Vancouver City Council

Anne McEnerny-Ogle, Mayor
Bart Hansen - Ty Stober - Erik Paulsen
Sarah J. Fox - Diana H. Perez - Kim D. Harless

City Council Meeting Agenda
January 12, 2026

In accordance with the Open Public Meetings Act (OPMA), the Vancouver City Council meeting will be open to in-person attendance. Options for viewing and/or participating in the meeting remotely will also be accommodated. The City Council will be attending this meeting in person.

All City Council workshops and meetings are broadcast (live closed captioning available), CVTV cable channels 23 / HD 323, and on the City's Facebook page.

Public testimony will be accepted regarding any matter on the agenda below. Advance registration will be required.

Unless otherwise announced by the Presiding Officer, each speaker may testify once for up to three minutes under each public testimony opportunity below and will be asked to provide their name and city of residence for the record.

Testimony will be accepted in the following manner:

- **Written comments submitted in advance**: Email comments to the City Council until 12:00 p.m. January 12, 2026. Comments will be compiled and sent to the City Council and entered into the record.
- **In-person or remote testimony during the meeting**: Register in-person at City Hall. In-person registration is open until 6:30 p.m. on January 12, 2026. Instructions will be provided on-site. Register to testify online. Online registration is open until 12:00 p.m. on January 12, 2026.

Visit the city's website for more information and to register under Community Testimony or call the City Manager's Office at (360) 487-8600.

Further instructions for accessing the virtual meeting (for remote testimony) will be provided upon registration.

Upon request, printouts of agenda materials will be provided, including large print.

Workshops: 4:45-5:45 p.m.

Vancouver City Hall - Council Chambers - 415 W 6th Street, Vancouver WA

Comprehensive Plan Update
(Approximately 1 hour)

Rebecca Kennedy, Deputy Community Development Director, Meredith Herbst, Planner, rebecca.kennedy@cityofvancouver.us, meredith.herbst@cityofvancouver.us

Council Dinner / Executive Session Re: Real Estate Negotiations RCW 42.30.110(1)(c) 45 min (5:45 - 6:30 PM)

Regular Council Meeting

6:30 PM

Vancouver City Hall - Council Chambers - 415 W 6th Street, Vancouver WA

Pledge of Allegiance

Call to Order and Roll Call

Approval of Minutes

Minutes - January 5, 2026

Community Communication
This is the place on the agenda where the public is invited to speak to Council regarding any matter on the Agenda not already scheduled for Public Hearing. (Separate instructions are provided for offering testimony on Public Hearing when applicable.) This includes the option to testify about Workshops. Members of the public addressing Council are requested to give their name and city of residence for the audio record. Speakers are to limit their testimony to a total of three minutes for all items combined.

Consent Agenda
The following items will be passed by a single motion to approve all listed actions and resolutions. There will be no discussion on these items unless requested by Council. If discussion is requested, the item will be moved from the Consent Agenda and considered separately – after the motion has been made and passed to approve the remaining items.

1. Loan Contract Approval for Water Station 9 Treatment System Project

Staff Report: 004-26

Request: On Monday, January 12, 2026, authorize the City Manager, or designee, to finalize and execute loan contract DWL31575-0 between the City of Vancouver and the Washington State Department of Health.

Mehrin Selimgir, Water Engineering Manager, Mehrin.Selimgir@cityofvancouver.us

2. Ratify 2026-2028 Collective Bargaining Agreement with the Vancouver Fire Department Guild (VFDG), Consisting of Employees from the Fire Marshal's Office

Staff Report: 005-26

Request: On Monday, January 12, 2026, authorize the City Manager, or designee, to approve the 2026-2028 collective bargaining agreement between the City of Vancouver and the Vancouver Fire Department Guild, which is comprised of represented Fire Marshal staff.

Antoinette Gasbarre, Human Resources Director, Antoinette.Gasbarre@cityofvancouver.us

3. Heights Land Donation

A RESOLUTION by the Vancouver City Council on behalf of the City of Vancouver, a Washington municipal corporation (the “City”) accepting a donation of real property from Tower

Mall Properties LLC, a Washington limited liability company (the “Donor”) to be used by the City for any public purpose.

Staff Report: 006-26

Request: On Monday, January 12, 2026, finalize and approve the resolution accepting a donation of real property from Tower Mall Properties LLC to be used by the City for any public purpose and authorize the City Manager, or designee, to execute agreements and other documents necessary to fulfill the transaction.

Amy Stewart, Real Estate Project Manager, amy.stewart@cityofvancouver.us

4. Public Defense Standards Revision

AN ORDINANCE repealing Vancouver Ordinance No. M-3927, adopted September 14, 2009 relating to the then-adoption of Vancouver Indigent Defense Standards; providing for approval of updated indigent standards by the City Manager or designee, and providing for an effective date.

Staff Report: 007-26

Request: On Monday, January 12, 2026, advance the ordinance to repeal Ordinance No. M-3927, which adopted Indigent Defense Standards in 2009, and authorizes the City Manager or designee to approve revised Indigent Defense Standards, setting the date for the second reading and public hearing for Monday, January 26, 2026.

Katherine Kelly, Program and Policy Development Manager, katherine.kelly@cityofvancouver.us

5. Approval of the Claim Vouchers

Request: Approve claim vouchers for January 12, 2026.

Public Hearings

The following item(s) are scheduled for public hearing. Members of the public addressing Council are requested to give their name and city of residence for the audio record. Unless otherwise announced by the Presiding Officer, speakers are to limit their testimony to three minutes for each public hearing.

6. City of Vancouver's Green Building Program

A RESOLUTION adopting the Green Building Program and providing agency-wide guidance on the incorporation of the Green Building Program into plans, programs, and policies.

Staff Report: 008-26

Request: On Monday, January 12, 2026, finalize and approve the resolution adopting the City's Green Building Program.

Rebecca Small, Senior Policy Analyst, Chad Eiken, Community Development Director, Chim Chune Ko, Principal Project Manager, rebecca.small@cityofvancouver.us, chad.eiken@cityofvancouver.us, ChimChune.Ko@cityofvancouver.us

Communications

A. From the Council

B. From the Mayor

C. From the City Manager

City Hall Trespass Policy

Community Forum
This is the place on the agenda where the public is invited to speak to Council regarding any matter. Members of the public addressing Council are requested to give their name and city of residence for the record. Speakers are to limit their testimony to a total of three minutes. Up to 90 minutes will be allotted for the Community Forum.

Executive Session Re: Potential Litigation RCW 42.30.110(1)(i) (30 min)

Adjournment

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OUR VANCOUVER

OUR FUTURE 2045

Comprehensive Plan – Draft Chapter Review (pt 1)

Rebecca Kennedy (she/her), Deputy Director, Community Development
Domenique Martinelli (she/her), Senior Planner, Community Development

Jan 12, 2026

Welcome

Purpose / Agenda

- Provide a high-level overview of draft chapters currently under development
- Discuss *why* each chapter is organized the way it is
- Highlight legal requirements, policy direction, and chapter organization
- Seek Council input on overall direction, clarity, and alignment
- Review next steps / discussion

Legal Framework: GMA

- Washington's Growth Management Act (GMA) establishes:
  - ➡ What elements must be included in a Comprehensive Plan
  - ➡ How those elements must relate to one another
- Implemented through:
  - ➡ RCW 36.70A – statutory requirements
  - ➡ WAC 365-196 – detailed guidance and Commerce checklists
- The Plan must demonstrate:
  - ➡ Internal consistency
  - ➡ Data-supported assumptions
  - ➡ Capacity to accommodate growth through 2045
- All chapters must be informed by analysis and coordinated with required elements

Legal Requirements by Chapter

- **Land Use and Development**
  - ➡ Mandatory element under RCW 36.70A.070(1)
  - ➡ Must designate the general distribution, location, and intensity of land uses within the city and UGA, establish densities sufficient to accommodate adopted population and employment growth, and demonstrate adequate land capacity over the 20-year planning period.
- **Housing**
  - ➡ Mandatory element under RCW 36.70A.070(2)
  - ➡ Must identify existing and projected housing needs across income levels, demonstrate sufficient capacity and zoning to meet those needs, address affordability and displacement, include shelters and supportive housing, and generally comply with recent state mandates *(HB 1220, HB 1110, HB 1337, etc.)*
- **Economic Opportunity**
  - ➡ Authorized element under RCW 36.70A.070(7), but not required
  - ➡ Must be based on analysis of the local economy and workforce, address employment trends, industry composition, commuting patterns, and future job needs, and remain internally consistent with land use, housing, transportation, and capital facilities.

Chapter Organization

Context → strategy → implementation

- Each chapter is designed to move the reader through:
  - ➡Historical context & current conditions
  - ➡Vision Statement
  - ➡Identification of key challenges and trends the policy strategy is responding to
  - ➡Relevant engagement feedback to support the claims
  - ➡Equity Lens – relevant supporting data and fact finding – how are equity priority communities impacted, and how do we address from a policy standpoint?
  - ➡Goals and policies to address those challenges and guide future decisions
- This structure ensures:
  - ➡Policies are grounded in data and lived experience
  - ➡Council can clearly see how decisions today affect long-term outcomes

Vision Statements

Plan Vision Statement

"Vancouver is an equitable and prosperous community, which ensures that all residents, businesses and organizations benefit from the growth and advancement we make together.

Vancouver will be recognized for our quality of life, as evidenced by affordable housing in vibrant, safe and walkable neighborhoods, access to jobs and economic opportunity for all, and leading-edge efforts to address climate change."

Land Use and Development (LU)

Vancouver is a connected and accessible City, with neighborhoods that provide a mix of housing, services and amenities, and employment centers that provide opportunities for family-wage jobs and economic mobility. We envision a City with a variety of affordable housing options, a robust economy that provides employment opportunities to all our residents, a strong network of healthcare, childcare and social services, and plentiful urban and natural amenities that foster a sense of inclusion for people of all backgrounds. We recognize that change will occur incrementally, in neighborhoods and corridors across the city, and that we must accommodate this change while preventing displacement, maintaining livability and protecting the natural environment. Our land use strategy will meet the needs of a growing City by building a resilient, thriving, connected and inclusive urban landscape that creates harmony between the built and natural environment and fosters choice and opportunity for all.

Vision Statements

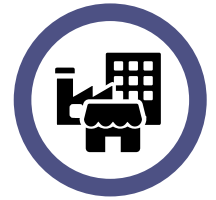
Housing (H)

Vancouver is a community where people have many choices about where they will live, all within thriving, active, and affordable neighborhoods that they are proud to live in. We envision a future where housing is affordable and accessible to everyone and reflects the diversity of housing needs in the community. We commit to increasing opportunities for homeownership and wealth creation and prioritizing the needs of historically excluded communities. Our strategy aims to maximize the number and range of housing options available, embrace non-traditional design, construction and ownership methods, add middle, culturally-specific and multigenerational housing, and increase housing options near essential services education, healthcare, grocery stores, childcare and recreation opportunities.

Economic Opportunity (EO)

In Vancouver, all community members have access to stable jobs that allow them to support themselves, their families and communities. Vancouver prioritizes wealth creation and financial stability for historically excluded groups, growing economic opportunity for all, developing a green economy that mitigates the impacts of climate change, and supporting innovation in business and industry. We recognize that access to housing and childcare is essential to building a resilient and equitable economy. We believe in community-centered economic development that focuses on people and uplifts our existing workforce while providing options for those who will be here in the future. We commit to building and strengthening partnerships to support small businesses and startups, expand workforce training opportunities, break down barriers to entry and promote upward mobility, particularly for historically underserved and excluded communities.

Land Use – Policy Approach



LU-1 **Connected and Accessible Neighborhoods**

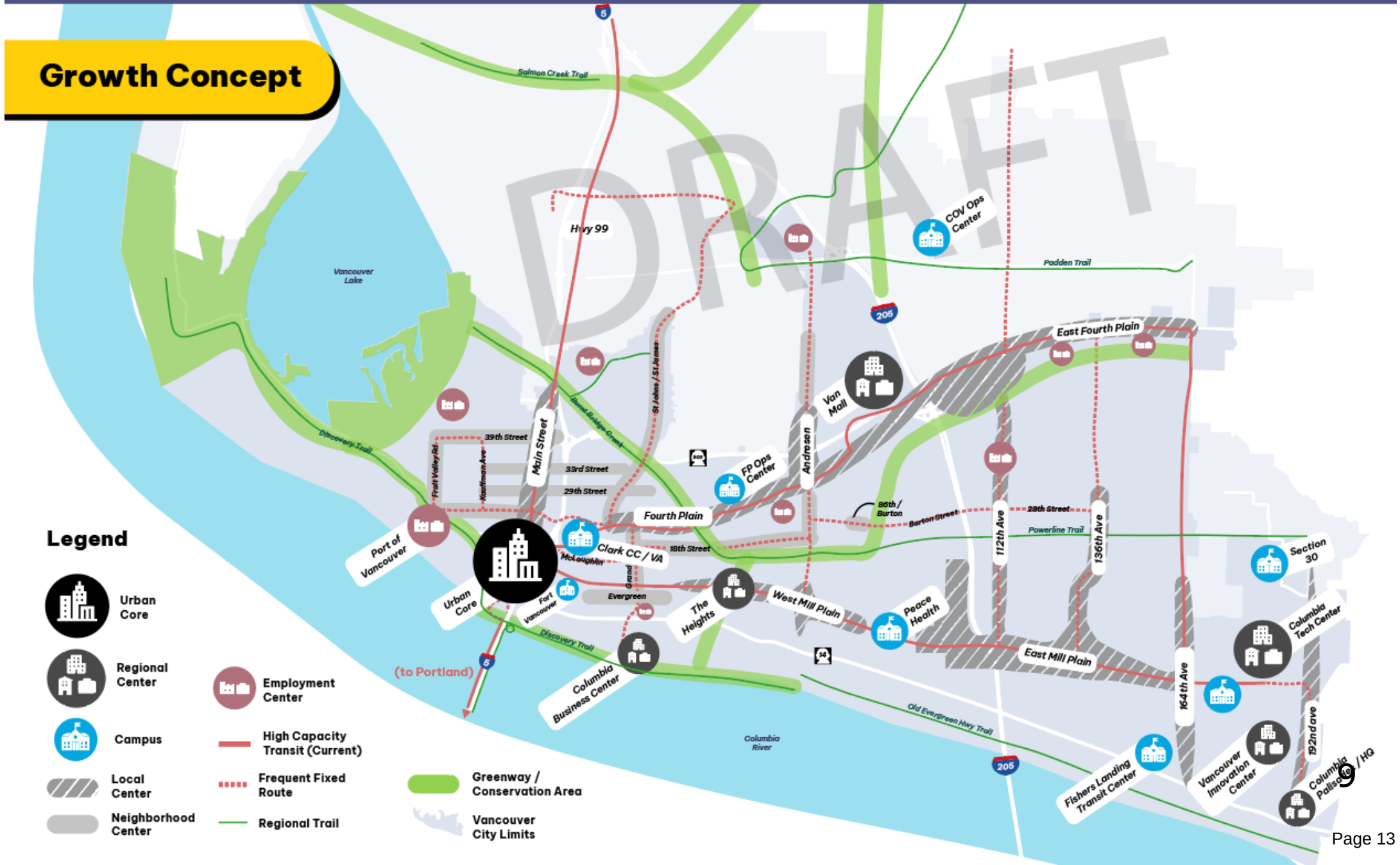
LU-2 **Preserve and Invest in Employment Land**

LU-3 **Reduced Carbon in the Built Environment**

LU-4 **Efficient Use of Land**

- Responds to historic development patterns characterized by low-density, single-use zoning that produced uneven access to services and amenities.
- Establishes an updated **growth concept** that directs a lot of new housing, jobs, and services to areas already served by infrastructure and transit, while also adding housing and service options in neighborhoods around the City.
- Uses land use policy to directly address today's constraints: limited vacant land, housing underproduction, affordability pressures, and widening disparities in access to opportunity.
- Preferred alternative is a key factor for coordinating desired housing, transportation, climate, and economic outcomes.

Growth Concept



Growth Concept

- The Growth Concept functions as the chapter's organizing framework and is intentionally introduced early to anchor all subsequent policies.
- Identifies where growth is **encouraged**, **managed**, or **limited**, creating clarity for future zoning, infrastructure investment, and development decisions.
- Defines a hierarchy of **place types**—*Urban Core*, *Regional Centers*, *Local Centers*, *Neighborhood Centers*, *Employment Centers*, *Campuses*, *and Greenway/Conservation Areas*.
- Each place type establishes expectations for:
  - ➡ Scale and intensity of development
  - ➡ Mix of uses and housing types
  - ➡ Relationship to transit, services, and open space
- This approach allows growth to be concentrated where it can deliver the greatest public benefit while protecting environmentally sensitive areas.

Housing – Policy Approach

- **H-1** Housing Production
- **H-2** Diverse and Accessible Housing
- **H-3** Reduce Homelessness
- **H-4** Prevent Displacement

- **Grounded in quantified need:** 38,000 new housing units by 2045, spanning permanent supportive housing, deeply affordable units, middle housing, and market-rate homes to both meet future growth and close the existing housing deficit.
- **Production + affordability as a single strategy:** intentionally links overall housing production, zoning capacity, and affordability, recognizing that underproduction is a primary driver of rising costs, displacement, and homelessness.

Housing – Policy Approach

H-5 Access to Homeownership

H-6 Affordable Housing

- **Integrated with land use and zoning**: Housing policies are closely aligned with the Land Use chapter and the updated zoning framework.
- **Equity- and displacement-informed**: applies a formal Equity Lens and analyzes displacement risk to identify where growth pressures intersect with vulnerable populations, and pairs new capacity with anti-displacement strategies.

Econ Opp – Policy Approach

EO-1 Invest in People

EO-2 Thriving Economy and Industries

EO-3 Circular and Sustainable Economy

EO-4 Place Based Economic Growth

- Establishes a shift from a narrow focus on job growth toward **economic mobility and access** for residents.
- Recognizes Vancouver's role as a regional employment center while acknowledging uneven distribution of economic benefits.
- Prioritizes:
  - ➡ Workforce development and career pathways
  - ➡ Small business support and entrepreneurship
  - ➡ Preservation and strategic use of employment lands
  - ➡ Emphasizes place-based economic development, particularly along key corridors and in areas experiencing reinvestment pressure.
- Aligns economic policies with housing affordability, job-housing balance, and multimodal transportation access.

Next Steps

- January 26, Draft Code Review Part I
- February 2: Draft Chapter Review Part II
  - ➡ Climate, Parks, Transportation, Public Facilities
- Mid February: Release of Draft Plan & Title 20
- February 23: Draft Code Review Part II
- March 16: Draft Chapter Review Part III
  - ➡ Equity and Inclusion, Community Experience, Annexation, Implementation
- March 23, Draft Code Review Part III

Questions and Discussion

www.beheardvancouver.org/plan2045

CITY OF Vancouver WASHINGTON

MEMORANDUM

DATE: January 12, 2026

TO: Vancouver City Council

FROM: Lon Pluckhahn, City Manager

RE: **OUR VANCOUVER – Draft Comprehensive Plan Chapters – Land Use (LU), Housing (H), and Economic Opportunity (EO)**

CC: Rebecca Kennedy, Deputy Director, Community Development Department
Domenique Martinelli, Senior Planner, Community Development Department

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Intent

This is the first in a series of three workshops focused on draft Our Vancouver - Comprehensive Plan 2045 chapters. The intent of these workshops is to provide Council with early drafts for review, consideration and comment prior to releasing a full draft for community review.

Today's workshop is focused on the draft Land Use and Development (LU), Housing (H), and Economic Opportunity (EO) chapters. Staff is looking for Council review and comment on the draft chapters broadly as well as the following:

- Layout, readability, information presented
- Completeness and legibility of information presented, including vision statement, community feedback, supporting analysis and data, and goals and policies.
- Gaps and areas needing further clarification or refinement

This memo summarizes the legal framework guiding each chapter, the key issues identified through technical analysis and community engagement, the overarching policy strategies, and how each chapter is organized to support implementation.

Background

The City of Vancouver's Comprehensive Plan provides the overall long-term vision and policy direction to manage the built and natural environment in Vancouver for the next 20 years and provide necessary public facilities to achieve that vision. The City adopted its first comprehensive plan under Washington's Growth Management Act in 1994 (Chapter 36.70A RCW), with a major re-write occurring in 2004, and a less substantive update occurring more recently in 2011. As demographic changes, market conditions, council priorities and other factors have shifted since 2011, it's necessary to re-imagine the existing growth strategy as part of the current Comprehensive Plan Periodic Review cycle.

The city began the process of updating the plan in late 2022, and has conducted a multi-phase, equity-centered community engagement process to inform the Plan's vision, the land use framework, and overall policy direction. Engagement included hundreds of in-person and virtual conversations, extensive survey and mapping activities, sustained collaboration with Community Partners representing equity-priority populations and community working groups representing specific interest groups, and multiple City Council and Planning Commission workshops at key milestones. Input gathered across visioning, alternatives development, Draft EIS review, and refinement of the Preferred Alternative directly informed the draft policies and growth framework now before Council.

Since 2023, several foundational technical analyses have been prepared to inform this update, including the Housing Needs Assessment, Economic Conditions and Opportunities Analysis, Equity Analysis, Climate Vulnerability Assessment, and Health Impact Assessment. This work is reflected in each chapter narrative related to analysis and data, as well as the goals and policy sections.

Problem Statement and Input from Engagement

Across all three chapters covered in this workshop— Land Use (LU), Housing (H), and Economic Opportunity (EO)— technical analysis and community engagement revealed a consistent set of interrelated challenges shaping Vancouver's future. Rapid population and employment growth, a constrained land supply, and restrictive zoning regulations have placed significant upward pressure on housing costs and decreased household stability and community prosperity. While Vancouver functions as a major employment center in the region, many residents face barriers to accessing living-wage jobs, affordable housing, and essential services close to where they live. Historic land use patterns, characterized by low-density development and separation of uses, have contributed to car dependence, uneven access to amenities, and disparities in health, economic opportunity, and environmental conditions across the city.

Community members repeatedly emphasized the importance of creating connected and accessible neighborhoods that provide housing choices, access to jobs, services, parks, and community spaces, and opportunities to build social connection. Residents expressed concern about displacement, housing affordability, and the loss of neighborhood-serving businesses, particularly in communities that have historically experienced underinvestment and more recently face increasing displacement pressure. Small businesses, community-based organizations, and workforce partners highlighted the need for land use and economic strategies that support local entrepreneurship, workforce pathways, and inclusive economic growth without pricing out residents or businesses.

At the same time, engagement underscored strong support for allowing more housing in neighborhoods across the City, directing significant growth to centers and corridors, improving walkability and transit access, protecting employment lands, and using land more efficiently to meet climate and sustainability goals. Participants consistently called for policies that align housing, land use, and economic development decisions to reduce long commutes, lower transportation costs, and ensure that new investment benefits existing communities. The goals and policies in these chapters respond to these shared concerns by

advancing a coordinated strategy that accommodates growth, expands access to opportunity, and improves quality of life while addressing inequities rooted in past planning decisions.

Land Use and Development

Legal Requirements - The Land Use and Development chapter is a mandatory element under RCW 36.70A.070(1) and establishes the land use framework that supports all other Comprehensive Plan elements. State law requires cities to designate the general distribution and intensity of land uses, including housing, commerce, industry, recreation, and open space, and to demonstrate sufficient land capacity to accommodate projected population and employment growth. State law establishes both substantive requirements for what must be included in the land use element and procedural requirements for how land use decisions must be supported, coordinated, and demonstrated through data and analysis.

Under RCW 36.70A.070(1) and outlined in WAC 365-196-405, the land use element must designate the proposed general distribution, location, and extent of land uses within the City. At a minimum, the land use chapter must address:

- General land use categories, including:
  - Housing
  - Commerce
  - Industry
  - Recreation
  - Open space and green space
  - Public facilities and utilities
  - Urban and community forests (as applicable)
- Population densities and building intensities sufficient to accommodate projected growth
- Estimates of future population growth, consistent with adopted countywide population allocations
- General development patterns, including where growth is intended to occur and where it is limited

The land use element must demonstrate that sufficient land capacity exists to accommodate anticipated residential and employment growth over the 20-year planning period. Land Use assumptions must be realistic and capable of achieving the adopted growth targets.

Policy Direction- The draft chapter reflects a deliberate shift from historic development patterns that emphasized separation of uses toward a more compact, connected, and inclusive urban form. As described in the chapter introduction, past development in much of Vancouver primarily emphasized low-density, single-use zoning, limited mixing of uses, and concentration of higher-intensity development largely in downtown, resulting in car dependence, fewer walkable destinations, and uneven access to services and community spaces. While the 2011 Comprehensive Plan began redirecting growth toward infill and transit-oriented development, the updated Land Use chapter responds to today's realities:

limited remaining vacant land, housing unaffordability and underproduction, and widening disparities in access to opportunity.

- **Growth Concept –** This plan's policy direction is mobilized through an updated growth concept that organizes future development into a connected network of centers, corridors, employment districts, and conservation areas. The framework directs a significant portion of new housing, jobs, and services to places already served—or planned to be served—by infrastructure, transit, and community amenities, while also allowing for more housing and mixing of uses in neighborhoods around the City. The draft chapter includes a Connected and Accessible Neighborhoods analysis that demonstrates significant disparities in access to parks, grocery stores, healthcare, and transit across the City. The growth concept responds to this data by adding more capacity for housing and jobs in areas well served, and outlining strategies for areas that are underserved.
- **Health and Climate -** The chapter further advances land use policy as a tool to improve economic mobility and address climate change. Goal LU-3 frames the built environment as a determinant of health and a major driver of greenhouse gas emissions, citing transportation and buildings as the largest contributors to community-wide emissions. Policies that emphasize compact development, transit-oriented growth, adaptive reuse of existing buildings, and investments in active transportation are identified as key strategies to reduce emissions while improving health outcomes and mobility options.
- Goal LU-4 focuses on the **efficient use of land**, recognizing Vancouver's finite land supply and the need to prioritize infill, redevelopment, and reuse of underutilized spaces. This goal also reinforces coordination with capital facilities planning and regional partners to ensure growth occurs where services can be provided efficiently and sustainably.

Chapter Organization - The chapter is organized to reflect this integrated strategy and to guide the reader from vision to implementation:

- **Introduction and Vision** - Establishes the role of land use in shaping growth, equity, health, and quality of life, and sets a vision centered on accessibility, inclusion, efficient land use, and preventing displacement.
- **Citywide Growth Concept** - Presents the overarching centers and corridors framework and identifies different types and scales of growth nodes and employment areas, supported by a citywide Growth Concept Map.
- **Growth Nodes** - Defines the role, scale, and function of the Urban Core, Regional Centers, Local Centers, Neighborhood Centers, Employment Centers, Campuses, and Greenway and Conservation Areas, and identifies where each occurs within the city.
- **Plan Designations and Development Types** - Explains how the growth framework is implemented through Comprehensive Plan designations and updated zoning districts, including expected building scale, intensity, and mix of uses.
- **Connected and Accessible Neighborhoods -** Presents analysis of access to daily needs and establishes connected and accessible neighborhoods as a core organizing principle guiding land use decisions.
- **Goals and Policies** - Organizes policies around four land use goals:
    - LU-1: Connected and Accessible Neighborhoods
    - LU-2: Preserve and Invest in Employment Land

- LU-3: Reduced Carbon in the Built Environment
- LU-4: Efficient Use of Land

Housing

Legal Requirements - The Housing chapter is a mandatory element of the Comprehensive Plan under RCW 36.70A.070(2) and must address the existing and projected housing needs of all economic segments of the community. State law requires cities to plan for sufficient land capacity and policies to accommodate housing growth over the 20-year planning period, while also addressing affordability, housing stability, and access to opportunity.

Under RCW 36.70A.070(2) and WAC 365-196-315, the housing element must include an inventory and analysis of existing and projected housing needs, identify sufficient land capacity to accommodate those needs, and establish policies to encourage the availability of housing affordable to households at a range of income levels. The Housing chapter must also demonstrate consistency with countywide planning policies, adopted population allocations, and recent state housing legislation related to housing supply, middle housing, STEP (shelters, transitional, emergency and permanently affordable) housing, fair housing, and racially disparate impacts.

The Housing chapter is required to be internally consistent with other elements of the Comprehensive Plan, particularly Land Use, Transportation, Capital Facilities, and Economic Opportunity, to ensure that housing growth is supported by adequate infrastructure, access to jobs and services, and coordinated investment.

Policy Direction - The Housing chapter establishes housing as essential infrastructure that underpins community health, economic mobility, climate resilience, and overall quality of life. Technical analysis and engagement conducted during the plan update confirm that Vancouver faces a significant housing supply deficit, rising housing costs, and growing displacement risk, particularly for low-income households and communities of color. The Housing Needs Assessment identifies the need to accommodate more than 38,000 new housing units by 2045 to meet future growth and address existing shortfalls.

Rather than treating affordability and supply as separate issues, the chapter advances a comprehensive housing strategy that links increased housing production, expanded zoning capacity, and targeted affordability interventions. Policies emphasize increasing overall housing supply—including middle housing and higher-density residential development in areas served by transit and amenities—while also expanding affordable and supportive housing options for households most at risk of housing instability.

A central component of the chapter is a focus on housing stability and displacement prevention. The chapter applies an equity and displacement lens to identify neighborhoods

where market pressures intersect with vulnerable populations and pairs new housing capacity with policies that preserve existing affordable housing, support homeownership opportunities, and mitigate displacement impacts. Housing policies are intentionally coordinated with land use and economic development strategies to promote job–housing balance, reduce long commutes, and ensure that new investment benefits existing communities.

Chapter Organization - The Housing chapter is organized to move from need to response, ensuring that policies are grounded in data, equity considerations, and implementation feasibility:

- **Introduction** - Establishes housing as essential infrastructure for health, economic stability, and quality of life, and frames the primary challenges the chapter addresses, including underproduction, affordability, homelessness, and displacement.
- **Vision Statement** - Articulates a future where all residents have access to safe, stable, and attainable housing, with an emphasis on housing choice, affordability, cultural inclusion, and opportunities for long-term stability and wealth-building.
- **Housing Needs Assessment Foundation and Engagement Themes** - Explains that the chapter is grounded in the Housing Needs Assessment and summarizes key themes heard through community engagement, including the need for middle housing, culturally responsive housing, long-term affordability, and supportive housing options.
- **Community Demographics and Household Trends** - Presents data on population growth, changing household composition, income distribution, aging trends, and job–housing relationships that influence housing demand and location preferences.
- **Existing Housing Conditions and Market Trends** - Describes current housing stock, tenure, cost escalation, cost burden trends, and how historic zoning and development patterns shaped today's housing supply and affordability challenges.
- **Projected Housing Needs and Required Targets** - Establishes the total housing need through 2045 and breaks that need down by income level and housing type, including permanent supportive housing and emergency shelter needs.
- **Relationship to the Growth Concept and Zoning Capacity** - Explains how the Land Use Growth Concept and updated zoning framework increase residential capacity, expand allowed housing types, and serve as the primary implementation tools for meeting housing needs.
- **Displacement Risk and Housing Stability Analysis** - Identifies neighborhoods and populations most vulnerable to displacement, explains displacement risk factors, and frames housing stability as a core policy priority.
- **Equity Lens and Racially Disparate Impacts** - Applies a racial equity lens to housing conditions and outcomes, acknowledging how historic and current policies have produced disparate impacts and setting the foundation for more equitable housing policies.
- **Goals and Policies** - Organizes policies around key goals, including:
    - H-1: Housing Production

- H-2: Diverse and Accessible Housing
- H-3: Reduce Homelessness
- H-4: Prevent Displacement
- H-5: Access to Homeownership
- H-6: Affordable Housing

Chapter 5 – Economic Opportunity

Legal Requirements - The Economic Opportunity chapter is an optional element of the Comprehensive Plan under **RCW 36.70A.070(7)** and provides a policy framework for addressing economic growth, employment, and access to opportunity. While not required by statute, state law expressly authorizes jurisdictions to include an economic development element, and the City of Vancouver has elected to do so in recognition of its role as a regional employment center and the importance of inclusive economic growth to existing policy priorities and overall plan implementation.

Under **RCW 36.70A.070(7)** and outlined in **WAC 365-196-435**, an economic development element should be informed by an analysis of the local economy and address employment conditions, workforce characteristics, and future economic needs. Consistent with this guidance, the Economic Opportunity chapter addresses:

- Existing economic conditions and historical context
- Employment trends and industry composition
- Workforce characteristics and access to opportunity
- Major employment centers and commuting patterns
- Projected job growth and employment land capacity

The Economic Opportunity chapter must also be internally consistent with required elements of the Comprehensive Plan, as outlined in **WAC 365-196-300**. Accordingly, economic policies are coordinated with land use designations, housing availability, transportation access, and infrastructure planning to ensure that economic growth is supported by adequate capacity and services.

Policy Direction and Chapter Organization – Economic Opportunity

The Economic Opportunity chapter establishes a comprehensive framework for supporting inclusive, resilient, and sustainable economic growth in Vancouver through 2045. While Vancouver functions as a major employment center in the region, economic benefits have not been evenly distributed across communities. Rising housing costs, transportation barriers, and disparities in access to education, training, and capital have limited economic mobility for many residents, particularly those in historically marginalized communities. At the same time, the City faces increasing competition for talent and investment, evolving workforce needs, and the need to align economic growth with climate and equity goals.

This chapter advances a policy direction that prioritizes inclusive economic development, recognizing that a strong economy depends on the ability of residents to access living-wage

jobs, career pathways, and entrepreneurship opportunities close to where they live. Rather than focusing solely on job growth or business attraction, the chapter emphasizes economic mobility, workforce access, and support for small businesses and local employers. A key component of the chapter includes a focus on place based economic development that is integrated with future growth nodes and responsive to community needs. It also reinforces the importance of preserving and strengthening employment lands to ensure Vancouver can continue to support a diverse range of industries, including manufacturing, logistics, healthcare, education, and emerging sectors.

The Economic Opportunity chapter is aligned with the Land Use and Housing chapters, recognizing the ties between land use patterns, housing affordability, inventory of commercial space and shovel ready sites, and transportation access. Policies emphasize supporting job-housing balance, and directing employment growth to employment centers outlined in the growth framework that are well served by infrastructure and transit. The chapter also integrates equity considerations by prioritizing investments and strategies that address barriers faced by BIPOC communities, LGBTQIA+ residents, people with disabilities, youth, and low-income households.

Chapter Organization - The chapter is organized as follows:

- **Introduction and Economic Context** - Describes Vancouver's role in the regional economy, key employment trends, and workforce characteristics, including industry composition, wage distribution, and job accessibility.
- **Vision Statement** - The chapter vision focuses on building an inclusive, resilient economy where all residents can access stable, living-wage jobs and achieve long-term financial security. It prioritizes wealth creation for historically excluded communities, supports a green and innovative economy, and advances community-centered strategies that strengthen the workforce, support small businesses, and expand upward mobility.
- **Current Economy and Shifting Trends** - Documents current conditions in the Vancouver market today, and describes a transition from a manufacturing and natural resource-heavy economy toward a more professional, service-oriented, and knowledge-based economy. It describes population growth, increasing educational attainment, rising incomes, and the influence of remote work and migration from the Portland metro area, while also noting the implications of these trends for housing demand and land use.
- **Equity Lens and Barriers to Opportunity** - Identifies disparities impacting the workforce, emphasizing that rising incomes and job growth have coincided with increasing housing costs, displacement risk, and uneven economic outcomes. It highlights racial and ethnic disparities in income, educational attainment, and housing cost burden, and establishes housing affordability as a critical constraint on economic participation and productivity—creating a clear linkage to the Housing and Land Use chapters.
- **Employment Land Capacity and Projections** – Grounds the economic strategy in the Economic Conditions and Opportunity Analysis findings and countywide employment forecasts. This section establishes Vancouver's expected share of regional job growth,

the amount of available employment land within the city and UGA, and the need to plan proactively for future job capacity.

- **Engagement Feedback** – Highlights key engagement takeaways gathered during the planning process related to the chapter, which include:
  - Increasing family wage jobs that do not require advanced education or training.
  - Accommodating a variety of uses and use cases for small business in land use and zoning codes, and supporting entrepreneurs.
  - Encouraging programs to provide workforce development opportunities and technical assistance for small and emerging businesses, especially for equity priority communities
  - Prioritizing youth education and developing a workforce pipeline
- **Goals and Policies**
  Organizes policies around key goals, including:
  - EO-1: Invest in People
  - EO-2: Thriving Economy and Industries
  - EO-3: Circular and Sustainable Economy
  - EO-4: Place Based Economic Development

Next Steps
Over the next couple months, City Council will continue its review of the draft Comprehensive Plan and implementing regulations through a series of several workshops. Council will conduct a second round of chapter review on February 2, with discussion centered on the Climate, Parks, Transportation, and Public Facilities chapters, followed by a third workshop on March 2 focused on the Equity and Inclusion, Community Experience, Annexation, and the Implementation chapters. These workshops will be staggered with additional workshops focused on Council review of the updated development code. The Draft Comprehensive Plan and Title 20 Land Use and Development Code will be released for public review in mid-February, to ensure alignment with State Department of Commerce review timelines and meeting the June 2026 adoption deadline.

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Attachments
- Draft Land Use Chapter Draft Housing Chapter
- Draft Economic Opportunity Analysis

Land Use and Development

3

Introduction

One of the biggest opportunities that the City has to influence positive change in community is through regulating the use of land. The Land Use Chapter of the Comprehensive Plan serves as a framework to guide the development, preservation, and management of land resources within Vancouver. It identifies a growth concept for future development and provides a set of policies to guide and manage this growth. As the population grows and the demand for housing, jobs, services, amenities, parks and open space, and the infrastructure needed to serve this demand increases, it is essential to establish a plan for how land will be utilized to meet current and future needs while balancing environmental sustainability, economic vitality, and quality of life.

Since WWII, areas in Central and East Vancouver have developed as low-density, suburban expansions of previously exurban and rural land. Past Comprehensive Plans adopted by the City focused and emphasized lower density development patterns aimed at preserving single family neighborhoods, discouraging integration and mixing of different uses , and concentrating higher

Vision: Land Use and Development

Vancouver is a connected and accessible City, with neighborhoods that provide a mix housing, services and amenities, and employment centers that provide opportunities for family-wage jobs and economic mobility. We envision a City with a variety of affordable housing options, a robust economy that provides employment opportunities to all our residents, a strong network of healthcare, childcare and social service organizations, and plentiful urban and natural amenities that foster a sense of inclusion for people of all backgrounds. We recognize that change will occur incrementally, in neighborhoods and corridors across the city, and that we must accommodate this change while preventing displacement, maintaining livability and protecting the natural environment. Our land use strategy will meet the needs of a growing City by building a resilient, thriving, connected, and inclusive urban landscape that creates harmony between the built and natural environment and fosters choice and opportunity for all.

intensity buildings in downtown and along major transportation corridors. Neighborhoods developed with fewer community gathering spaces or walkable destinations, leading to increased car dependence and fewer "third places" such as cafés, libraries, and parks where residents naturally build connections. These patterns have contributed to uneven access to services, particularly in areas with limited childcare, grocery stores and health facilities, and for community members that rely on walking, rolling and transit to access daily needs and educational and economic opportunities.

The 2011 Comprehensive Plan looked to address some of these impacts, by making a shift toward infill and redevelopment, with policies aimed at maximizing the use of available sites and encouraging transit-oriented development. These efforts have, over time, led to the development of more compact neighborhoods and mixed-use districts, and facilitated significant investment in previously underserved and underutilized areas. Given projected population growth and associated demand for housing and jobs as well as a lack of undeveloped land in the City, the 2025-2045 Comprehensive Plan seeks to build and expand on the 2011 Plan, supporting development in areas with access to public transportation and essential services, allowing for more and different housing

Community Feedback

Below is feedback that was received during the engagement process for the Comprehensive Plan, that informed the approach outlined in the growth concept and

- **Important places** - Many people value access to specific uses in the community and would like to see them maintained and increased.
    - **Community centers**, including teen centers, religious facilities, and a desire for more grassroots gathering spaces.
    - **Food-related uses**, including grocery stores, the farmers market, and restaurants.
    - **Medical and healthcare** uses, including hospitals, specialty clinics, and emergency rooms.
    - **Parks and natural areas**, including the Columbia River, sports fields, and the Waterfront.
    - **Educational facilities**, including trade and specialty schools, the Water Resource Education Center, and libraries.
    - **Commercial spaces**, including Vancouver Mall, gyms, and amusement/entertainment spaces
- **Identity-specific places** – Many people value and desire places that reflect a specific aspect of their identity and that allow them to express themselves and connect with others who share that identity.

choices in neighborhoods around the City, and facilitating job growth and investment in mixed use centers and corridors.

Vancouver's updated growth concept directs future development into a network of centers, corridors, and employment districts designed to create more connected, equitable, and resilient neighborhoods. Instead of continuing past patterns of low-density sprawl that fueled car dependence and disparities in access to services, the new framework prioritizes compact, mixed-use growth in the Urban Core and a variety of Regional and Local Centers and Corridors. Residential neighborhoods will diversify with a broader mix of housing types and commercial services, while employment and industrial areas will be conserved for jobs and greenways and natural areas will be protected as critical community assets.

The remaining sections of this chapter outline the plan's growth concept and the corresponding classifications, a comprehensive zoning map for the City based on the growth concept, a detailed description of the each of the zone districts that outlines the uses and scale of development associated with each, and the goals and policies designed to support implementation.

Countywide Planning Policies

The Land Use Chapter is consistent with Clark County Countywide Planning Policies and reflects coordination with the countywide population and housing allocation process. Vancouver's growth concept, land use designations, and zoning approach supports regional goals for compact urban development, efficient service delivery, and environmental stewardship, ensuring local land use decisions align with broader county and regional planning efforts.

Growth Concept

DRAFT

Legend

- Urban Core
- Regional Center
- Campus
- Local Center
- Neighborhood Center
- Employment Center
- High Capacity Transit (Current)
- Frequent Fixed Route
- Regional Trail
- Greenway / Conservation Area
- Vancouver City Limits

Urban Core

The Urban Core represents the City's highest concentration of housing, jobs, services, and amenities. It is envisioned as a vibrant, mixed-use environment that brings people together to live, work, shop, and engage in civic and cultural activities in a walkable and transit-rich setting. Growth in the Urban Core emphasizes density and vertical mixed-use development types, while also celebrating preserving historic areas.

The area is defined by a rich layering of uses—housing above active retail, large community gathering spaces such as Esther Short Park, Main Street, the Waterfront, the Convention Center, and the Farmers Market, and a strong presence of local businesses, restaurants, and entertainment. The Urban Core functions as a regional anchor that draws community members and employees from around the region and is a focal point for visitors to Vancouver. The Urban Core has a walkable, pedestrian oriented street network, and is connected to major arterials and accessible via the state highway system.

Sub-Focus Areas

1. Downtown / Esther Short
2. Waterfront
3. Downtown West
4. Uptown
5. Historic Preserve

Regional Center

Regional Centers are planned as compact, high-intensity hubs that serve as secondary anchors for housing, amenities, services and jobs outside of the Urban Core, and function as regional hubs that reduce the need to travel long distances for work or daily needs. Regional Centers are strategically located along major transportation corridors that are or will be served by frequent transit, and are intended to grow into vibrant districts that complement the Urban Core by offering accessible opportunities for living, employment, and entertainment.

These areas are envisioned with mid-rise housing, regional office space, retail districts, and community services, all supported by strong multimodal connections. Public investments in infrastructure, streetscapes, and transit access will support and catalyze private development. Regional Centers should be a focal point for locating affordable housing and essential services, ensuring that historically underserved communities benefit from new investment. Over time, these centers are expected to evolve into distinctive destinations with unique characters and identifies.

Identified Areas

- Columbia Business Center
- The Heights
- Van Mall
- Columbia Tech Center
- Vancouver Innovation Center
- Columbia Palisades/HQ

Local Center

Local Centers are intended to be hubs of housing, essential services and amenities that are accessible to most neighborhoods in the city via public transportation or small-scale mobility. They provide local and often smaller-scale destinations for shopping, dining, small businesses, and cultural life that are more accessible than regional centers or the Urban Core, and they accommodate a greater share of housing capacity than typical neighborhoods. They include jobs and may have employment centers nearby.

These areas are characterized by a mix of uses but a lower scale of development that what is seen in the urban core and regional centers ,and include mixed use buildings as well as stand alone housing, office, retail and services. Local centers are served by busy arterial streets and accessible via the City's pedestrian and bike and small mobility modal networks. Where current multimodal facilities do not meet City standards, these areas should be priorities for future improvements. Local centers should be focal points for affordable housing and business district development.

Identified Areas

- Main Street
- Central Fourth Plain
- East Fourth Plain
- West Mill Plain
- Central Andresen
- East Mill Plain
- Mill Plain and 205
- 112th corridor
- 136th/137th corridor
- 164th corridor
- 192nd corridor

Neighborhood Center

Neighborhood Centers are smaller-scale destinations that serve surrounding neighborhoods with access to everyday goods and services. They typically feature a mix of small grocery stores, cafes, childcare facilities, healthcare offices, and other neighborhood-serving businesses. They feature a variety of low and medium scale housing options, including townhomes, plexes, apartments, and small mixed-use buildings, as well as standalone commercial and office buildings.

Neighborhood Centers help more evenly distribute connected and accessible neighborhoods throughout the city so residents can walk or bike to basic services and amenities. Development will often occur incrementally through adaptive reuse of existing buildings, small infill projects, and more middle housing options. These areas are generally served by lower volume streets with existing or planned multimodal facilities, reducing reliance on cars for short trips.

Identified Areas

- Fruit Valley Residential Area
- 39th Street
- West Fourth Plain
- 33rd Street
- 29th Street- Kauffman to Norris
- Evergreen and Grand
- Grand between Mill Plain and Fourth Plain
- St. Johns/St. James couplet
- 18th Street
- Andresen South of Fourth Plain
- Burton & 86th

Campus

Campuses are large, multi-building sites that serve as anchors for education, healthcare, government, and employment. They include universities, hospitals, corporate headquarters, and research facilities and often integrate these primary uses with housing, services, amenities, athletic facilities, public open space or cultural venues. Their development is primarily guided by multi-phase master plans and public-private partnerships to improve infrastructure.

In Vancouver, these institutions include Clark College, the Department of Veteran's Affairs, Clark County Public Health, the Fort Vancouver Historic Reserve, C-TRAN, and the PeaceHealth Medical Campus, as well as priority redevelopment sites like Section 30, the Fisher's Landing Transit Center and the existing and new City Operations Center sites.

Many are looking to expand their uses to accommodate population-specific housing, and are often important providers of social services and workforce development opportunities. Their expansion will require strong partnerships between the City and other public agencies as well private developers to align growth with broader plan goals.

Identified Areas

- Clark College / VA
- Fort Vancouver
- Peacehealth Medical Campus
- Columbia Tech Center
- Section 30
- Fisher's Landing Transit Center
- Fourth Plain Ops Center
- New City Ops Center
- Clark College at CTC

Employment Centers

Employment Centers are districts primarily dedicated to providing jobs, with limited or no housing. They protect and enhance Vancouver's supply of industrial, manufacturing, office, and research space, ensuring the city maintains a strong economic base. These areas often include large parcels and flexible development sites that can support advanced manufacturing, logistics, warehousing, and associated office needs. Employment Centers are vital for sustaining living-wage jobs, diversifying the economy, and retaining businesses that may not be viable in higher-cost mixed-use environments.

Future development is expected to include modernization of industrial facilities, integration of clean and green industries, and improvements to freight and logistics infrastructure. To remain competitive, Employment Centers will often require significant investments in utilities and transportation connections. These areas must balance economic productivity with environmental stewardship, ensuring land use efficiency while aligning with the city's climate and equity goals. Concentrating job growth in well-defined areas protects employment lands and creates stable locations for long-term workforce opportunity.

Identified Areas

- Port of Vancouver
- Fruit Valley Industrial Area
- Lower Grand Employment Area
- West Minnehaha Industrial Area
- Van Mall North Industrial Area
- Andreesen + Fourth Plain
- 112th Industrial Area
- East Fourth Plain Industrial Area

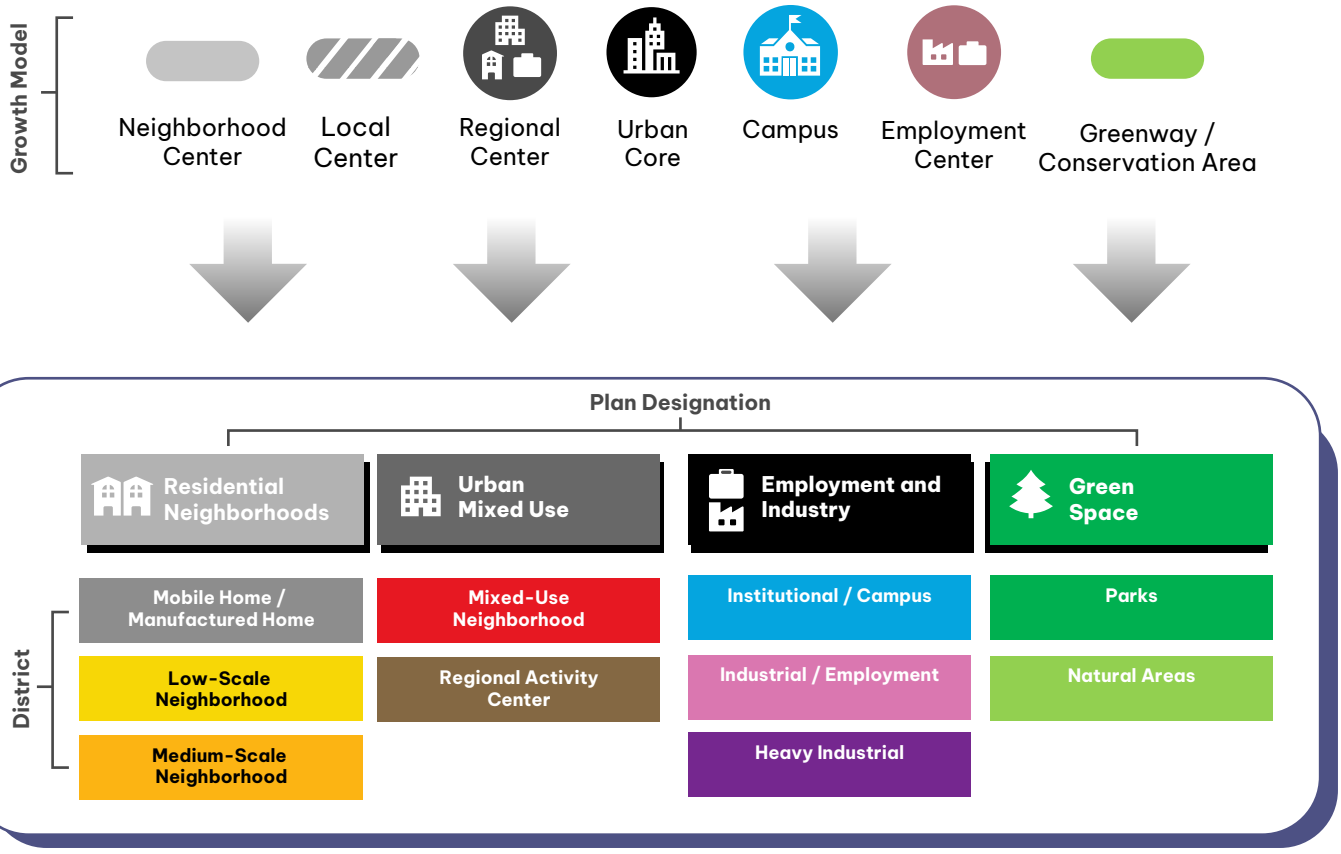
Moving From Concepts to Implementation

Areas designated as Urban Core, Regional Center and Local Center will likely require place-specific subarea plans (new or updated) to achieve the long term intended outcomes. Areas like the Heights and Evergreen and Grand have recently completed subarea plans that largely align with new Comprehensive Plan goals and policies. Other existing plans – including those for Fruit Valley, Downtown, Central Fourth Plain, the 112th Corridor and Section 30- will require updates. Several other areas - including Upper Main Street, Mill Plain east of the Heights, the St. Johns/St. James couplet, Vancouver Mall, East Fourth Plain, and the 136th /137th, 164th and 192nd corridors – do not have existing subarea plans and will likely need them in the future. Subarea Plans address location-specific issues and opportunities at a greater level of detail than a citywide Comprehensive Plan can do.

While the growth concept describes how places function and relate to one another at a citywide scale and Comprehensive Plan designations group these into broad categories, zoning districts provide the specific rules and development standards that govern land use on individual sites. These rules—such as allowed building types, uses, and intensity of development - ensure the growth model is implemented consistently across the city.

Comprehensive Plan land use designations provide the broad framework for distributing uses and scales of development around the City. The updated Comprehensive Plan groups land into four broad designations: Residential Neighborhood, Urban Mixed Use, Employment and Industry, and Green Space.

Each Comprehensive Plan designation is implemented through one or more zoning districts with specific standards outlined in the City's Land Use and Development Code, which is the primary regulatory tool used to implement the growth concept and ensure new development aligns with the plan's vision.



Land Capacity

The following table summarizes the total acreage, estimated housing unit capacity, and employment capacity associated with each zone district, demonstrating that the City has sufficient land capacity to meet its 20-year population, housing, and job growth allocations.

Zone District	Acres	Housing Units	Jobs
Mobile Home / Manufactured Home			
Low-Scale Neighborhood			
Medium-Scale Neighborhood			
Mixed-Use Neighborhood			
Regional Activity Center			
Institutional / Campus			
Industrial / Employment			
Heavy Industrial			
Parks			
Natural Areas			
Citywide Totals			

TBD

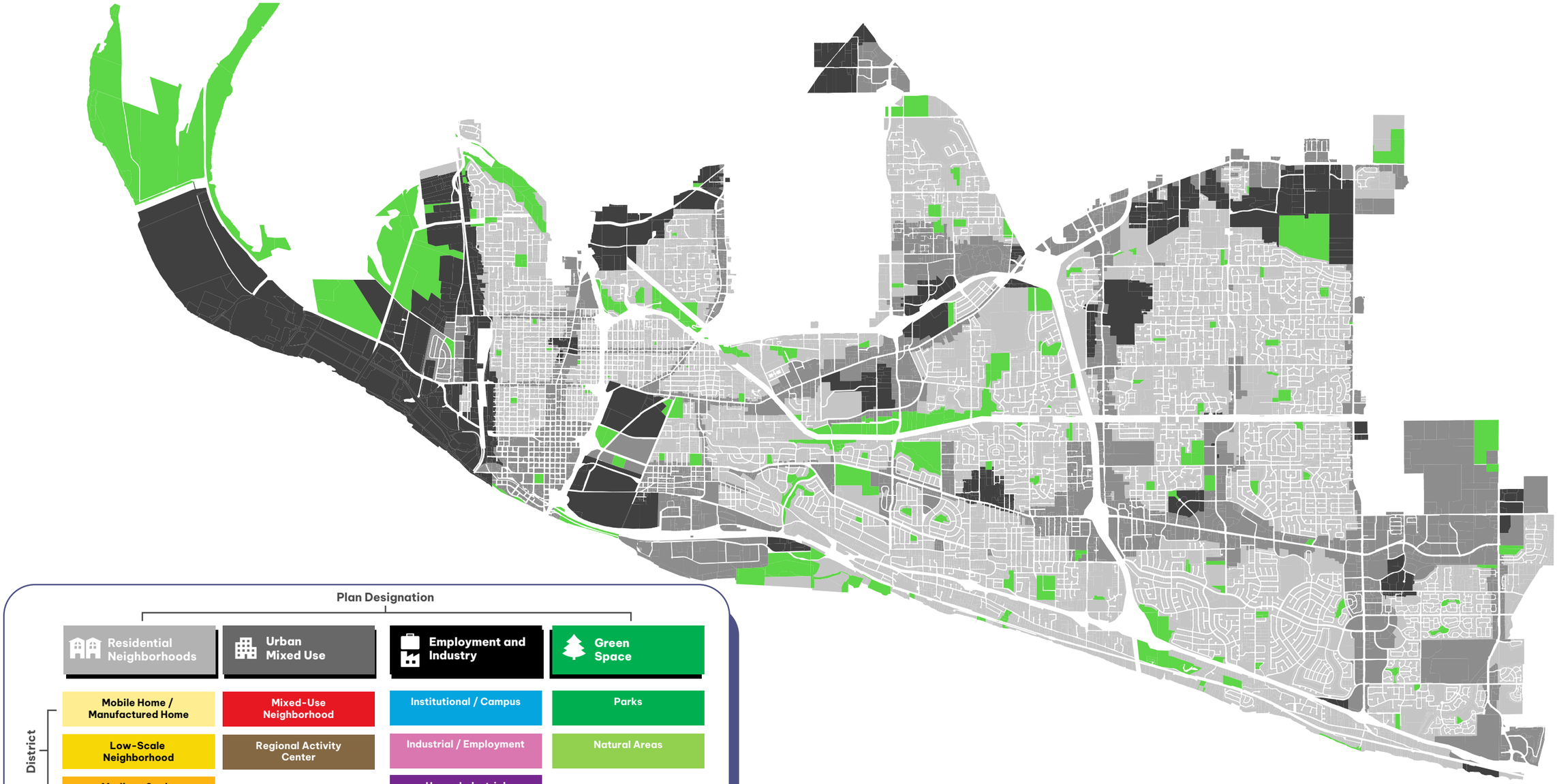
Land Uses Not Present

As a fully urbanized city, Vancouver does not contain designated agricultural, timber, or mineral resource lands of long-term commercial significance, nor rural land uses. Land use planning within the City is therefore focused on accommodating urban residential, mixed-use, employment, institutional, recreational, and conservation uses within the capacities stated above.

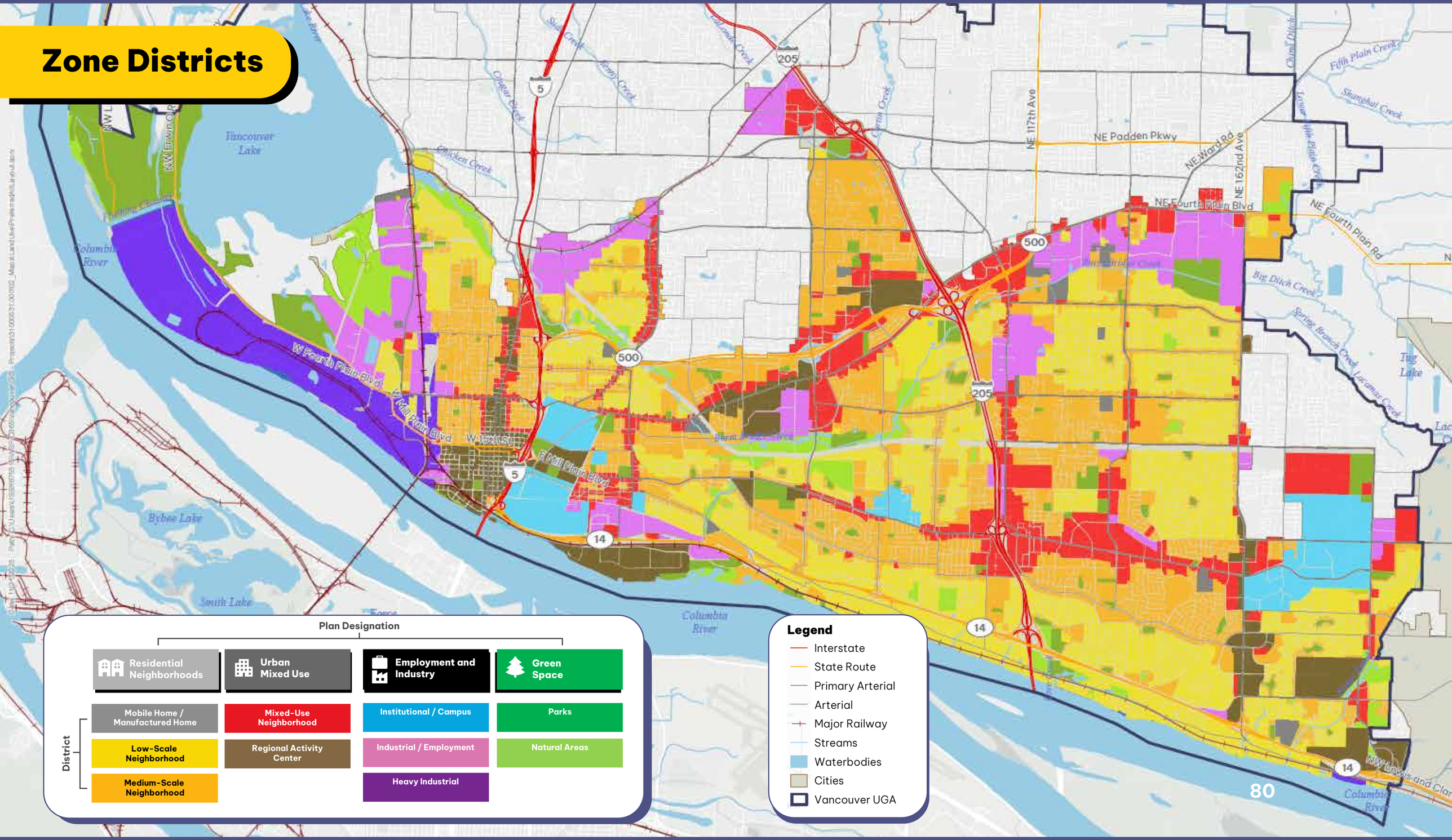
Groundwater Resources

Protection of groundwater resources used for public water supplies is addressed primarily through critical areas regulations and the Shoreline Master Program that limit incompatible activities and guide development practices in sensitive areas. The City coordinates land use decisions with adopted water system plans, watershed planning efforts, and applicable state and local regulations to protect aquifer recharge areas and maintain long-term water supply reliability while accommodating planned growth. More detail can be found within the Public Facilities Chapter of this plan.

Plan Designations



Zone Districts



Plan Designation

Residential Neighborhoods	Urban Mixed Use	Employment and Industry	Green Space
Mobile Home / Manufactured Home	Mixed-Use Neighborhood	Institutional / Campus	Parks
Low-Scale Neighborhood	Regional Activity Center	Industrial / Employment	Natural Areas
Medium-Scale Neighborhood		Heavy Industrial	

District

Legend

- Interstate
- State Route
- Primary Arterial
- Arterial
- Major Railway
- Streams
- Waterbodies
- Cities
- Vancouver UGA

Residential Neighborhoods

Residential neighborhoods make up a majority of the developed land within City limits. They form the everyday places where people live, connect with neighbors, and access schools, parks, and local services, providing a foundation for many neighborhoods in Vancouver.

1-2 Stories — Mobile Home / Manufactured Home

Applied to existing manufactured home parks to retain long-term affordability and prevent displacement of existing residents; no other uses allowed unless ongoing use as manufactured home parks demonstrably unfeasible.

1-4 Stories — Low-Scale Neighborhood

Allows up to 6 housing units per parcel and building heights of up to 3 stories (maximum of 45 feet tall) and a limited range of neighborhood commercial uses.

2-4 Stories — Medium-Scale Neighborhood

Allows a broad range of housing types and building heights of 2 to 5 stories (maximum of 75 feet tall) and more neighborhood commercial uses.

Urban Mixed Use

Urban mixed-use areas combine housing, commercial spaces, community oriented spaces, office, employment, and culture into compact, walkable districts. These areas concentrate activity in centers and corridors, supporting vibrant daily life and efficient use of land and infrastructure.

3-7 Stories — Mixed-Use Neighborhood

Allows a broad range of housing, commercial, and civic/institutional use types, with building heights of 3 to 8 stories (maximum of 110 feet tall).

3-12 Stories — Regional Activity Center

Allows for a range of commercial, employment, civic and entertainment uses and amenities; facilitates dense housing and mixed-use buildings and has no maximum building heights. Intended to provide activated public spaces that draw people from around the community.

Employment and Industry

Employment and industry areas conserve land for jobs that drive the regional economy and provide pathways to family-wage employment. They encompass campuses, industrial districts, and specialized sites where production, logistics, research, and office activity are clustered.

2-12 Stories — Institutional / Campus

Includes lands that support academic, civic and medical buildings; a broad range of commercial uses; dense housing types, large campus employment and phased master-planned developments.

1-12 Stories — Industrial / Employment

Includes lands with large-scale, single-tenant industrial, warehouse and flex space buildings, and smaller, multi-tenant industrial buildings. No maximum building heights and no new residential uses allowed.

1-4 Stories — Heavy Industrial

Includes lands that are currently zoned for heavy industrial uses, such as manufacturing and production. No new housing allowed.

Green Space

Green spaces serve ecological, recreational, and cultural functions for the community. These areas provide access to nature and recreation while protecting natural environments systems that sustain the community over time.

Parks

Lands currently zoned as public community and neighborhood parks. They provide neighborhoods with accessible, inclusive spaces that foster health, community identity, and cultural life.

Natural Areas

Includes lands currently zoned for greenways and natural areas. They strengthen biodiversity and natural systems, while connecting people to nature while protecting resources for future generations.

Goal: LU-1

Connected and Accessible Neighborhoods.

Vancouver neighborhoods are places where community members can walk, bike, or roll to a diverse mix of community and open spaces, services, retail, fresh food, healthcare and educational opportunities and amenities within 15 minutes or less

Key Actions

placeholder for top 5 actions identified through staff technical working groups

Connected and accessible neighborhoods are an overarching goal of the 2025-2045 Comprehensive Plan and associated growth concept. This concept envisions every neighborhood as a place where residents can walk, bike, or roll within 15 minutes—or roughly a quarter mile—to reach daily needs such as grocery stores, schools, childcare, health care, parks, community spaces, and local businesses. The benefits of this type of development pattern are numerous, including decreasing the time people spend in transit and the costs and climate impacts of transportation, reducing disparities in access to essential services, facilitating more efficient use of land, and providing options for healthier lifestyles and more opportunities for neighbors to gather and engage with each other. Currently, Vancouver has gaps in this accessibility: only 47,000 residents live within a quarter mile of frequent transit, and most transportation routes lack safe and comfortable walking and rolling facilities. Access to parks, healthy food options and childcare centers are unevenly distributed; neighborhoods such as Fruit Valley, Rose Village, and parts of Fourth Plain Village have less than 20% of the park acreage needed to meet City standards and higher proportions of households with limited access to grocery stores.

Addressing these limitations is essential for equity, climate resilience, and public health, as well as creating urban spaces that foster a sense of community and inclusion. The different types of centers and corridors included in the growth framework and guided by the new land use map and zoning code are intended to facilitate an evolution to more self-sustaining connected and accessible neighborhoods. In the past, a significant amount of the City's growth occurred in areas with low food

and park access and substandard transportation facilities – future development that efficiently utilizes land, increases mixing of uses and invests in infrastructure improvements helps to close these gaps.

Map 1. Connected and Accessible Neighborhoods Analysis.

The map above is an index for connected and accessible neighborhoods that illustrate the uneven distribution of the number and diversity of services around the City. Areas with high scores (in purple) which are near downtown and in established corridors—combine proximity to essential uses like grocery stores, urgent care, schools, parks, childcare, and transit with a diversity of supportive uses like cafes, community centers, and retail. Areas with low scores (gray color) must travel farther distances to access both essential and supportive services. Unequal access to services reinforces patterns of inequity, as these same communities often have lower incomes, higher housing cost burdens, and disproportionate climate risks such as extreme heat and poor air quality.

Together with the growth concept, new land use map and updated zoning code, the policies below will help ensure that future growth and investment builds more neighborhoods that are equitable, multimodal, and resilient. They focus on strengthening neighborhood business districts into vibrant hubs, encouraging infill and mixed-use development , and designing buildings and streetscapes at a human scale that invite walking, biking, and rolling. By linking resources and housing to existing and future transit and expanding access to essential services like food, healthcare and childcare, the City can begin to reverse inequities in the built environment and past patterns of disconnected

growth, making it possible for all residents to live in neighborhoods where daily needs are close at hand and safely reachable without a car.

Supporting Policies			Related Goals
40	**Access to Services and Amenities**	Expand access to essential services and amenities through regulation and public investment.	PFS-1 EI-1
41	**Sub-Area and Corridor Plans**	Develop and update subarea plans for key centers and corridors citywide, facilitating the development of integrated residential, commercial, employment and community uses.	LU-4 PFS-1
46	**Underdeveloped Lots and Brownfields**	Prioritize, facilitate, and incentivize development on infill and underutilized lots, and clean up of brownfield sites.	LU-4 PFS-1
59	**Pedestrian Oriented Design**	Ensure ground floor building facades, public spaces, and streets are designed at a human scale and provide comfort, accessibility and visual interest for pedestrians.	EO-4
60	**Equitable Transit Oriented Development**	Tailor regulations, incentives and investments to facilitate development near current and future transit stations and make this development accessible to transit-reliant and historically excluded and underserved communities.	LU-2 TM-2
67	**Resources Near Transit**	Locate community resources near current and future transit routes to ensure access for those most reliant on public transit.	TM-2
69	**Increase Access to Community Spaces**	Facilitate and provide access to public or private community gathering spaces, with a focus on populations vulnerable to social isolation.	LU-4 CE-1 EI-2

81	**Increase Food Access**	Incentivize and remove regulatory barriers to locating grocery stores and neighborhood markets near housing and in underserved areas.	PR-3, LU-1
84	**Income Based Housing in Connected and Accessible Neighborhoods**	Facilitate development of income-based housing, particularly in areas near transit and services.	H-2, EI-1

Goal: LU-2 Preserve and Invest in Employment Land

Vancouver preserves and invests in employment land to sustain a strong economic base, provide access to middle- and high-wage jobs, and support community stability and long-term opportunity.

Key Actions

placeholder for top 5 actions identified through staff technical working groups

Preserving and investing in employment land is critical to Vancouver's long-term economic health, community stability, and ability to provide access to quality jobs. Industrial areas and designated Employment Centers support businesses that generate middle- and high-wage employment, contribute to the City's tax base, and provide opportunities across a range of industries and skill levels. Maintaining sufficient and well-located employment land ensures that Vancouver can continue to accommodate job growth while supporting a balanced and resilient urban structure.

As the city grows, employment land faces increasing pressure from competing development demands. Without clear policies to preserve these areas, industrial and job-producing lands can be incrementally lost to incompatible or higher-value uses, reducing the City's long-term capacity to support employment. Protecting employment land safeguards space for businesses that require specialized infrastructure, freight access, or larger sites and helps ensure these uses can remain and reinvest in Vancouver over time.

Supporting Policies			Related Goals
32	**Conserve Lands Providing Employment**	Conserve and invest in industrial lands and other areas that provide employment for middle & high wage jobs.	LU-2, EO-2
144	**Employment Centers**	Direct new employment growth into Employment Centers with close proximity to housing, commercial activities, public services, employment and amenities.	EO-2

Goal: LU-3

Reduced Carbon in the Built Environment

We have successfully decreased local carbon emissions associated with Vancouver's built environment through investments in energy-efficient buildings, compact urban design, access to frequent transit, and infrastructure that supports active modes of travel.

Key Actions

placeholder for top 5 actions identified through staff technical working groups

The built environment is one of the most significant contributors to community-wide greenhouse gas emissions, accounting for both the direct energy used to heat, cool, and power buildings and the indirect emissions from how land use patterns shape transportation choices. On-road transportation (37%) and buildings and energy use (37%) together account for nearly three-quarters of community-wide emissions in 2023. While total community emissions have fallen 27% since 2007, primarily due to a cleaner electricity grid and temporary shifts in travel behavior during the pandemic, natural gas use in buildings has risen and transportation remains the largest single source of local emissions. This underscores the central role that land use plays in determining Vancouver's climate future. Dispersed, auto-dependent growth patterns lock in high vehicle miles traveled, energy-intensive buildings, higher infrastructure demands, and increased heat island effects. Conversely, compact development supported by frequent transit, safe walking and rolling networks, and energy-efficient buildings provides one of the most effective strategies to reduce emissions while creating healthier and more livable neighborhoods. Vancouver's new growth concept and land use map respond to these dynamics by aligning growth management with the City's Climate Action Framework, ensuring that how and where the community grows actively advances larger climate goals.

Reducing emissions in the built environment requires both retrofitting existing systems and reimagining new development. Energy-efficient building design, adaptive reuse of older structures, and the use of low-carbon and locally sourced materials help limit emissions from construction and operations. At the same time, policies supporting low-carbon fuels and electric vehicle adoption transition the city's transportation system toward cleaner options. Just as importantly, expanding safe, connected networks for walking, biking, rolling, and transit provides residents with practical, low-carbon alternatives to driving, reducing vehicle miles traveled while improving health and mobility. The Climate Vulnerability Assessment underscores that the same neighborhoods most burdened by heat and air quality impacts are often those with the fewest mobility options, making it critical that these strategies prioritize equity.

The policies under this goal work together to create a comprehensive pathway for reducing carbon emissions tied to land use. Investments in building energy efficiency, adaptive reuse, and low-carbon construction materials lower emissions from the building sector. Support for alternative fuels and electric vehicles, paired with active transportation and multimodal connectivity, reduces transportation emissions. Compact development and connected streets reduce infrastructure demands and enable sustainable travel. Collectively, these approaches position Vancouver to reduce its carbon footprint while creating healthier, more livable neighborhoods. This shift will help the city meet its climate targets, protect public health, and ensure that future growth supports both environmental sustainability and community well-being.

Supporting Policies			Related Goals
44	**Adaptive Reuse**	Support efforts to retrofit or repurpose underutilized buildings, structures and infrastructure for the development of new housing and commercial spaces.	LU-2, CL-3
45	**Shared Parking**	**Facilitate and expand allowances for shared utilization of parking facilities.**	**LU-3, LU-4**
47	**Maximize the utilization of existing on street parking**	Implement strategic pricing mechanisms to regulate the availability of on-street parking in mixed use and regional activity centers.	TM-2, LU-4
57	**Low Carbon Transportation Alternatives.**	Adopt new technologies and invest in supportive infrastructure to increase the adoption of electric, hybrid, and alternative fuel vehicles to reduce community emissions.	CL-3

64	**Multimodal Access Through Street Connectivity**	Adopt connectivity standards to improve pedestrian and small mobility safety and accessibility. Apply standards to development, capital, maintenance, and planning projects including maximum block length, unconnected streets, cul-de-sac connections, linkages between land uses, and multiple access points.	TM-1, TM-2, TM-4
75	**Climate Resilient Spaces**	Incorporate elements of climate resiliency into new privately and publicly developed public spaces.	CL-1, CE-1, PR-1, PFS-3, LU-3
119	**Acquire Land for Public Parks**	Acquire and reserve land for the development of parks for public use and recreation in areas experiencing growth, prioritizing underserved neighborhoods and areas currently not meeting parks service standards.	LU-3, PR-2

Goal: LU-4 Efficient Use of Land.

Finite land and material resources will be used efficiently and practically for new development, primarily within previously developed areas with existing infrastructure, minimizing environmental impact, contributing to a compact urban form and improving efficiency of service provisions.

Key Actions

placeholder for top 5 actions identified through staff technical working groups

Vancouver's land supply is finite, and how it is used will shape the city's livability, affordability, and sustainability for decades to come. Efficient land use means concentrating growth in areas already served by infrastructure and utilities, reducing the need for costly system expansions while minimizing environmental impacts. By focusing on infill, redevelopment, and compact urban form, the city can support affordable housing, expand access to economic opportunities, reduce greenhouse gas emissions, and protect open space and sensitive lands outside of the Vancouver Urban Growth Boundary (VUGA). In a fast-growing city where population is projected to increase by nearly 81,000 residents by 2045, directing growth in and up is critical to meeting the City's climate, equity and housing priorities.

Maximizing density in appropriate areas makes development more feasible by leveraging existing infrastructure and spreading the cost of new or upgraded infrastructure across more housing units and commercial and industrial space Compact form also enhances transit viability by concentrating demand along corridors and around stations, creating the ridership base needed for frequent, reliable service. Site design and parking management are equally important: shared parking, on-street parking strategies, and right-sized parking requirements reduce the need to dedicate large swaths of land to vehicle storage. This lowers development costs and reduces heat islands, and also opens up space for creative land uses—plazas, pocket parks, cultural spaces—that enhance the uniqueness and character of Vancouver's neighborhoods.

The policies in this plan mobilize these ideas by encouraging integrated employment hubs close to housing and services, facilitating infill and redevelopment, and advancing strategies for shared and managed parking. Regional coordination ensures that growth is managed consistently across Clark County, with annexation and land supply decisions supporting efficient service delivery. The plan also calls for regular reassessment to ensure land use aligns with the City's ability to provide necessary facilities and services Taken together, these approaches recognize that efficiency is not about uniformity, but about making the most of Vancouver's limited land base to foster innovation, identity, and sustainability in every neighborhood.

Supporting Policies			Related Goals
45	**Shared Parking**	Facilitate and expand allowances for shared utilization of parking facilities.	None
46	**Underdeveloped Lots and Brownfields**	Prioritize, facilitate, and incentivize development on infill and underutilized lots and clean up of brownfield sites.	LU-1, PFS-1
47	**Maximize the utilization of existing on street parking**	Implement strategic pricing mechanisms to regulate the availability of on-street parking in mixed use and regional activity centers.	TM-2
89	**Regional Planning**	Coordinate closely with Clark County, other cities, and other government entities such as C-TRAN, the Regional Transportation Council (RTC), and school districts to sustainably manage urban growth areas, efficiently deliver urban services, expand regional transit and multimodal connectivity, and coordinate on shared goals and responsibilities, in accordance with adopted countywide planning policies.	CL-3, TM-2, TM-1
105	**Facilitate Annexation**	Work with Clark County and residents in the Urban Growth Area to facilitate orderly, fiscally sustainable annexations, ensuring urban standard service levels with logical boundary considerations.	None

108	**Periodically Reassess Land Use**	Assure consistency of overall land use and capital facilities plans by reevaluating Vancouver's land use plan if funding is inadequate to provide necessary public facilities and services to implement the plan.	PFS-1
138	**Growth Model**	Use the Growth Model and Comprehensive Plan Land Use Designations to guide how and where growth and development occurs in the City.	LU-1
153	**Airfield Compatibility and Airspace Protection**	Ensure land uses, development patterns, and building heights in areas surrounding Pearson Airfield and PDX flight path are compatible with aviation operations and do not interfere with active airspace.	None

Housing

4

OUR VANCOUVER

Introduction

Adequate, safe, and affordable housing for all residents is essential to the health of a community. This chapter describes Vancouver's existing housing conditions and the direction the City will take to meet community housing needs from 2025 to 2045. The chapter includes goals and policies to address long-standing housing underproduction, and to better accommodate the diverse housing needs of the whole community across the income spectrum. Like other communities across the state, Vancouver is facing serious housing challenges, including an existing deficit of housing to meet the needs of current residents, rising homelessness, limited attainability and affordability, and prices that continue to push homeownership out of reach for many families. Addressing these challenges will require improved access to a broad range of housing types, the development of innovative housing products, and greater allowances for emergency, transitional and permanently supportive housing, all while supporting equitable outcomes and minimizing displacement. This plan aims to close the gap in housing needs by addressing Vancouver's unique community and market conditions, and builds on the City of Vancouver's existing Housing Action Plan (see Appendix TBD).

Vision: Housing

Vancouver is a community where people have many choices about where they will live, all within thriving, active, and affordable neighborhoods that they are proud to live in. We envision a future where housing is affordable and accessible to everyone and reflects the diversity of housing needs in the community. We commit to increasing opportunities for homeownership and wealth creation and prioritizing the needs of historically excluded communities. Our strategy aims to maximize the number and range of housing options available, embrace non-traditional design, construction and ownership methods, add middle, culturally specific and multigenerational housing, and increase housing options near essential services like education, healthcare, grocery stores, childcare and recreation opportunities.

In order to develop housing goals and policies, we first need to understand the housing market in 2025. The Housing Needs Assessment (Appendix TBD), summarized below, identifies the range of housing needs by analyzing the best available data describing Vancouver's housing stock, workforce, household demographics, housing market dynamics, and expected housing demand. The analysis answers questions about the current availability of different housing types, who lives and works in the Vancouver area, and what range of housing is needed to meet current and future housing needs. Vancouver, like other communities in the region, has changed over the years and housing needs have not been successfully met. The affordability of housing has changed, and access to housing has never been equal, especially for families with lower incomes and communities of color. The Housing Needs Assessment was prepared in 2023 using the best available data at that time (primarily 2022 data). Where possible, demographic data and statistics in this chapter were updated to 2023 or 2024, to include the most recent available data in an effort to highlight consistent trends. The year associated with various data points is noted throughout the chapter.

Community Feedback

- Center equity and historically excluded communities in housing policy
- Provide a diverse mix of housing types that meet different needs, incomes, cultures, and sages of life of community members.
- Increase housing supply and densify strategically to mitigate impacts
- Make housing and homeownership affordable and attainable.
- Prevent and address houselessness by increasing housing and supportive services.
- Support aging in place and housing for people with disabilities
- Locate housing near essential services, transportation options, employment and educational opportunities, and green space.
- Prevent displacement and protect vulnerable residents, including seniors, renters, and households with low income.

Community Demographic and Household Trends

Population Growth. Vancouver and the region have grown substantially over the last two decades and are projected to continue to grow over the 20-year planning period (2025-2045). From 2000 to 2023, Vancouver's population, including annexation areas, grew by just over 56,000 residents, or 39%, which is slightly higher than Washington state (35%) but lower than Clark County as a whole (53%)[5]. The pandemic may have shifted or accelerated migration patterns and housing preferences permanently, and Portland outmigration has contributed to Clark County's rapid growth.

[5] Washington State Office of Financial Management analysis of U.S. Census data, 2021: https://ofm.wa.gov/washington-data-research/population-demographics/population-estimates/population-density

Demographics. Vancouver's population is getting older. The share of Vancouver residents aged 65 years and older increased from 13% in 2011 to 16% in 2023, a higher share than in Clark County overall. The share of residents under 20 years remained about the same, at 24% of the population[6].

Vancouver became more racially and ethnically diverse over the last decade. From 2011 to 2023, the Hispanic/Latino population increased by 8% (from 9% to 17%), while the Asian and Black populations remained about the same (5% and 3%, respectively)[7].

Income. Vancouver households tend to have lower incomes compared to Clark County. In 2023, the city's median household income was around $80,000 per year, roughly $17,000 less than the countywide median of $97,000. In addition, a larger share of Vancouver households earn less than $75,000 and a smaller share earn more than $100,000 annually than the county overall.[8] As of 2023, the Area Median Income (AMI) determined by the US Department of Housing and Urban Development (HUD) for the Portland-Vancouver-Hillsboro Metropolitan Statistical Area (MSA) was $114,400 for a family of four.

Key Demographics and Trends

39% population growth from 2000 to 2023

8% Hispanic/Latino population increase from 2011 to 2023

16% residents age 65+ (2023)

$80k median household income (2023)

7% decrease in households with children between 2011 and 2021

1 in 3 Vancouver residents work in Vancouver (2022)

Household Size. Vancouver's average household size decreased slightly from 2.4 persons in 2011 to 2.3 in 2023 and the overall share of households with children declined. The share of 1- and 2-person households increased, while 3- and 4-person households decreased.[9] In addition, the percent of households with children in Vancouver dropped by 7% between 2011 and 2021.[10]

Employment Location. About a third of people (30,655) employed in Vancouver live in Vancouver, which is higher than all nearby jurisdictions, except Portland (2022). The second most common workplace destination for Vancouver residents is Portland (2022).[11] As of 2021, the City of Vancouver had a higher jobs-to-housing ratio than the County's goal of 1:1, with 1.18 jobs for every household compared to 0.82 jobs for every household in Clark County[12] (see Appendix TBD, Economic Conditions

[6] ACS 1-Year Data Tables, Table S0101, 2023
[7] ACS 1-Year Data Tables, Table B03002, 2011, 2023
[8] ACS 1-Year Data Tables, Table S1901, 2023
[9] ACS 1-Year Data Tables, Table S2501, 2011, 2023
[10] ACS 1-Year Data Tables, Table S1101, 2011, 2021
[11] Office of Financial Management, LODES, 2010-2022
[12] Office of Financial Management, LODES, 2011-2021

and Opportunities Analysis). This trend is reflective of Vancouver's role as an employment hub but could also indicate a shortage of housing options available for people who work in Vancouver.

Existing Housing Conditions, Types, Tenure, Affordability, and Market Trends

The cost of housing in Vancouver rapidly increased over the last decade. Median home sales prices nearly tripled and average rents increased over 90%, from $879 to $1,683, between 2012 and 2023[13]. During the same period, average income increased 76% when adjusted for inflation[14]. The widening gap between housing costs and incomes indicates declining attainability and affordability in Vancouver's ownership and rental market. Rents in Vancouver have now surpassed those in Portland[15].

Approximately half of Vancouver households rent their homes and half own their homes, which is a similar homeownership rate as other nearby cities, but lower than Clark County (67%) and the state (66%).[16]

Renters are three times more likely to be cost burdened (when a household spends 30% or more of its monthly income towards housing costs) compared to homeowners. In 2023, 53% of renters were cost burdened, and 26% were severely cost-burdened (households paying 50% or more of monthly income towards housing costs).[17] This highlights the need for more affordable rental units and increased homeownership opportunities, particularly for households with low and moderate incomes.

[13] Redfin, 2023. Data not adjusted for inflation.
[14] ACS 1-Year Data Tables, Table S1901, 2012, 2023
[15] CoStar
[16] ACS 1-Year Data Tables, Table B25003, 2023
[17] ACS 1-Year Data Tables, Table B25091, 2023

In 2023, Vancouver's dominant type of housing was single-family detached, which comprises nearly half (48%) of the total number of housing units in the city. This is a slightly lower share of single-family detached than Clark County overall (65%). Vancouver's other housing stock as of 2021 consists of multifamily housing (buildings of five or more units), accounting for 35% of total units citywide, and attached housing "plexes" (2-4 units) accounting for 16% of citywide housing.[18] Vancouver's existing housing supply reflects market conditions and policy choices over the years. The2011 Comprehensive Plan zoned approximately 46% of citywide land for low-density single family residential housing with new small, attached types permitted only through additional review. The remaining 54% of citywide land accommodated all multi-family, commercial, office and industrial uses combined. Vancouver has a higher share of existing multi-unit housing than Clark County overall, with significant development occurring in recent years. Nearly 80% of new multifamily housing developments permitted from 2019-2021 had more than five units. This points to future opportunities to diversify the housing mix, especially expanding middle housing options like duplexes, triplexes, and townhomes.

Racial disparities exist in Vancouver's housing access. White households have significantly higher rates of homeownership than Hispanic and/or Black households, and are less cost-burdened by housing ownership or rental expenses.[19] See the Equity Lens section of this chapter for more information about racially disparate impacts.

Vancouver provides most of the existing affordable housing in Clark County, with 1,447 rent restricted affordable units sponsored by the City's Affordable Housing Fund (AHF) that are either existing or currently in progress for development as of 2025. Of these units, 32% are set aside for seniors and 9%

[18] The U.S. Census provides generalized survey-based information describing the main categories of housing units, including single-family detached, "plex housing" (which includes townhomes and row homes, and buildings up to four units), and multifamily (five or more units). ACS 1-Year Data Tables, Table B25024, 2023.

[19] SEVA, ACS 5-Year Estimates, 2017-2021

of the units are set aside specifically for populations with special needs or mental health issues. All housing units sponsored by the AHF must serve households below 50% AMI.

Housing Needs

Continued strong population growth is anticipated through the planning period. Clark County adopted a total population forecast of 718,154 persons countywide in 2045, which requires 103,696 new housing units. The City of Vancouver's allocated share to accommodate is **36,527 new housing units.** In order to accommodate new population growth and address the existing housing deficit and associated affordability crisis, the City of Vancouver is planning for **38,129 new housing units by 2045**. This means an estimated 1,733 housing units need to be built on average per year from 2023 to 2045 to meet the City's projected housing need.

Under state law, new housing is required to be affordable at different income levels. The 2045 housing unit targets shown in Table 1 City of Vancouver Future Housing Need by Income Categoryinclude units for Permanent Supportive Housing (PSH)[20] and extremely low (<30% AMI), low (30-80% AMI), moderate (80-100% AMI), middle (100-120% AMI) and high (>120% AMI) incomes. Additionally, the City needs to plan for an additional 1,374 emergency shelter beds[21]. The analysis indicates that about one-third of new housing units will need to be affordable to households at or below 50% of AMI. Historically, units affordable to households making 60% of median or below require significant public subsidy to make development and long-term affordability feasible. As of the date of this draft, the state has allocated no new resources to support the development of additional rent restricted units affordable at this level.

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[20] Permanent Supportive Housing (PSH) is "subsidized, leased housing with no limit on length of stay that prioritizes people who need comprehensive support services to retain tenancy and utilizes admissions practices designed to use lower barriers to entry than would be typical for other subsidized or unsubsidized rental housing, especially related to rental history, criminal history, and personal behaviors" Washington RCW 36.70A.030(31).

[21] Emergency Units are "temporary indoor accommodations for individuals or families who are homeless or at imminent risk of becoming homeless that is intended to address the basic health, food, clothing, and personal hygiene needs of individuals or families. Emergency housing may or may not require occupants to enter into a lease or an occupancy agreement." - Washington RCW 36.70A.030(14).

Table 1 City of Vancouver Future Housing Need by Income Category

	0 to ≤30% AMI (subsidized)	0 to ≤30 AMI (nonsubsidized)	>30 to ≤50%	>50 to ≤80%	>80 to ≤100%	>100 to ≤120%	>120% AMI
Units Needed	2,651	4,371	5,890	5,788	3,351	3,175	12,902

The goal of 1,733 units per year on average spreads out housing needs equally over the 20-year Comprehensive Plan time horizon and is intended to guide land use planning decisions and actions that accommodate the total number during this time period. However, the City's 10-year Housing Action Plan (Appendix TBD) front loads needed housing production and calls for 2,500 units per year to meet current housing needs rather than wait the full 20-years of the Comprehensive Plan time horizon. The Housing Action Plan calls on the City to enact policies to increase housing production as soon as possible to meet housing needs. The land use designation changes as part of the Comprehensive Plan update also support the shorter timeline identified in the Housing Action Plan, reflecting City Council direction to "pull every lever" to meet current and anticipated housing needs as soon as possible.

The land use map (Chapter 2, Land Use) simplifies citywide zoning districts to ten new zones, six of which allow residential uses as indicated in **Error! Reference source not found.** below. Per the updated zoning districts and the City's adopted land use map, there is capacity for an additional [TBD] housing units in Vancouver.

The land use map and new zoning districts increase capacity for new housing units citywide and allow for a greater diversity of housing types given market feasibility and redevelopment potential. In comparison to the current land use map, the new one designates more land for higher-intensity multifamily development types through the application of Medium Scale Neighborhood, Mixed-Use Neighborhood, and Regional Activity Center zoning districts. These denser zoning districts allow for a broader range of housing types with more and smaller units, and more potential for lower cost units. Zoning code standards are intended to be easier and simpler to understand, which may also reduce the costs and barriers to housing production.

New state laws require the City of Vancouver to allow for at least four dwelling units per lot on all lots in single family zones, and up to six dwelling units per lot if within a quarter mile of a major transit stop, or if two of the units are affordable. Lands designated Low Scale Neighborhood have the potential for a greater diversity of housing types, such as duplexes, quadplexes, sixplexes, and townhomes than current low density zoning districts.

Affordable and Senior Housing

The required zoning updates will allow for greater density, a broader array of housing types and sizes, and new housing units throughout the city. However, there are challenges to building housing that serves all households, especially those with lower incomes. In general, the higher capacity for new housing units allows for greater opportunities to construct different smaller housing typologies, which in turn have the potential to be more affordable for a broader range of household income levels. However, certain households will likely not be served by the private market without additional subsidies for housing. Development of regulated affordable housing can face a number of challenges and typically requires substantial public subsidy to make these projects financially feasible to build.

One of the major funding sources for affordable housing in Vancouver comes from the City's Affordable Housing Fund. This fund supports people experiencing very low-income in Vancouver by providing affordable housing and services.[22] Established in 2016, it awarded funds of almost $20M between 2017 and 2023 and supported production of 701 new rest-restricted affordable housing units. This levy was renewed by voters to provide $100 million in additional funding for affordable housing from 2024 through 2033.[23] Of the $100 million allocated for 2024-2033, $60 million goes towards housing production and preservation, $20 million for rent assistance and housing services, $10 million for temporary shelter, and $5 million each towards homeownership and implementation.

The Housing Needs Assessment includes a full list of income restricted, project-based affordable housing sponsored by the City's Affordable Housing Fund. As of 2025, there are 1,447 rent-restricted units designated for various populations in Vancouver (including both completed and in-progress projects and those supported by the Affordable Housing Fund as well as other public sources).

The availability of housing for seniors (65 years or older) is important to track and assess to ensure the city has sufficient housing for the growing senior population. From 2011 to 2023, Vancouver's senior population (aged 65 years or older) increased by three percentage points, from 13% to 16% of the total population, likely increasing the demand for senior housing facilities and units that allow for aging in place. Addressing housing needs for those age 65 years and above will require a range of housing opportunities. For example, while the 82-to-86-year cohort dominates the assisted living

[22] https://city-of-vancouver-wa-geo-hub-cityofvancouver.hub.arcgis.com/documents/CityOfVancouver::affordable-housing-fund-investment/explore
[23] https://www.cityofvancouver.us/economic-prosperity-and-housing/affordable-housing-fund/

and more intensive care sector, new or near-retirees may prefer aging in place or active, age-targeted communities.[24] Immigration status and ethnicity play a role in the likelihood of living in multigenerational households, with older Asian and Hispanic community members more likely to live in a multigenerational household than White or Black community members.[25] Households with adults 65 years or older have different income profiles from the general working age population that require then to make distinctive housing choices. For instance, seniors with low income may not have the financial resources to live in a nursing home and may instead choose to downsize to smaller, more affordable units. Others with nearby relatives may choose to live in multigenerational households. The aging of the Baby Boomer generation will very likely increase the demand for smaller "downsized" housing options and housing with assistance and age-in-place amenities.

Accessory Dwelling Units (ADUs)

Accessory Dwelling Units, or ADUs, are defined as one or more rooms with private bath and kitchen facilities comprising an independent, self-contained dwelling unit within or attached to a single-family dwelling or in a detached building on the same lot as the primary dwelling unit.[26] ADUs are primarily found in low and medium scale neighborhood zones and are permitted in all residential zoning districts in Vancouver that contain a single family home. State legislation referred to as H.B. 1337 requires cities like Vancouver to allow up to two ADUs on a residential lot, assuming compliance with development regulations.

ADUs provide homeowners the ability to establish separate living quarters within or adjacent to their home and increase the range of housing options and supply of accessible and affordable housing units in the community.[27] In 2024 Vancouver updated its current development code to comply with this legislation, and the new code will also incorporate compliant standards.

Connected and Accessible Neighborhoods

Connected and accessible neighborhoods are intended to support a mix of uses within a 15-minute walk, bike, or roll to provide access to essential services like grocery stores, childcare, education and

[24] Source: Urban Land Institute (2018). Emerging Trends in Real Estate, United States and Canada.
[25] Source: Herbert, Christopher and Hrabchak Molinsky (2015). Meeting the Housing Needs of an Aging Population. https://shelterforce.org/2015/05/30/meeting_the_housing_needs_of_an_aging_population/
[26] VMC 20.810.020
[27] VMC 20.810.010

healthcare as well as opportunities for shopping, entertainment, cultural amenities, and employment within proximity to housing.

The placement of higher density residential zones near commercial areas and transit routes increases the potential for a substantial amount of new housing in connected and accessible neighborhoods. As summarized in Table 2, [TBD, final numbers forthcoming]% of the new housing capacity is in areas with five or more existing services or amenities within walking distance. These services or amenities include full-service grocery stores, transit stops, parks and open spaces, trails, libraries, ambulatory healthcare services, schools, and other essential places such as higher education institutions. This proximity to services benefit resident wellbeing in terms of access to healthcare, food, and daily needs, as well as opportunities to interact with others. More details about connected and accessible neighborhoods are available in Appendix TBD, Community Atlas and in the Land Use Chapter.

Table 2 Estimated Capacity for New Housing Units in Connected and Accessible Neighborhoods

Metric	Housing Units
Projected Capacity for New Housing Units in Connected and Accessible Neighborhoods	[TBD, final numbers forthcoming]
Percent of Total Projected Capacity for New Housing Units	[TBD, final numbers forthcoming]%

Displacement Risk

As Vancouver continues to grow and housing demand rises, the city faces new challenges related to involuntary displacement of existing households. Housing underproduction, combined with a highly competitive regional market, exerts upward pressure on housing costs which poses significant challenges for communities, particularly vulnerable populations. "Displacement risk" describes when these pressures in the real estate market could force households to relocate due to rising costs for housing or increased feasibility and interest in redevelopment. The goals and policies in this comprehensive plan are designed to mitigate displacement in high-risk areas to reduce the unintended consequences of new development and growth and facilitate long-term equitable development across the City.

Those at the greatest risk of housing displacement include:

- **Households with low incomes and children in the home, particularly those who rent**, are at greatest risk of being forced to move due to rising rents, since they have limited ability to cover rent increases and may already be facing tradeoffs between paying rent and covering other basic needs for their household. Washington State and local regulations offer some protections for renters, including caps of annual rent increases and notice requirements for rent increases and evictions. Under Washington's recently passed statewide rent control laws, private property owners may increase rent up to 7% plus the Consumer Price Index, or 10%, whichever is less.[28] There are exceptions for the control of rent in buildings under public-private

[28] HB1217 Landlord Resource Center https://www.commerce.wa.gov/housing-policy/hb1217-landlord-resource-center/

agreements to provide regulated affordable housing.[29] Taken together, these protections may delay but do not ultimately prevent displacement of households with low incomes.

- **Adults without college degrees** have less ability to increase their income to cover higher housing costs and may have to work multiple low-wage jobs to make ends meet. Educational attainment (as well as income) is not protected under federal housing legislation, leaving these adults more vulnerable to discrimination.
- **Black, Indigenous, and People of Color (BIPOC)**—particularly people who are Black, Indigenous, and/or Latinx—tend to face greater housing discrimination and may have a harder time finding other housing if they are forced to move. Race, color, and national origin are all protected by the Fair Housing Act, but the long history of racist housing policies in the United States continues to impact household wealth and housing options for many BIPOC people and families. The legacy of these practices contributes to ongoing disparities in homeownership and housing cost burdens nationwide. Past policies that excluded people of color from homeownership have played a role in systemically preventing the accumulation of generational wealth. In contrast, many White families have benefited from long-term property appreciation. This is an example of how historic discrimination and exclusion has contributed to persistent disparities by race and ethnicity related to housing generally and displacement risk specifically.
- Additionally, **households with limited English proficiency, people with disabilities, and adults age 65+** face unique challenges to finding and securing housing due to language barriers and accessible housing options.

The City of Vancouver created a Displacement Risk Assessment Map to better understand displacement pressures citywide and further the City's equity goals by pairing investments with anti-displacement strategies in areas shown to have greater displacement risk.

Table 3 outlines how socioeconomic vulnerability, and location specific demographic change and housing market dynamics are analyzed to understand displacement risk. The risk assessment uses the demographic factors described above to measure socioeconomic vulnerability[30] to displacement. Whether or not demographic change is underway Table 3indicates the extent to which displacement is already occurring. Housing market data, specifically trends in home sales prices, indicates where market pressures are or are likely to increase prices. The year 2007 was used as the base year for housing market data in order to capture prices when the market was at its peak before the 2008 crash; changes in home values looked at changes between 2010 and 2020. The City's Displacement Risk Assessment Map is updated every five years using new data.

[29] RCW 36.01.130 pre-empts jurisdictions from adopting local rent control ordinances, but other state regulations provide some protections around notice to vacate.
[30] The City's study defined vulnerable tracts by analyzing the distribution of quintile scores, and then set the threshold at approximately the 75th percentile.

The methodology included seven different categories of displacement risk, based on the combination of socioeconomic vulnerability factors and real estate market trends by census tract, grouped into early-stage, mid-stage, or late-stage gentrification as defined in Table 3Table 3.[31]

Table 3 Description of Displacement Risk Typologies

	Typology	Vulnerable Population	Demographic Change	Housing Market
Early-Stage Gentrification	Susceptible	Higher share	No	Low to moderate, adjacent to high or increasing values
	Early: Type 1	Higher share	No	Low to moderate, high appreciation since base year
	Early: Type 2	Higher share	Yes	Low to moderate, adjacent to high or increasing values
Mid-Stage Gentrification	Dynamic	Higher share	Yes	Low to moderate, high appreciation since base year
Late-Stage Gentrification	Late: Type 1	Higher share	Yes	High
	Late: Type 2	Lost previous high share	No	Low to moderate, appreciation since base year
	Continued Loss	Lost previous high share	No	High

Per the Displacement Risk assessment, of the 64 census tracts within or intersecting the City's boundaries, 14 census tracts in Vancouver face early-stage gentrification. Four tracts face mid-stage gentrification, and one is in late-stage gentrification. Late-stage gentrification means a neighborhood has lost an increasing share of vulnerable populations over the study period and is facing rising housing costs. See Appendix TBD, Housing Needs Assessment, for additional details and methodology.

The Image Neighborhood is the only area that has reached late-stage gentrification based on the City's methodology. The Fourth Plain Village and North Image Neighborhoods fall into the Dynamic category, which refers to areas where new anti-displacement actions can still help to prevent loss of vulnerable populations before the areas reach more advanced displacement types. Neighborhoods facing early-stage gentrification are concentrated in Central Vancouver, including along Fourth Plain Boulevard, I-205, and WA SR-500. In these areas, preserving low-cost housing and preventing

[31] City of Portland Bureau of Planning and Sustainability, "Gentrification and Displacement Neighborhood Typology Assessment," October 2018.

displacement of vulnerable populations can help keep neighborhoods from advancing into mid- or late-stage gentrification.

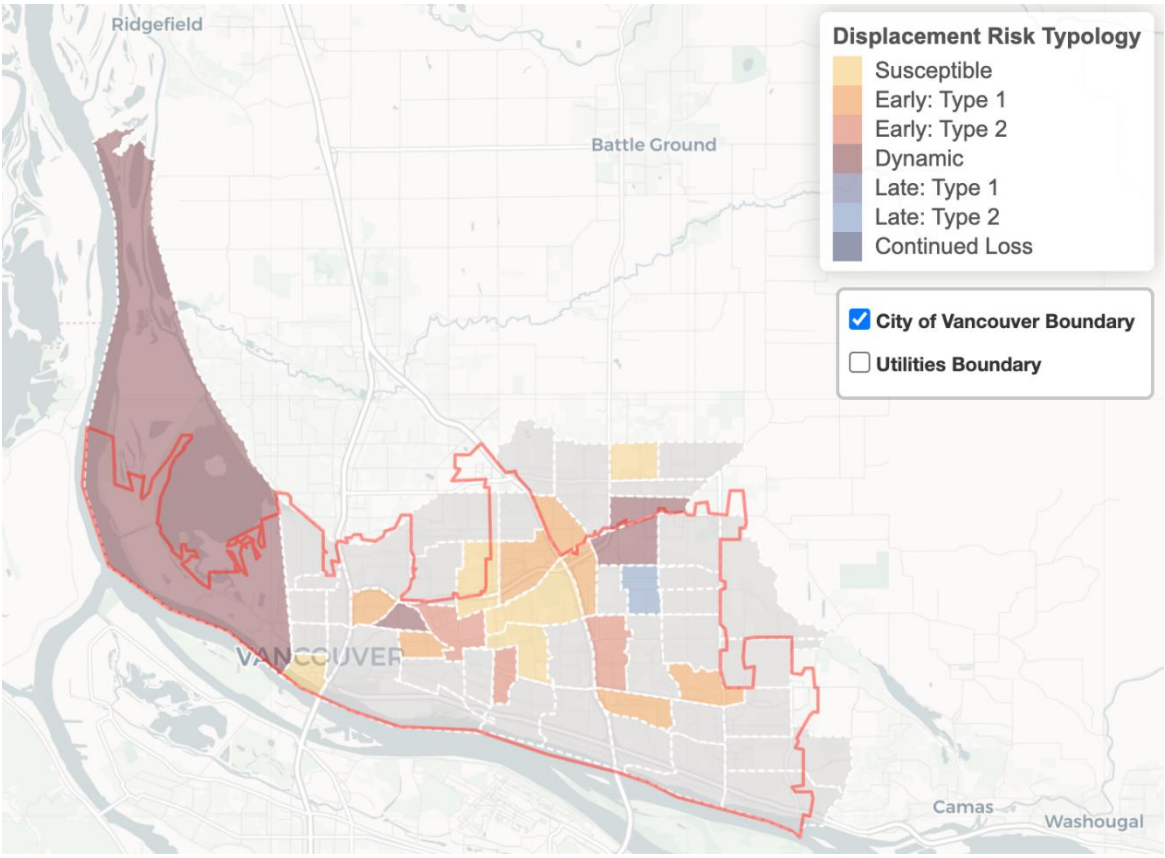


Figure 1 Displacement Risk Map, Vancouver, 2010-2020

The most effective anti-displacement strategies vary by location-specific characteristics and displacement stage. The City's 2020 Reside Vancouver Plan (Appendix TBD) identifies recommended strategies for preventing displacement, which include citywide strategies as well as geographically specific strategies for the Fourth Plain Corridor. Goals and policies throughout this comprehensive plan aim to prevent displacement by preserving existing low-cost housing, creating new affordable housing options, increasing economic opportunities for residents, and supporting homeownership to stabilize households. The City's Equitable Development Strategy (see Appendix TBD) identifies a range of strategies to ensure equitable development and reduce displacement pressures, and incorporates existing work from the Heights Equitable Development Strategy, Citywide Economic Development Strategy, and Housing Action Plan as well as new best practice research and community-identified priorities.

Table 4 Estimated Capacity for New Housing Units in High Displacement Risk Areas

Metric	Housing Units
Projected Capacity for New Housing Units in High Displacement Risk Areas	[TBD, final numbers forthcoming]
Percent of Total Projected Capacity for New Housing Units	[TBD, final numbers forthcoming]%

The Washington State Department of Commerce published a displacement risk map that similarly shows areas on the west, north-central and east sides of the city as being higher risk for displacement based on market trends, demographic change and social vulnerability. **Error! Reference source not found.Error! Reference source not found.** summarizes the estimated number of new housing units that are anticipated in areas defined as high risk in the Washington State Displacement Risk Map.

Equity Lens: Racially Disparate Impacts

The Washington State House Bill 1220 included a component to ensure that new and existing housing policy addresses and mitigates racially disparate impacts, displacement, and exclusion. See Appendix TBD, Racially Disparate Impacts Memo, for additional data and information.

- **Displacement**: The process by which a household is forced to move from its community because of conditions beyond their control (can include physical, economic and/or cultural displacement).
- **Exclusion in housing**: The act or effect of shutting or keeping certain populations out of housing within a specific area, in a manner that may be intentional or unintentional, but which leads to non-inclusive impacts.
- **Racially disparate impact (RDI)**: When policies, practices, rules or other systems result in a disproportionate impact on one or more racial groups.

Historically, policies such as redlining, restrictions in Veterans Administration homeownership loans, and housing covenants resulted in segregated housing and limited the ability of people of color to gain generational wealth. Today in Vancouver, people of color are more likely to live in multifamily housing, rent instead of own their home, be housing cost-burdened (spending more than 30% of income on housing), rely on public transit or carpooling for commuting, and live in areas of the city with less tree canopy. This data demonstrates racially disparate impacts exist in the community.

The comprehensive plan update includes goals and policies to directly address increasing housing production, providing diverse and affordable housing types, preventing displacement of existing residents, and increasing access to homeownership specifically for those who have previously been excluded from buying a home.

Goal: H-1 Housing Production

In 2045, the city will have added a minimum of 38,000 net new housing units to its current stock, eliminating the current housing deficit and providing enough housing to serve Vancouver's diverse and growing community.

Vancouver's housing supply in 2045 will serve the entire community, regardless of income, age, disability status, educational attainment or household composition. It will do this by providing a range of diverse housing options affordable to a broad spectrum of incomes. The City will need to take a broad range of actions, pull multiple levers and find new and innovative ways to support housing production. This includes changes to Vancouver's land use map and zoning code occurring as part of this Comprehensive Plan periodic review cycle, which seek to simplify the development code, provide flexibility, and reduce the time, process and cost associated with new development. These updates will provide greater clarity to applicants and the community, minimizing unnecessary delays in the review of residential permit applications. In addition to changes to regulations and process, meeting housing production goals will require additional implementation steps that could include fee reductions or exemptions, advocating for new resources at the state and federal levels, updating existing or developing new incentive programs, and supporting innovative design and construction methods.

Key Actions (TBD)

- ✓ Actions 1
- ✓ Action 2
- ✓ Action 3

In order to support the construction of housing affordable to low and extremely low-income households, the City will continue to partner with local, state, and national agencies to secure supportive funding for the construction of rent-restricted, permanently affordable housing, as these levels of affordability are not supported by the private market without substantial subsidies and or incentives.

Supporting Policies			Related Goals
38	**Streamline the Development Process**	Simplify the development review process where feasible and as needed to reduce permitting timelines and improve housing costs.	None
83	**New Funding Methods for Affordable Housing**	Explore and develop additional funding methods and resources to support affordable housing and community ownership opportunities	H-6
98	**Housing Innovation**	Promote and remove regulatory barriers to new financing methods, homeownership models and design and construction techniques.	CF-4

Goal: H-2 Diverse and Accessible Housing

A wide range of new housing types are provided to fit a variety of household sizes, cultures, incomes, and abilities, and where community members can access housing that meets their needs at all stages of life.

A wide range of housing types and sizes are needed to ensure all community members can find housing that meets their needs throughout their lives. This goal focuses on expanding housing choice by encouraging more diverse housing types, scales, and densities that respond to changing household sizes, ages, incomes, and abilities, while improving access to services and amenities.

Key Actions (TBD)

✓ Action 1

✓ Action 2

✓ Action 3

The City's policy approach emphasizes reducing regulatory barriers and modernizing zoning and development standards to better align with housing needs. Historically, Vancouver's housing stock has been constrained by limited housing types and density patterns that artificially constrain housing production and do not reflect today's demographics. To address this, the City will support middle housing forms—such as two-to-six unit plexes, townhomes, cottage clusters, courtyard apartments, and stacked flats and accessory dwelling units—in all low- and medium-scale neighborhoods.

Accessibility is a central component of this goal. As the population ages and the need for inclusive housing grows, policies will encourage accessible design, visitability, and housing that supports aging in place and multigenerational living. The City will also work with community-based partners to facilitate culturally specific and identity-based housing that reflects the lived experiences and needs of Vancouver's diverse communities.

Together, these policies support a housing system that is more adaptable, inclusive, and responsive, and provides more options, so that people can remain in their neighborhoods as their needs change. By allowed a greater range and size of housing in neighborhoods across the City, including those with existing services, new housing provides more people with access to connected, accessible neighborhoods.

Supporting Policies			Related Goals
51	**Universal Design**	Incentivize universal design principles in private development. Support accessibility retrofits for existing homes and prioritize affordable housing options tailored to multi-generational living, aging in place, and a wide range of abilities.	EI-2 PR-1
	Multigenerational Households	Incentivize development of housing types suitable for multigenerational living.	EI-3
84	**Income Based Housing**	Facilitate development of income-based housing, particularly in areas near transit and services.	EI-1
92	**Analyze and Mitigate Displacement Risk**	Analyze and mitigate for displacement pressures and risks prior to making large-scale public investments.	E-1 H-4 PFS-1
99	**Allow Middle Housing**	Increase housing diversity by allowing a range of missing middle housing types (duplexes, triplexes, townhomes, cottage clusters, and courtyard apartments) in low- and medium-intensity residential areas to expand affordability and accessibility.	None
100	**Culturally Specific and Identity-Based Housing**	Work with partners to facilitate and fund housing that reflects the cultures, identities and needs of Vancouver's unique population groups.	CF-2 EI-1

Goal: H-3 Reduce Homelessness

The City and its partners work collectively to provide adequate transitional, permanently supportive, and affordable housing in the community, so that all residents have access to safe and stable housing.

Key Actions (TBD)

✓ Action 1

✓ Action 2

✓ Action 3

Ensuring that all residents have access to safe and stable housing requires coordinated action to address homelessness across the housing continuum. This goal focuses on expanding and sustaining emergency shelters and transitional, permanently supportive, and affordable housing so that individuals and families experiencing housing instability can move toward long-term stability.

The City's policy approach centers on partnership, preservation, and targeted investment. Vancouver will continue working with local, state, and national partners to secure funding and resources for emergency shelter beds, transitional housing, permanently supportive and rent-restricted permanently affordable housing, recognizing that these housing types are rarely delivered by the private market. Policies emphasize integrating housing with services to support individuals with disabilities, behavioral and mental health needs, and other barriers to housing stability.

In addition to expanding housing options, the City will prioritize preserving existing affordable and supportive housing, including naturally occurring affordable units, to prevent further loss of low-cost housing. Protecting existing stock is a critical component of reducing homelessness and preventing households from falling into housing instability.

By aligning housing policy with service delivery and regional efforts, this goal advances a coordinated response to homelessness that prioritizes stability, dignity, and improved long-term outcomes.

Supporting Policies		Related Goals
85 **Preserve Existing Affordable Housing**	Preserve the existing stock of affordable housing and discourage conversion of income-based housing to more expensive market rate housing when affordability restrictions end.	**H-4** Prevent Displacement
93 **Permanent Supportive Housing**	Expand the availability of permanently supportive housing and emergency shelter beds with integrated services for people with disabilities, houseless individuals, and at-risk populations.	None

Goal: H-4 Prevent Displacement

The City and its partners work collectively to prevent displacement of community members due to direct impacts and market forces by providing resources that support residents remaining stably and securely housed.

Key Actions (TBD)

✓ Action 1

✓ Action 2

✓ Action 3

As Vancouver grows and housing demand increases, preventing involuntary displacement is essential to maintaining community stability and equity. This goal focuses on minimizing displacement driven by rising housing costs, redevelopment pressures, and public investment and increasing access to homeownership opportunities—particularly for renters, low-income households, and communities of color who face disproportionate risk.

The City's policy approach emphasizes early intervention, targeted protections, affordable home ownership strategies, and equitable development practices. Using displacement risk data, the City will prioritize anti-displacement strategies in areas most vulnerable to market pressure. Policies support tenant protections, emergency rental assistance, relocation assistance, right-of-first-refusal, and community ownership models that help residents remain housed or return to their communities if displacement occurs.

Preventing displacement also includes supporting existing homeowners, particularly low- and moderate-income households, through home repair and preservation programs that help residents remain safely housed as neighborhoods change. In areas experiencing new development or public investment, policies will encourage community benefits that deliver tangible outcomes—such as affordable housing, local hiring, and community facilities—while reducing unintended impacts.

Together, these strategies aim to ensure that growth and investment strengthen neighborhoods without displacing the people who live there.

Supporting Policies			Related Goals
52	**Incorporate Community Benefits into Development**	Develop mechanisms to integrate community benefits into private development that requires discretionary land use review and City-led redevelopment projects. Integrate community benefits into private developments involving discretionary land use approval or City redevelopment efforts while maintaining project feasibility	EI-4
85	**Preserve Stock of Most Affordable Housing**	Preserve the most affordable and accessible housing options in the City and discourage conversion to more expensive housing or commercial uses.	H-3
92	**Analyze and Mitigate Displacement Risk**	Analyze and mitigate for displacement pressures and risks prior to making large-scale public investments.	E-1, H-2, PFS-1
94	**Emergency Rental Assistance**	Provide financial support to help at-risk households remain in their homes, preventing eviction and displacement.	EI-1
95	**Right of First Refusal and Sweat Equity**	Explore models and opportunities for existing residences and businesses to have right of first refusal to purchase property when it is being sold, or build an equity stake in the property over time.	EO-1

96	**Reduce Displacement in the Face of New Growth**	Implement anti-displacement strategies and actions that protect residents and businesses in advance of public investment so communities can remain in place and benefit from improvements.	EI-1
97	**Access to Non-Traditional Homeownership Methods**	Broaden access to homeownership in the community for first time owners, low-income residents, and other groups frequently priced out of homeownership through alternative ownership methods.	CF-1, H-5, H-6
	Culturally Specific and Identity-Based Housing	Work with partners to facilitate and fund housing that reflects the cultures, identities and needs of Vancouver's unique population groups.	H-2, CE-2, EI-1

Goal: H-5 Access to Homeownership

Homeownership is attainable for people across the income spectrum, particularly communities previously excluded from buying a home through racial covenants and discriminatory lending practices.

Key Actions (TBD)

✓ Action 1

✓ Action 2

✓ Action 3

Homeownership remains an important pathway to housing stability and wealth creation, yet many Vancouver residents have been excluded from ownership opportunities due to historic and ongoing barriers. This goal focuses on expanding access to homeownership across incomes, with particular attention to communities previously excluded through discriminatory policies and practices.

The City's policy approach centers on broadening the pathways to ownership rather than relying on a single housing product or market condition. Rising land costs, construction expenses, and financing barriers have made traditional ownership models unattainable for many residents. In response, policies under this goal support a wider range of ownership structures and development approaches that reduce upfront costs and maintain long-term affordability while still allowing households to build equity.

To advance this goal, the City will align land use policy, development incentives, and housing programs to encourage ownership opportunities within new residential development, including mixed-income and mixed-tenure projects. Partnerships with nonprofit organizations and housing providers will be critical to implementing alternative ownership models that stabilize households and preserve affordability over time.

By addressing structural barriers and supporting a broader range of ownership options, these policies aim to ensure that homeownership remains a viable option for current and future residents and contributes to neighborhood stability and intergenerational wealth building.

Supporting Policies		Related Goals
86 **Mixed Income Housing**	Develop incentives to integrate below market housing as part of new market rate housing projects.	H-6
87 **Affordable Homeownership**	Facilitate homeownership opportunities through assistance programs, grants, and other methods that reduce barriers to entry for low- and moderate-income households.	H-6
97 **Access to Non-Traditional Homeownership Methods**	Broaden access to homeownership in the community for first time owners, low-income residents, and other groups frequently priced out of homeownership through alternative home ownership methods.	CF-1, H-4, H-6

Goal: H-6 Affordable Housing

Vancouver community members have access to affordable housing regardless of income, including market rate and income-based housing options, and the City prioritizes long-term preservation of existing affordable units.

Key Actions (TBD)

✓ Action 1

✓ Action 2

✓ Action 3

Housing affordability remains one of the most significant challenges facing Vancouver, particularly for households with incomes below the citywide median. This goal focuses on expanding and preserving affordable housing options to ensure that residents across income levels can access safe, stable housing and remain in the community as the city grows.

The City's policy approach recognizes that the private market does not deliver deeply affordable housing and requires sustained public leadership, funding, and coordination. Policies under this goal emphasize long-term affordability through a combination of direct investment, strategic use of public land, and regulatory and financial incentives that support affordable housing development and preservation.

To meet housing needs by income band over the planning time horizon, the City will continue to leverage local funding sources, pursue partnerships with nonprofit and public housing providers, and advocate for more public resources to build and preserve permanently affordable, rent-restricted housing options. Policies also support integrating affordable housing into areas with access to transit, services, and employment, helping to reduce transportation costs and improve access to opportunity.

Ongoing monitoring and evaluation are essential components of this approach. The City will track housing production, affordability levels, and program outcomes to assess progress toward housing targets and adjust strategies as needed. Together, these policies establish a framework for

sustained investment in affordable housing that supports community stability, equity, and long-term resilience.

Supporting Policies			Related Goals
83	**New Funding Methods for Affordable Housing**	Explore and develop additional funding methods and resources to support affordable housing and community ownership opportunities.	H-1
86	**Mixed Income Housing**	Develop incentives to integrate below market housing as part of new market rate housing projects.	H-5
87	**Affordable Homeownership**	Facilitate homeownership opportunities through assistance programs, grants, and other methods that reduce barriers to entry for low- and moderate-income households.	H-5
88	**Acquire Land for Affordable Housing Development**	Pursue strategic acquisition and utilize existing City-owned land for affordable housing.	None
97	**Access to Non-Traditional Homeownership Methods**	Broaden access to homeownership in the community for first time owners, low-income residents, and other groups frequently priced out of homeownership through alternative ownership methods.	CF-1, H-4, H-5

Economic Opportunity

5

Introduction

A vibrant local economy is critical to ensuring a high quality of life in our community. To ensure access to living wage jobs and business opportunities, the City must support and encourage the growth of its economy in inclusive and strategic ways to deliver shared prosperity. We must learn from the past and seek opportunities to continue Vancouver's transition into an economic driver of the region and state over the next 20 years.

Vancouver's strategic location along the confluence of several rivers has sustained human settlement for thousands of years. As the City grows and changes, its geography and connection to the river remains an important asset. The Chinook people lived in what is now Vancouver for 10,000 years before European contact, and their proximity to the Wimahl ("big river"), now referred to as the Columbia River, allowed them to become prolific traders who lived in relative abundance. In 1825, the original Hudson's Bay Company (HBC) established Fort Vancouver as the regional center of commerce. After HBC relocated to Canada, and until the Second World War, Vancouver's economy was composed of logging and lumber mills, railroads and agriculture, primarily prune farming.

Vision: Economic Opportunity

We envision a future where all community members have access to stable jobs that allow them to support themselves, their families and communities. We commit to prioritizing wealth creation and financial stability for historically excluded groups, growing economic opportunity for all, developing a green economy that mitigates the impacts of climate change, and supporting innovation in business and industry. We recognize that access to housing and childcare is essential to building a resilient and equitable economy. We believe in community-centered economic development that focuses on people and uplifts our existing workforce while providing options for those who will be here in the future. We commit to building and strengthening partnerships to support small businesses and startups, expand workforce training opportunities, break down barriers to entry and promote upward mobility, particularly for historically underserved and excluded communities.

World War II brought industry, primarily shipbuilding, and a growing population to Vancouver, but a decline in industrial jobs after the war led to unemployment, population loss and disinvestment, particularly in the African American community. The construction of I-5 and later the I-205 further disrupted the existing urban fabric of the city, making downtown more difficult to access and encouraging growth in more suburban settings.

More recently, Vancouver has attracted a growing and diverse community and economy. Situated in the heart of the Pacific Northwest, Clark County is exceptionally well-positioned to access major West Coast, Midwest and international markets. Currently, the city of Vancouver encompasses 51.84 square miles and has an estimated 2023 population of 196,441.1 It is the fourth most populous city in Washington State and the second largest city in the Portland-Vancouver-Hillsboro MSA. Vancouver is considered an economic hub of both the region and state, benefitting from proximity to three deep water ports (Port of Vancouver, Port of Portland, and Port of Columbia County), the Portland International Airport (PDX), two interstate highways (I-5 and I-205), and two freight rail lines (Burlington Northern Santa Fe and Union Pacific).

Engagement Feedback

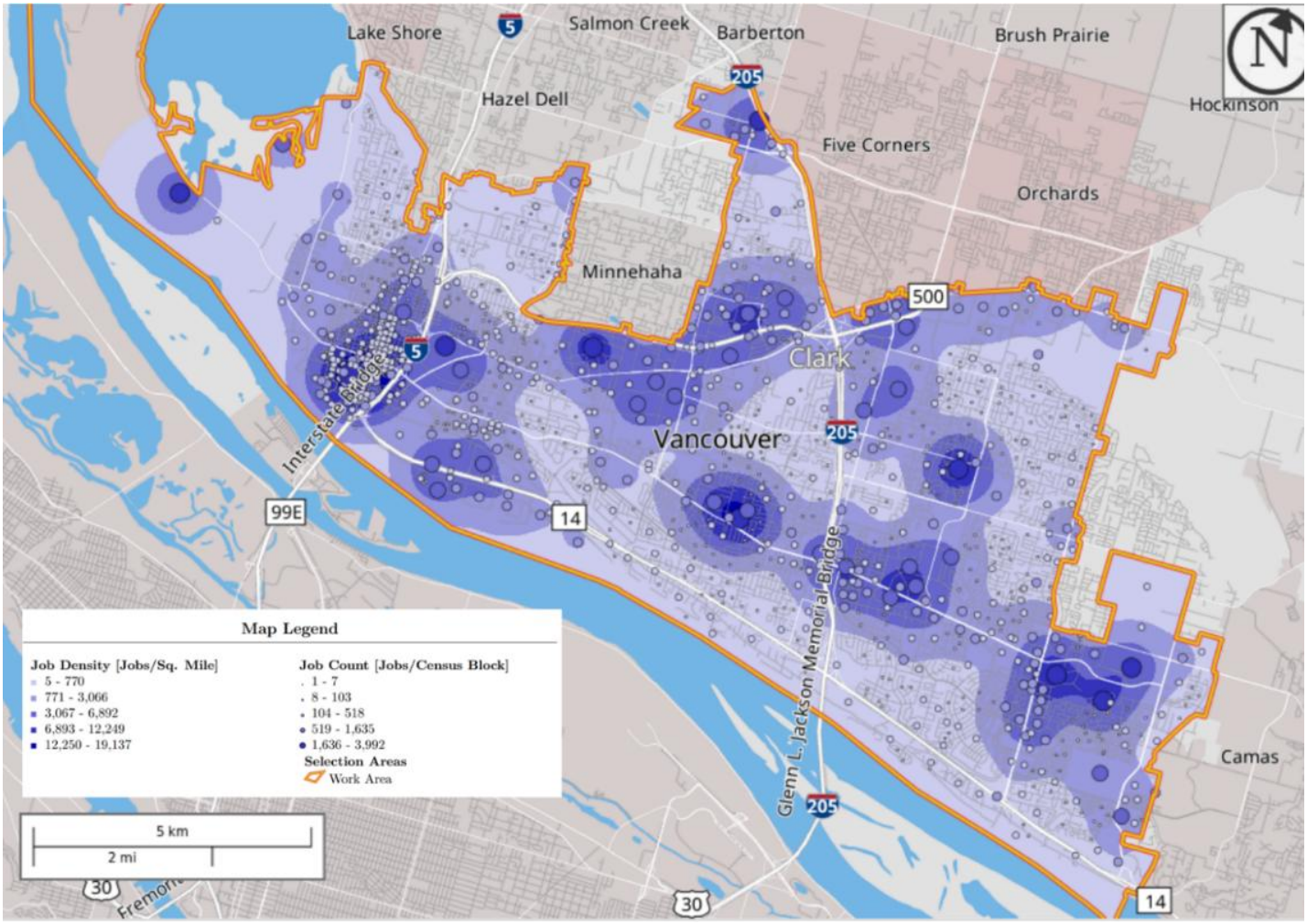
- Neighborhood access to coffee shops, restaurants, and grocery stores
- Accommodate a variety of uses and use cases for small business in land use and zoning codes
- Enable opportunities for flexible use space, food carts, and incubator spaces
- Encourage programs to provide workforce development opportunities and technical assistance for small and emerging businesses, especially for equity priority communities
- Prioritize youth education and developing workforce pipeline
- Require large corporations and developers to support local workforce development priorities

Vancouver's Economy

Vancouver's economy is undergoing a transformative shift. As the city attracts a more professional, service-oriented, and creative workforce, the city is becoming less dependent on traditional manufacturers and more dependent on knowledge-based industries to drive economic growth. Vancouver has experienced rapid population growth over the past two decades, attracting more educated and higher-income workers in targeted sectors like computers and electronics, software, clean tech, metals and machinery manufacturing, and life sciences. This growth and transformation is due to a combination of factors including the City's lack of income tax, recent investments in public infrastructure, access to outdoor amenities, and a relatively lower cost of living compared to other West Coast locations. Because of these factors and a revitalized urban core, Vancouver has grown

into a desirable place for many in the region to live, resulting in in-migration. In particular, white-collar workers gaining greater locational flexibility due to remote work during the COVID-19 pandemic have shifted or accelerated migration patterns and housing preferences permanently. Overall, outmigration of workers from Portland has contributed to Clark County's rapid growth, as well as more families and peak earning workers leaving Oregon in recent years.

Figure 2 Counts and Density of All Jobs, Vancouver, 2020[32]



With rising demand for housing, Vancouver has seen increasing housing costs, rising displacement pressures, and economic disparities among communities. In particular, people of color in Vancouver face higher levels of cost burdening, lower median incomes, lower rates of homeownership, and lower rates of educational attainment. In 2023, the median incomes of Black or African American households or Hispanic or Latino households were below the median income in Vancouver.[33]. Housing cost burden was also most prevalent for Black or African American and Hispanic or Latino households, indicating additional economic burdens.

[32] Census OntheMap
[33] 2023 American Community Survey

The City of Vancouver has several employment centers dispersed throughout the city supporting a higher concentration of jobs (see Figure 3 below). Vancouver's downtown area located near I-5 has the highest concentration of employment, with other centers around major employers like Clark College, the Port of Vancouver, PeaceHealth medical facilities along Mill Plain Boulevard, the Vancouver Mall and other strip shopping centers along WA-500, and technology and innovation hubs such as Vancouver Innovation Center (VIC) on the east side.

Workforce in 2023

13.2k Net job increase in Clark County

62.4% Employed in white collar professions

19.4% Employed in blue collar professions

18.2% Employed in the service sector

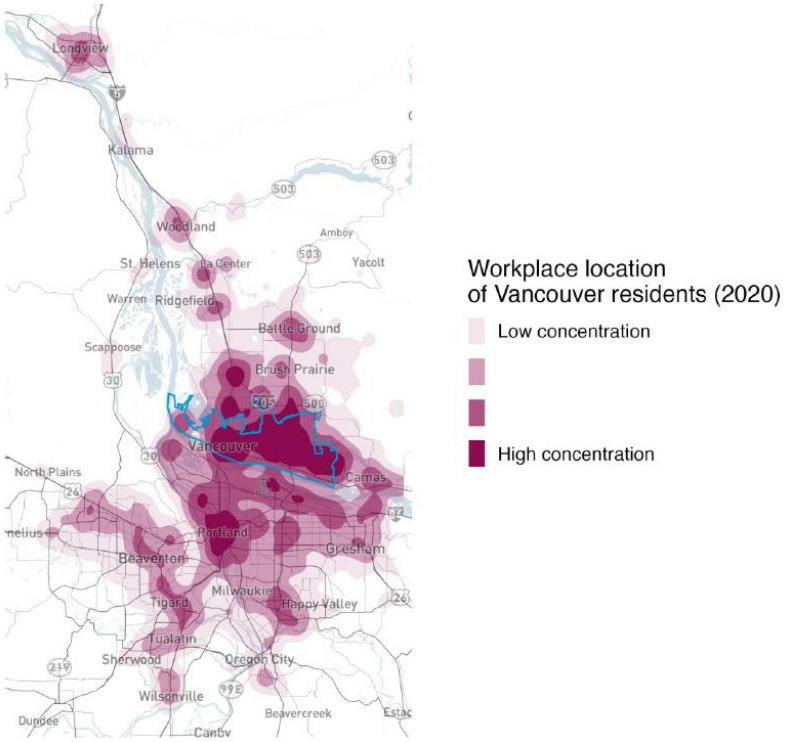
70% of workforce lives outside city limits

66% of residents work outside city limits

Vancouver's Workforce

The region's growth includes more educated and early working age adults, and higher income households. An increasingly educated and skilled workforce can help attract and retain employers, including those in Columbia River Economic Development Council's (CREDC) current target industry clusters for the County (Computers and Electronics, Software, Clean Tech, Metals and Machinery, Life Sciences). A portion of this skilled workforce in occupations allowing for locational flexibility (such as tech-intensive industries) could work remotely at least part of the time or in co-working spaces rather than fulltime at a centralized office space. As of 2023, approximately 16.2% of Vancouver's workers worked remotely and 53% of these workers earn over $65,000 per year[34] (see the Vancouver Housing Needs Assessment for more information).

Figure 3 Workplace Location of Vancouver Residents (2020)



Compared to the national average, Vancouver has higher-than-average employment concentrations in the transportation and real estate sectors. An estimated 70% of people who *work* in Vancouver *live* outside the city, while approximately 39.5% of people who *live* in Vancouver *work* outside the city.

[34] 2023 American Community Survey

As higher-income households move into the city, it is likely to increase housing costs and displacement pressures for lower-income households. Renters are nearly three times as likely to be cost burdened than homeowners, with over a quarter of renters severely cost burdened, spending more than 50% of income on rent. In Vancouver, Black or African American households and Hispanic or Latino households experience the highest rates of cost burden. The Land Use and Housing chapters of the plan address housing disparities in Vancouver and include goals and policies that aim to provide diverse housing opportunities for all residents.

Employment Land

Clark County made several updates to its Vacant and Buildable Land Model (VBLM) in February 2024. This version incorporates yield estimates from local jurisdictions and updates the configuration to consider zoning and allowed residential densities. **Error! Reference source not found.** below shows updated assumptions for jurisdictions in Clark County. In Vancouver and the City's Urban Growth Area (UGA), the changes to the VBLM indicate a slightly lower jobs assumption than the previous 2022 model. The City is still expected to account for roughly half (51%) of jobs in the County, with capacity for 33,193 total jobs through 2035, across 2,414 buildable acres in the City and 3,503 buildable acres in the UGA.

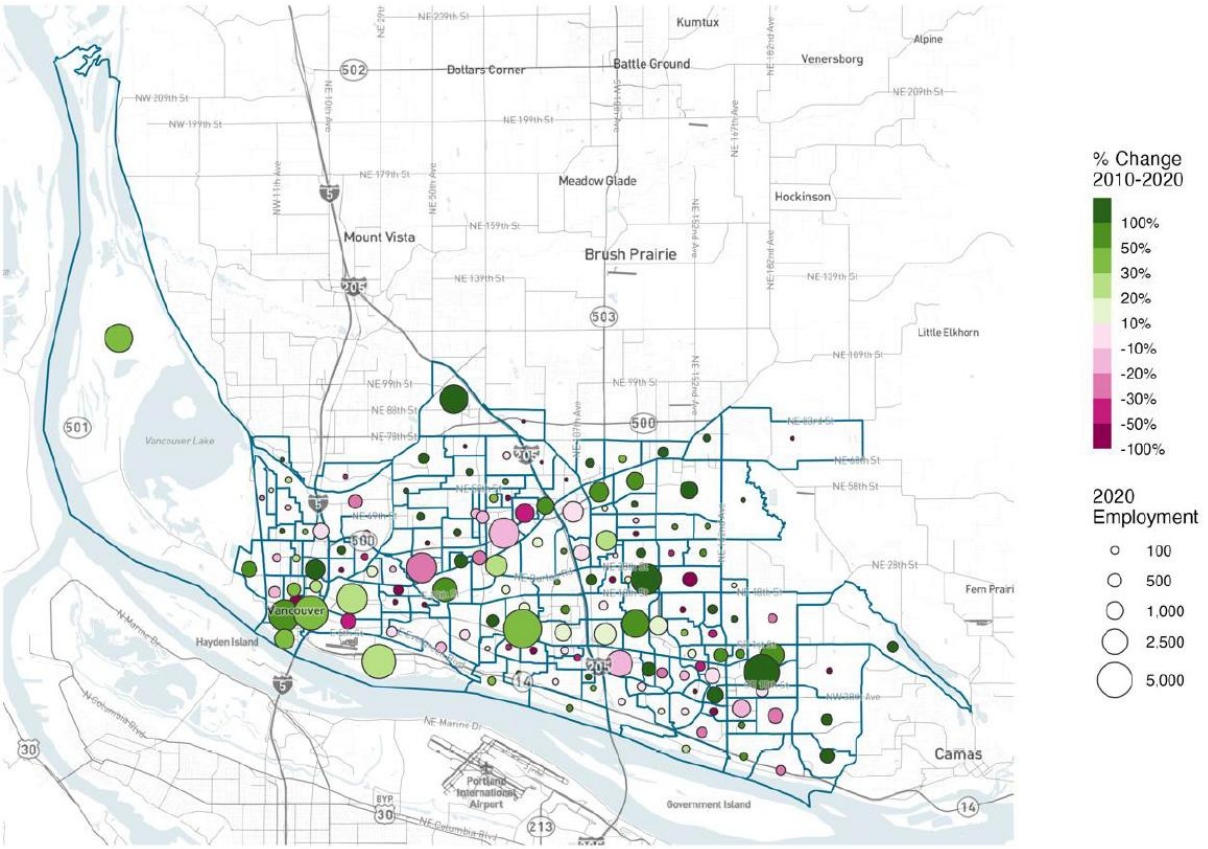


Figure 4 Change in Employment by Census Tract, Vancouver, 2010-2020[35]

[35] LODES 2020

Clark County recently adopted a countywide employment projection of 269,000 total jobs to be used with the County's 2025 Comprehensive Plan Update. Vancouver is projected to add anywhere between 46,000 new jobs and 49,000 new jobs Citywide by 2045, and an additional 18,221 jobs in its UGA by 2045 (the most of any jurisdiction in the County). According to US Census data, between 2010 and 2020, Downtown Vancouver, the Columbia Business Center in East Vancouver and the 122nd avenue corridor have absorbed the most job growth. Areas surrounding the Vancouver mall have seen the greatest overall decrease in employment.

Equity Lens

Vancouver's economic opportunity strategies must be grounded in the lived realities of its residents—particularly those who have long been excluded from wealth-building systems. While the city's median household income reached $76,733 in 2023, this figure masks stark disparities. Black or African American and Hispanic or Latino households earn well below the citywide median and face the highest rates of housing cost burden, with more than 50% of renters in these groups spending over half their income on housing. Business ownership is disproportionately concentrated among white residents, and educational attainment gaps persist: less than 20% of Black and Latino residents over 25 hold a bachelor's degree, compared to over 40% of white and Asian residents. Vancouver's Gini Index—a measure of income inequality—stood at 0.42 in 2024, meaning the top 10% of earners make more than double the income of the bottom 45%. These disparities are not incidental; they are the product of policies and systems that have excluded BIPOC, immigrant, and low-income communities from full participation in the local economy. To reverse these trends, implementation must prioritize place-based investments in neighborhoods like Fourth Plain and Rose Village, expand culturally specific small business assistance and workforce programs. Policymakers should use disaggregated data—such as business ownership by race and neighborhood-level income trends—to track outcomes and guide public investment.

The goals and policies in this plan are consistent with the City's Economic Development Strategy and support a balance of jobs for workers in diverse fields that are resilient to fluctuations in the global and regional economy and pay living wages that allow workers to continue to live in Vancouver. Workforce development programs can contribute to a more equitable and sustainable local economy by targeting disadvantaged groups. Additionally, this plan includes inclusive economic development policies that prioritize both the growth and retention of industries that provide employment opportunities for those without advanced degrees or specialized skills, such as traditional manufacturing jobs, construction related jobs, or labor in skilled trades.

Goal: EO-1 Invest in People

Vancouver has a robust local economy that supports community-wide prosperity, with a range of employment opportunities that provide stable, family-wage jobs, and an ecosystem of training and skill building resources to build the workforce of the future.

Key Actions

*placeholder for top 5 action items identified through technical working groups

Vancouver's ability to build a resilient, inclusive economy hinges on whether all residents can access stable, family-wage employment. This goal recognizes that economic development is not just about business recruitment or industrial land capacity, but enabling human potential. The policies supporting this goal work to reduce barriers to education and employment, expand access to affordable and available childcare, support small business ownership in historically excluded communities, create clear and equitable pathways into high-demand careers, and create opportunities for generational. wealth. While Vancouver is attracting higher-income residents and businesses in growing sectors like professional services and tech, these opportunities have not been widely shared. BIPOC households continue to experience lower median incomes, higher housing cost burdens, and lower educational attainment rates, underscoring the need for intentional, equity-focused economic policy. Service sectors like retail, education, and healthcare — which employ a large portion of Vancouver's workforce — often do not provide living wages, and the city's ability to close that gap depends on investments in workforce training, apprenticeships, small business support, and a competitive business climate. Vancouver's high jobs-to-housing ratio and rising cost of living create real barriers for low-income families work and live in the city. By coordinating across these policy areas, Vancouver can ensure that new economic growth translates into shared prosperity. Measurable indicators such as the number of living-wage jobs, the

successful launch and growth and small businesses, access to affordable childcare, apprenticeship placements, and post-secondary enrollment will help the city track its progress toward the vision and adjust strategies to meet the evolving needs of the community.

Supporting Policies		Related Goals
29 **Access to Education and Employment**	Reduce barriers to accessing education and employment opportunities, so all community members can reach their full potential.	EI-1, EI-5
30 **Support Access to Childcare**	Support the development of new childcare facilities in the City and eliminate regulatory barriers preventing their creation.	EI-3
31 **Support Small Businesses**	Foster inclusive economic growth through access to capital and technical assistance that support small business owners and from historically excluded and underserved communities.	EO-4, EI-1
35 **Expand Workforce Development and Career Pathways**	Ensure all residents have access to career pathways, workforce training, and entrepreneurship opportunities that lead to living-wage jobs and wealth creation, with a focus on underrepresented communities.	EI-1, CF-4
95 **Right of First Refusal and Sweat Equity**	Explore models and opportunities for existing residences and businesses to have right of first refusal to purchase property when it's being sold or build an equity stake in the property over time.	H-4

Goal: EO-2 Thriving Economy and Industries

By 2045, Vancouver will have added 44,000 new jobs by attracting diverse businesses and industries, fostering innovation and entrepreneurship, supporting local small businesses and startups, leveraging new technologies, and providing the infrastructure, workforce, and resources the economy need to thrive and grow sustainably.

Key Actions

*placeholder for top 5 action items identified through technical working groups

Vancouver's economic competitiveness in 2045 will be measured not just by the number of jobs added, but by the quality, diversity, and sustainability of the businesses and industries that fuel economic growth. The city is projected to add over 44,000 new jobs by 2045, with Vancouver and its Urban Growth Area expected to capture more than half of all employment growth in Clark County. This includes 26,317 new jobs within city limits and 19,253 in the adjacent UGA. Much of this growth will rely on preserving and activating the city's industrial lands — which comprise over 2,400 net buildable acres, or 62% of the county's industrial land capacity — and ensuring it remains accessible to employers offering living wage jobs. The city must take an active role in shaping a business environment that supports startups and entrepreneurs through policies like leveraging city-owned land for affordable commercial space and streamlining permitting processes. Job-creating businesses must also have access to multimodal freight corridors and modern port infrastructure, particularly in sectors that depend on the efficient movement of goods. Vancouver's strategic location—at the nexus of I-5, I-205, multiple national rail lines, and deep water ports make it a prime hub for production based industries. Supporting local job growth also means investing in place-based development and flexible spaces that can

respond to the evolving needs of businesses. Policies under EO-2 reinforce these strategies, from conserving employment lands and leveraging public infrastructure to optimize freight mobility. The city will measure its progress through the total number of jobs created, business retention and attraction data, and the number of new small businesses that remain in operation beyond their first two years — all of which serve as indicators of a thriving, resilient, and inclusive economy.

Supporting Policies			Related Goals
32	**Conserve Lands Providing Employment**	Conserve and invest in industrial lands and other areas that provide employment for middle & high wage jobs.	LU-2
34	**Leverage City-Owned Assets for Affordable Commercial Space**	Utilize City-controlled real estate to provide affordable commercial opportunities for small and emerging businesses.	EO-4, EI-1
36	**Facilitate Job-Creating Business Growth and Investment**	Support businesses that create high-quality jobs by reducing barriers to growth, streamlining development processes, and ensuring access to necessary resources and infrastructure.	EO-4, CF-4
42	**Employment Hubs**	Support integrated development, with commercial activities, public services, employment and amenities near residential development.	LU-2, LU-4
90	**Optimize Freight Corridors**	Designate and enhance freight corridors to facilitate the efficient movement of goods and reduce congestion.	TM-3
91	**Enhance Port Access and Multimodal Freight Solutions**	Improve infrastructure and connectivity to and from the Port of Vancouver to streamline freight operations.	TM-3

Goal: EO-3 Circular and Sustainable Economy

Vancouver's economy is sustainable, circular, and supports climate action and resiliency. City investments in economic development promote holistic cycles of consumption and production, prioritizes renewable resources, and support industries that advance environmental health and economic stability.

Key Actions

*placeholder for top 5 action items identified through technical working groups

A sustainable and resilient economy is one that not only grows—but does so in alignment with climate goals. This idea reflects Vancouver's commitment to building an economy that reduces waste, supports local supply chains, and prioritizes industries that regenerate rather than deplete natural resources. As Vancouver prepares for over 43,000 new housing units and new commercial development to support that growth by 2045, the opportunity to scale circular practices—such as sourcing materials locally, reducing embodied carbon in construction, and expanding access to recycled and reclaimed inputs—has never been greater. This transition requires rethinking the full economic cycle: from where materials come from, to how goods are produced, consumed, reused, and ultimately reintegrated into the economy. The city's evolving employment landscape also underscores the need for economic resilience. Vancouver's workforce is still concentrated in service sectors vulnerable to climate disruptions, but growth is emerging in clean technology, life sciences, and green construction. At the same time, 17% of workers are now remote—many earning above $65,000 a year—highlighting a shift in where and how people work, and an opportunity to localize more jobs that support community self-sufficiency. A more circular economy will reduce vehicle miles traveled, create durable green jobs, and decrease waste at every stage of the supply chain. Collectively, the policies under EO-3 ensure that economic development in Vancouver strengthens both environmental health and long-term economic stability.

Supporting Policies			Related Goals
18	**Embodied Carbon**	Source materials used in the construction and development of new housing and commercial spaces from within the region, utilize low carbon materials, or utilize materials found on site, reducing embodied carbon.	CL-3
23	**Recycling and Organic Material Management**	Use green materials and practices when procuring materials and services, and while carrying out maintenance functions.	CL-3
113	**Build a Resilient Economy**	Encourage business retention and expansion, with an emphasis on family-wage jobs and foster resilience within Vancouver's economy.	CL-1

Goal: EO-4

Place Based Economic Development

Vancouver strengthens a sense of place by directing investment, policy, and partnerships to key activity hubs that support local businesses, community-serving amenities, job access, and shared prosperity.

Key Actions

*placeholder for top 5 action items identified through technical working groups

A strong and inclusive economy is one that is rooted in place—where economic activity strengthens neighborhoods, reflects community identity, and creates opportunity close to where people live. This approach reflects Vancouver's commitment to directing investment, policy, and partnerships toward key hubs of activity that support local businesses, community-serving amenities, job access, and shared prosperity. Rather than relying solely on citywide growth strategies, place-based economic development focuses on the specific conditions, assets, and needs of different neighborhoods, recognizing that economic opportunity is shaped by geography, access, and the built environment.

As Vancouver continues to grow and evolve, the opportunity to reinforce neighborhood-scale economic hubs has never been greater. New housing development, infrastructure investments, and public realm improvements will reshape how people live, work, and access services across the city. Targeted investment in neighborhood business districts, employment centers, and mixed-use hubs—particularly in historically underinvested corridors—allows the City to strengthen local entrepreneurship, expand access to daily goods and services, and support small businesses that anchor community life. These areas

serve not only as centers of economic activity, but also as social and cultural gathering places that contribute to neighborhood vitality and identity.

Vancouver's economic landscape also underscores the importance of localizing opportunity. Small and emerging businesses—particularly those owned by historically marginalized entrepreneurs—often face barriers related to rising commercial rents, permitting complexity, and limited access to capital. Place-based strategies allow the City to respond to these challenges by aligning land use, infrastructure, public space, and economic tools in ways that support business stability and prevent displacement as neighborhoods change. The policies under EO-4 ensure that economic development in Vancouver strengthens a sense of place while advancing equitable access to opportunity and shared prosperity across the city.

Supporting Policies			Related Goals
31	**Support Small Businesses**	Foster inclusive economic growth through resources that support small business owners, entrepreneurs and members of historically excluded and underserved communities.	EO-1 EI-1
37	**Strengthen Neighborhood Business Districts**	Ensure neighborhood business districts are safe, vibrant, and accessible hubs of economic activity through strategic public and private investment.	LU-1
41	**Sub-Area Plans**	Develop and update subarea plans for centers identified in the plan's growth model, facilitating the development of integrated residential, commercial, employment and community uses.	LU-1, CL-3, CL-4
73	**Center Impacted Voices in the Development of Community Spaces**	Engage community organizations and individuals representing diverse lived and cultural experiences in the planning, design and programming of community spaces.	CE-1, CE-5 EI-1, EI-4, PR-4
152	**Align Place Based Investment with the Growth Model**	Align City investments, incentives, and programs to reinforce key centers identified in the growth model as points for local economic development efforts and community investment.	None

City Council Meeting Minutes

Vancouver City Hall | Council Chambers | 415 W. 6th St.
PO Box 1995 | Vancouver, WA 98668-1995
cityofvancouver.us

Anne McEnerny-Ogle, Mayor • Bart Hansen • Ty Stober • Erik Paulsen • Sarah J. Fox • Diana H. Perez • Kim D. Harless

January 5, 2026

Council Dinner / Administrative Updates (6:00 - 6:30 PM)

Regular Council Meeting

6:30 PM
Vancouver City Hall - Council Chambers - 415 W 6th Street, Vancouver WA

This meeting was conducted as a hybrid meeting with in person and remote viewing and participation over video conference utilizing a GoToMeeting platform. Members of the public were invited to view the meeting in person, via the live broadcast on www.cvtv.org and CVTV cable channels 23 or HD 323, or on the City's Facebook page, www.facebook.com/VancouverUS. Public access and testimony on Consent Agenda items and under the Community Forum were also facilitated in person and via the GoToMeeting conference call.

Vancouver City Council meeting minutes are a record of the action taken by Council. To view the CVTV video recording, including presentations, testimony and discussion, for this meeting please visit: https://www.cvtv.org/video/vancouver-city-council-01-05-26-2026011002/

Electronic audio recording of City Council meetings are kept on file in the office of the City Clerk for a period of six years.

Pledge of Allegiance

Call to Order and Roll Call

The regular meeting of the Vancouver City Council was called to order at 6:30 p.m. by Mayor McEnerny-Ogle. This meeting was conducted as a hybrid meeting, including both in person and remotely over video conference.

Present: *Councilmember Harless, Councilmember Perez, Councilmember Fox, Councilmember Paulsen, Councilmember Stober, Councilmember Hansen, Mayor McEnerny-Ogle*

Absent: *None*

Councilmembers Stober and Harless joined the meeting remotely.

Approval of Minutes

Minutes - December 1, 2025

Motion by Councilmember Hansen, seconded by Councilmember Paulsen, and Yes: 7, No: 0, Abstaining: 0, to approve the December 1, 2025 Meeting Minutes.

Minutes - December 8, 2025

Motion by Councilmember Paulsen, seconded by Councilmember Perez, and Yes: 7, No: 0, Abstaining: 0, to approve the December 8, 2025 Meeting Minutes.

Minutes - December 15, 2025

Motion by Councilmember Paulsen, seconded by Councilmember Hansen, and Yes: 7, No: 0, Abstaining: 0, to approve the December 15, 2025 Meeting Minutes.

Community Communication

This is the place on the agenda where the public is invited to speak to Council regarding any matter on the Agenda not already scheduled for Public Hearing. (Separate instructions are provided for offering testimony on Public Hearing when applicable.) This includes the option to testify about Workshops. Members of the public addressing Council are requested to give their name and city of residence for the audio record. Speakers are to limit their testimony to a total of three minutes for all items combined.

Mayor McEnerny-Ogle opened Community Communication and received testimony from the following community members regarding any matter on the agenda not scheduled for a Public Hearing:

- *Carmen DeLeon, Vancouver*

There being no further testimony, Mayor McEnerny-Ogle closed Community Communication.

Consent Agenda

The following items will be passed by a single motion to approve all listed actions and resolutions. There will be no discussion on these items unless requested by Council. If discussion is requested, the item will be moved from the Consent Agenda and considered separately – after the motion has been made and passed to approve the remaining items.

Council pulled item 4 for discussion.

Motion by Councilmember Paulsen, seconded by Councilmember Fox, and Yes: 7, No: 0, Abstaining: 0, to approve Items 1-3, and 5 on the Consent Agenda.

Motion by Councilmember Fox, seconded by Councilmember Perez, and Yes: 4, No: 3, Abstaining: 0, to approve Item 4 on the Consent Agenda. Councilmembers Hansen, Stober and Harless voted No.

1. Contract Amendment — Increase in Purchasing Fuel from Wilson Oil - Contract C-101853

Staff Report: 001-26

Request: On Monday, January 5, 2025, authorize the City Manager, or designee, to finalize and execute a contract amendment with Wilson Oil, Inc. to increase the current contract threshold from $1,725,000 to $3,500,000 for purchasing unleaded and R99 renewable diesel fuels.

Jacob Mahan, Senior Management Analyst, jacob.mahan@cityofvancouver.us

Motion approved the request.

2. Contract Amendment — New Public Works Operations Campus – General Contractor Construction Manager Amendment #3 with Skanska USA — C-101995

Staff Report: 002-26

Request: On Monday, January 5, 2026, authorize the City Manager, or designee, to authorize the execution of contract amendment #3 with Skanska USA Building Inc. of Portland, OR for MACC #3 in the amount of $218,043.

Jason Olson, Capital Projects Project Manager, Jason.Olson@cityofvancouver.us

Motion approved the request.

3. Addendum to City Manager Employment Agreement

Staff Report: 003-26

Request: On Monday, January 5, 2026, approve the Addendum to City Manager Employment Agreement and authorize the Mayor to execute the same.

Nena Cook, City Attorney, nena.cook@cityofvancouver.us

Motion approved the request.

4. Multi-Family Tax Exemption Certificate Extension — Green Leaf Uptown Apartments

A RESOLUTION of the City Council of the City of Vancouver approving a contract with Green Leaf Uptown LLC, a Delaware limited liability company (Applicant) to extend, for 12 years, an expiring 8-year market-rate multifamily tax exemption final certificate for the 167-unit Green Leaf Apartments project located at 1700 Main Street, Vancouver WA 98660 (Property) (Exhibit A).

Staff Report: 225-25

Request: On Monday, January 5, 2026, adopt the resolution authorizing the City Manager, or designee, to execute a multi-family housing limited property tax exemption extension and take any and all action necessary to enforce the terms thereof.

Bryan Monroe, Associate Housing Project Coordinator, bryan.monroe@cityofvancouver.us

Motion adopted Resolution M-4365 to approve the request.

5. Approval of the Claim Vouchers

Request: Approve claim vouchers for January 5, 2026.

Motion approved claim vouchers in the amount of $37,803,845.84.

Communications

A. From the Council

B. From the Mayor

Election of Mayor Pro Tem

Councilmember Hansen nominated Councilmember Fox for Mayor Pro Tempore. Councilmember Fox accepted the nomination. There were no other nominations for Mayor Pro Tempore.

Mayor McEnerny-Ogle called for a vote from Council to approve Councilmember Fox as the Mayor Pro Tempore.

Yes: 7, No: 0, Abstaining: 0, to approve Councilmember Fox as the Mayor Pro Tempore.

2026-2027 Council Board and Committee Assignments

The City Councilmembers discussed the assignments for the Council Boards and Committees for 2026-2027.

Motion by Councilmember Paulsen, seconded by Councilmember Perez, and Yes: 7, No: 0, Abstaining: 0, to approve all of the Boards and Committees assignments, except for C-TRAN board assignments.

Motion by Councilmember Perez, seconded by Councilmember Fox, and Yes: 7, No: 0, Abstaining: 0, to remove Councilmember Stober as the alternate for C-TRAN and replace him with Councilmember Harless as the alternate.

Motion by Councilmember Fox, seconded by Councilmember Perez, and Yes: 6, No: 1, Abstaining: 0, to approve the board representatives for C-TRAN. Councilmember Harless voted No.

C. From the City Manager

Community Forum

This is the place on the agenda where the public is invited to speak to Council regarding any matter. Members of the public addressing Council are requested to give their name and city of residence for the record. Speakers are to limit their testimony to a total of three minutes. Up to 90 minutes will be allotted for the Community Forum.

Mayor McEnerny-Ogle opened the Community Forum and received testimony from the following community members regarding any matter:

- Cindi Fisher, Vancouver
- Jared Essig, Multnomah County, Oregon
- James Clark, Vancouver

There being no further testimony, Mayor McEnerny-Ogle closed Community Forum.

Adjournment

7:30 p.m.

_____

Anne McEnerny-Ogle, Mayor

Attest:

_____

Natasha Ramras, City Clerk

The written comments below are those of the submitter alone and are not representative of the views of CVTV or the City of Vancouver, its elected or appointed officials, or its employees.

CITY OF Vancouver WASHINGTON

Staff Report: 004-26

To: Mayor and City Council
From: City Manager
Date: January 12, 2026

Subject
Loan Contract Approval for Water Station 9 Treatment System Project

Key Points

- Compliance with Regulations: The project will ensure Water Station 9 complies with state and federal PFAS regulations for safe drinking water.
- Loan Funding: The City has been awarded up to $12 million in Drinking Water State Revolving Fund (DWSRF) money from Washington State Department of Health (WDOH) for this project in the form of a low-interest rate loan.

Strategic Plan Alignment
Safe and Prepared Community – a safe place to live, work, learn and play

Present Situation
Water Station 9 is a key component of the City's drinking water system with five active groundwater wells supplying treated water to the distribution system. Water quality monitoring has identified PFAS in the groundwater, requiring mitigation to meet state and federal regulatory standards. The Water Station 9 PFAS Treatment project will construct treatment facilities to remove PFAS from the drinking water at this site to meet required regulatory levels.

The City has been awarded funding for this project through WDOH and intends to use these awarded funds to assist in the cost of design and construction for the treatment upgrades at Water Station 9. The City also has DWSRF forgivable loan contracts with WDOH for the Water Station 14 and Water Station 4 PFAS projects, and is therefore familiar with managing this funding source. The proposed contract for the Water Station 9 project is attached and a summary breakdown of the loan terms is provided below.

Funding Source	Washington State Dept. of Health
Amount	$12,000,000
Interest Rate	1.75%

Design is underway for this project under existing professional services agreement C-101850 with Brown and Caldwell. In anticipation of receiving this award, the professional services work by Brown and Caldwell has complied with federal and state loan requirements. If these contracts are approved, the City will have 18 months from the contract execution date to award a construction contract for the Water Station 9 PFAS project.

Advantage(s)

Provides financial assistance to offset local fund needs to complete a large capital water infrastructure project.

Challenge(s)

The project will be subject to both federal and state funding requirements, which include specific reporting procedures and requires that the City award the construction contract 18 months from the contract execution date.

Budget Impact

Funding for this project will be supported by the awarded grants/loans and grant appropriation is requested in the 2026 Supplemental. The project is included in the six-year capital work plan for the Water Division.

Prior Council Review

- Approved in the 2025-2026 Capital Water Budget.
- Staff Report 019-25, February 3, 2025, Phase 1 – Preliminary Design
- Staff Report 183-25, September 8, 2025, Phase 2 – Final Design

Action Requested

On Monday, January 12, 2026, authorize the City Manager, or designee, to finalize and execute loan contract DWL31575-0 between the City of Vancouver and the Washington State Department of Health.

Staff Contact

Mehrin Selimgir, Water Engineering Manager, Mehrin.Selimgir@cityofvancouver.us

Attachments:

1. Loan Contract - DWL31575-0 City of Vancouver WS 9 PFAS
2. Federal Funding Data Collection Form
3. Site Aerial Map

11/19/2025

City of Vancouver
Lon Pluckhahn
415 W 6th Street
Vancouver, WA 98660
lon.pluckhahn@cityofvancouver.us

RE: Loan Contract Number: DWL31575 -0

Dear Mr. Pluckhahn;

Enclosed is the Drinking Water State Revolving Fund Loan Contract Number identified above for your signature. The Loan Contract details the terms and conditions that will govern the agreement between us, which includes the project's Scope of Work as a formal attachment. Failure to return the contracts within 60 calendar days of the date of this letter may result in your loan offer being withdrawn.

Review, print, and sign the document. Once signatures are obtained, please scan and return by email to your DOH contracts representative or print and sign a hard copy, and return the originals to us for full execution.

Please note that the U.S. Environmental Protection Agency is the funding source for this program and the Catalog of Federal Domestic Assistance (CFDA) number is 66.468. Consequently, the loan funds are federal and subject to both state and federal requirements.

A non-refundable one-percent loan administration fee will be collected at contract execution (If applicable), including any subsequent amendments where funds are added. The loan amount may be modified to include an amount sufficient to cover the one-percent loan administration fee. In most cases, the fee will be collected in full at contract execution. Please review the terms and conditions of the Loan Contract and all attachments carefully for details.

A requirement of the DWSRF program is that you must maintain updated project records and yearly renewal of your registration in the System for Award Management at www.sam.gov.

Another requirement of the DWSRF program is that all entities are required to verify that the federal government has not suspended or debarred them from receiving federal funds. This includes, but is not limited to, project contractors, subcontractors, engineers, architects, consultants, and equipment vendors. The Exclusion Report can be accessed at www.sam.gov. Failure to provide this required certification may result in termination of your loan contract.

After the Loan Contracts have been signed by the Department or its designee, one fully executed original will be returned to you for your files. Instructions for drawing the loan funds will be returned to you with the executed Loan Contract, as well as the necessary forms. The Loan Contract specifies that draws may be made for costs that have been incurred within the contract period of performance, and which have supporting documentation such as receipts or bills.

We are looking forward to working with you over the course of this project. If you have any questions about this Loan Contract, please contact me.

Sincerely,

Rachel Paris
DOH Contract Manager
(360) 236-4294
Rachel.Paris@DOH.WA.GOV

Enclosures:
ATTACHMENT I: SCOPE OF WORK (PROJECT)
ATTACHMENT II: ATTORNEY'S CERTIFICATION
ATTACHMENT III: FEDERAL AND STATE REQUIREMENTS
ATTACHMENT IV: DISADVANTAGED BUSINESS ENTERPRISE REQUIREMENTS
ATTACHMENT V: CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS
ATTACHMENT VI: DWSRF ELIGIBLE PROJECT COSTS
ATTACHMENT VII: LABOR STANDARD PROVISIONS FOR SUBRECIPIENTS THAT ARE GOVERNMENTAL ENTITIES

Washington State Department of Health

DWSRF Municipal Loan Boilerplate

September 2025

Version History		
Date	**Revision(s)**	**Version**
05-15-2018	Original - developed via a team of the DWSRF Grant and Loan Unit Supervisor, the DOH Office of Drinking Water Finance Director, the DOH Office of Contracts and Procurement Technical and Policy Advisor, and DOH's Financial Services Assistant Attorney General.	1
09-15-2025	DOH's Office of Drinking Water worked with AHD Assistant Attorney General to modify template and incorporate up-to-date provisions for public works projects performed in the State of Washington.	2

1. CONTRACT FACE SHEET

 # 2024-4351 Loan Number: DWL31575-0
Washington State Department of Health (DOH)
Drinking Water State Revolving Fund (DWSRF)
Municipal

<table>
<tr><td colspan="2">1. Borrower

City of Vancouver
415 W 6th Street Vancouver, WA 98660</td><td colspan="2">2. Borrower Doing Business As (optional)</td></tr>
<tr><td colspan="2">3. Borrower Type
Construction Loan</td><td colspan="2">4. Borrower's Statutory Authority</td></tr>
<tr><td colspan="2">5. Borrower Contract Manager Information
Lon Pluckhahn
City Manager
360-487-8600
Lon.pluckhahn@cityofvancouver.us</td><td colspan="2">6. DOH Contract Manager
Rachel Paris
P.O. Box 47822
Olympia, WA 98504-7822
(360) 236-4294
Rachel.Paris@DOH.WA.GOV</td></tr>
<tr><td colspan="4">7. Project Name: Water Station 9 PFAS</td></tr>
<tr><td>8. Loan Amount:
$12,000,000.00
Loan Fee: $0.00
Interest Rate: 1.75%</td><td>9. Funding Source

Federal: ☒ State: ☐
Other:☐</td><td>10. Start Date

Date of Last Signature</td><td>11. End Date

10/01/2049</td></tr>
<tr><td colspan="4">12. Federal Funding Agency Environmental Protection Agency
Catalogue of Federal Assistance (CFDA) Number 66.468</td></tr>
<tr><td>13. Borrower Tax ID #
91-6001288</td><td>14. SWV #
0008489-00</td><td>15. Borrower UBI #
065-001-364</td><td>16. Borrower UEI#
TM9CHABUP4B2</td></tr>
<tr><td colspan="4">17. Contract Purpose
DOH and the party identified above as Borrower (BORROWER), have entered into this loan agreement (CONTRACT) to fund the project identified above and further described in Attachment I (Scope of Work) (PROJECT) that furthers the goals and objectives of the DOH DWSRF Program (PROGRAM). The Project will be done by the BORROWER as described in the Attachment I (Scope of Work) and this Contract. The rights and obligations of the parties are governed by this Contract and the following documents are incorporated by reference: (1) General Terms and Conditions including Declarations; (2) Attachment I–Scope of Work; (3) Attachment II–Attorney's Certification; (4) Attachment III–Federal and State Requirements; (5) Attachment IV–Disadvantaged Business Enterprise Requirements; (6) Attachment V–Certification Regarding Debarment, Suspension, and Other Responsibility Matters; (7) Attachment VI–DWSRF Eligible Project Costs; and (8) Attachment VII–Labor Standard Provisions for Subrecipients that are Governmental Entities. By signing below, the parties acknowledge and accept the terms of this Contract.</td></tr>
<tr><td colspan="2">AUTHORIZED REPRESESENTATIVE OF BORROWER</td><td colspan="2">AUTHORIZED REPRESENTATIVE OF DOH</td></tr>
<tr><td colspan="2">_____
Signature

_____
Print Name

_____
Title

_____
Date</td><td colspan="2">_____
Signature

_____
Print Name

_____
Title

_____
Date</td></tr>
</table>

	TEMPLATE APPROVED AS TO FORM ONLY Lisa Koperski, AAG Signature on File Sept. 16, 2025 Date

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ATTACHMENT III	FEDERAL AND STATE REQUIREMENTS
ATTACHMENT IV	DISADVANTAGED BUSINESS ENTERPRISE REQUIREMENTS
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ATTACHMENT VII	LABOR STANDARD PROVISIONS FOR SUBRECIPIENTS THAT ARE GOVERNMENTAL ENTITIES

3. DECLARATIONS

3.1. BORROWER INFORMATION

Legal Name:	City of Vancouver
Loan Number**:**	DWL31575-0
Application number	2024-4351
Award Year:	2025
State Wide Vendor Number:	0008489-00

3.2. PROJECT INFORMATION (PROJECT)

Project Title:	Water Station 9 PFAS
Project Location (City or County):	Clark
Project State:	WA
Project Zip Code:	98660

Project Scope of Work-Attachment I attached hereto and incorporated by reference.

3.3. CONTRACT COMMUNICATION

Communications regarding CONTRACT performance is delegated by each party to its Contract Manager. Either party may change its Contract Manager by express notice to the other party. Either party may identify on an as needed basis an alternate Contract Manager to serve during the stated temporary absence of its primary Contract Manager. Notices between the parties regarding Contract performance must be provided by written communication to the other party's Contract Manager. Written communication includes email but not voice mail. Notices are presumed received by the other party's Contract Manager upon evidence of delivery between the hours of 8:00 am to 5:00 pm except for state holidays and weekends.

3.4. LOAN INFORMATION

Loan Amount:	$12,000,000.00
Loan Fee (Included in loan amount if applicable):	$0.00
Principal Loan Forgiveness %:	35%
Loan Term:	24 years
Interest Rate:	1.75%
Payment Month(s):	October 1st Annually
Earliest Date for Construction Reimbursement:	One year prior to contract execution
Time of Performance:	48 months from Contract start date (date of last signature) to Project Completion date.
Notice to Proceed:	18 months from Contract start date (date of last signature)

3.5. FUNDING INFORMATION

Total Funds from BORROWER:	$34,010,882.00
Source(s) of Funds from Borrower, with assigned amounts per source:	City of Vancouver Water Construction Fund
Total State Funds:	To be determined
Total Amount of Federal Award (as applicable):	To be determined
Total Amount of Loan:	$12,000,000.00
Federal Award Date:	To be determined
Federal Award ID # (FAIN):	To be determined
Amount of Federal Funds Obligated by this Action:	To be determined

3.6. SPECIAL TERMS AND CONDITIONS

N/A

4. GENERAL TERMS AND CONDITIONS

DRINKING WATER STATE REVOLVING FUND (MUNICIPAL)

4.1. AUTHORITY

Acting under the authority of Section 1452 of the Safe Drinking Water Act (***SDWA***) Section 130, RCW 39.34, RCW 43.70.040, and RCW 70.119A.170 the Washington State Department of Health (***DOH***) has awarded BORROWER identified on the Face Sheet of this CONTRACT a Drinking Water State Revolving Fund Loan (***LOAN***) for the PROJECT defined on the Face Sheet of this CONTRACT. Under this CONTRACT, BORROWER is a sub-recipient of funds provided by the United States Environmental Protection Agency (***EPA***), CFDA Number 66.468, Safe Drinking Water State Revolving Fund.

In some CONTRACT attachments, DOH is referred to as "Lender" and BORROWER is referred to as "Contractor." DOH and BORROWER are individually a ***"party"*** and, collectively, the ***"parties."***

4.2. FULL AGREEMENT

This CONTRACT contains all the terms and conditions agreed upon by the parties and is the full agreement of the parties. No other understandings, oral or otherwise, regarding the subject matter of this CONTRACT will be deemed to exist or to bind any of the parties hereto.

4.3. ORDER OF PRECEDENCE

In the event of an inconsistency in this CONTRACT, unless otherwise provided herein, the inconsistency shall be resolved by giving precedence in the following order: The order of precedence for terms and conditions under categories B and C is subject to the proviso that when a contract term or condition appears in more than one contract document, the more specific contract term or condition shall control if the different contract provisions cannot be harmonized.

A. Applicable , state and federal statutes
B. Applicable local, state, and federal regulations
C. CONTRACT amendments (if any)
D. The Declarations Page of the CONTRACT
E. The General Terms and Conditions of the CONTRACT
F. Attachment I of the CONTRACT
G. Attachment II of the CONTRACT
H. Attachment III of the CONTRACT
I. Attachment IV of the CONTRACT
J. Attachment V of the CONTRACT
K. Attachment VI of the CONTRACT
L. Attachment VII of the CONTRACT

4.4. LOAN AMOUNT

DOH, using funds from the Drinking Water Assistance Account, will loan BORROWER a sum not to exceed the amount shown as "Loan Amount" in the Declarations (***LOAN AMOUNT***). The LOAN AMOUNT will not exceed 100% of the actual eligible PROJECT costs (***ELIGIBLE PROJECT COSTS***). The parties understand and agree that the LOAN AMOUNT does not include the LOAN FEE which will be charged in accordance with Section 4.5 (Loan Fee) below.

4.5. LOAN FEE

If DOH assessed a "Loan Fee" in the Declarations (***LOAN FEE***), then: (a) the LOAN FEE will be the LOAN FEE shown in the Declarations; (b) the LOAN FEE will be 1% of the loan request; and (c) the LOAN FEE will not be

reduced, regardless of the final LOAN AMOUNT at PROJECT completion. If the LOAN FEE applies and the total LOAN AMOUNT is increased through CONTRACT amendment, then DOH will assess an additional LOAN FEE equal to 1% of the additional LOAN AMOUNT. LOAN FEES are non-refundable.

4.6. LOAN TERM

Unless changed through a CONTRACT amendment, the LOAN TERM will not exceed the period of time shown in the Declarations. The repayment period for DOH subsidized loans is 24 years from this CONTRACT's start date. The repayment period for non-DOH subsidized loans is 20 years from this CONTRACT's start date.

4.7. INTEREST RATE

The interest rate is stated in the Declarations. Interest is per annum on the outstanding principal balance and starts to accrue from the date DOH releases any or all of the Loan Amount (***LOAN FUNDS***) to BORROWER in accordance with applicable law and PROGRAM AND DOH policies.

4.8. LOAN FORGIVENESS

If the LOAN qualifies for LOAN Forgiveness, then the percent of the LOAN balance that DOH will forgive at PROJECT completion is stated in the Declarations. DOH calculates the amount forgiven when DOH approves the BORROWER's Project Completion Report. The amount forgiven will be based on either the LOAN AMOUNT or BORROWER's ELIGIBLE PROJECT COSTS, whichever is less, and accrued interest.

4.9. RELEASE OF LOAN FUNDS AND REQUIRED DOCUMENTATION

DOH will release LOAN FUNDS to BORROWER to reimburse BORROWER for ELIGIBLE PROJECT COSTS. To request reimbursement, BORROWER must submit a signed and completed invoice using a form provided by DOH. The invoice must reference the PROJECT activity performed, and include supporting documentation such as bills, invoices, receipts, and documentation of compliance with CONTRACT requirements as requested by DOH. The invoice must be signed by an official of BORROWER with authority to bind BORROWER.

Invoices must also include a report of the progress of the PROJECT made since the last invoice, and the PROJECT status to date. DOH will not release funds until the PROJECT status report and documentation are approved by DOH. Approval will not be unreasonably withheld or delayed. After approving the invoice, documentation, and PROJECT status report, DOH will release funds to BORROWER within 30 days, if BORROWER is not in alleged or actual breach of any CONTRACT with a Washington state agency.

DOH will withhold 10% of LOAN FUNDS until DOH confirms that BORROWER has successfully completed all steps for PROJECT COMPLETION. The 10% holdback will be available to BORROWER as part of the last LOAN disbursement.

4.10. TIME OF PERFORMANCE

BORROWER will begin the activities in the PROJECT within 30 calendar days of the CONTRACT start date. BORROWER will issue a 'Notice to Proceed', after the formal award of a construction contract, within 18 months of the CONTRACT start date.

BORROWER must reach PROJECT COMPLETION within the Time of Performance set forth in the Declarations (***TIME OF PERFORMANCE***). If there are extenuating circumstances, BORROWER may request, in writing, at least 90 calendar days prior to the PROJECT COMPLETION that DOH extend the deadline for PROJECT COMPLETION. At its discretion, DOH may issue an extension. DOH's decision is final and not subject to the dispute clause.

If BORROWER does not meet the requirements of this Section, it is a material breach of CONTRACT, and DOH may terminate or suspend this CONTRACT immediately and for cause if DOH so desires.

4.11. PROJECT COMPLETION AMENDMENT AND THE PROJECT COMPLETION REPORT

The PROJECT Completion Amendment determines the final LOAN AMOUNT and LOAN TERM. When activities in the PROJECT are complete, BORROWER will start the process for the PROJECT Completion Amendment by sending DOH the PROJECT Completion Report. In the PROJECT Completion Report, BORROWER will provide the following information to DOH:

A. A statement of the actual dollar amount spent, from all fund sources, to complete the PROJECT.
B. A statement that all ELIGIBLE PROJECT COSTS have been incurred. Costs are incurred when goods and services are received and/or contracted work is performed.
C. Evidence showing BORROWER'S compliance with financial the audit requirements of this CONTRACT.
D. An invoice for the remaining ELIGIBLE PROJECT COSTS.
E. Documentation of BORROWER's compliance with National Historic Preservation Act of 1966, 54 U.S.C. Subtitle III, Public Law 89-665, as amended (including, without limitation, by Public Law 96-515) (***NHPA*** or ***National Historic Preservation Act***).

4.12. LOAN PAYMENTS

BORROWER must begin repaying the LOAN no later than 1 year after the CONTRACT start date. Payments are due on the first day of the month(s) shown as the PAYMENT MONTH(S) in the Declarations. Payments are principal and interest accrued up to the PAYMENT MONTH(S).

BORROWER can repay in full the LOAN balance, including fees and repayment of LOAN FUNDS for ineligible project costs (if any), at any time or make accelerated payments without penalty. The final payment must be on or before the end of the LOAN TERM. Additionally, BORROWER must either have a dedicated general ledger account for the LOAN AMOUNT or a dedicated bank account for the LOAN AMOUNT to ensure that there is no co-mingling of the LOAN AMOUNT with other municipality resources.

4.13. DEDICATED ACCOUNT FOR LOAN PAYMENTS

Within 30 calendar days of the CONTRACT start date, BORROWER must provide DOH with documentation that BORROWER has an account at an FDIC-insured institution dedicated for repaying the LOAN. The funds and interest accrued in the account must be used solely to make LOAN payments.

During the LOAN TERM, BORROWER will ensure that by September 30th of repayment years, the dedicated account's balance is equal to one years' payment of principal, fees, and interest on the LOAN.

4.14. LOAN DEFAULT

DOH must receive BORROWER'S payment within 30 calendar days of the due date. Late payments are delinquent and assessed a monthly penalty on the 1st day past the due date. The penalty will be at the rate set forth by DOH that accords with applicable law but which the parties agree and understand may be 1% of the late payment amount per month. Penalty and fees accrue interest at the rate stated as LOAN INTEREST in the Declarations.

DOH may notify any other entity, creditors, or potential creditors of BORROWER's delinquency. BORROWER is responsible for all attorney fees and costs incurred by DOH in any action taken to enforce its rights under this Section, including in any alternative dispute resolution proceeding.

4.15. LOAN SECURITY

"Loan Security" (***LOAN SECURITY***) is only required if identified in the Declarations. If LOAN SECURITY is required under the CONTRACT, then:

(a) BORROWER will assist DOH in completing and filing all financing statements or other collateral documentation reasonably required by DOH; and
(b) BORROWER will execute all assignments, security agreements, and financing statements necessary to establish, perfect, and maintain the security interests of DOH.

Nothing in this Section releases BORROWER from the obligation to make LOAN PAYMENTS when due, and to adjust rates, fees, or surcharges as necessary to meet its obligations under this CONTRACT.

Notwithstanding this, in its sole discretion and if allowed under the EPA regulations relevant to this Contract, DOH may subordinate its LOAN security to BORROWER's obligations under existing or future bonds and notes.

4.16. AMENDMENTS, MODIFICATIONS, ASSIGNMENTS, AND WAIVERS

Any amendments, modifications, assignments, and/or waivers to any of the terms and conditions of this CONTRACT supersede those terms as found in the original CONTRACT and will not be binding on the parties unless they are in writing and signed by representatives authorized to bind each of the parties. Only the authorized representative or their designee (where delegation is made prior to action) has the express, implied, or apparent authority to enter into, alter, amend, assign, modify, or waive any terms, clauses, or conditions of this CONTRACT. Additionally, neither this CONTRACT nor any Claim arising under this CONTRACT, will be transferred or assigned by the BORROWER without prior written consent of DOH.

Neither this CONTRACT nor any Claim arising under it may be transferred or assigned by BORROWER without DOH's prior written consent. During the LOAN TERM, DOH must approve in advance, any change in ownership of the water system(s) improved with LOAN FUNDS. DOH may require the LOAN, including LOAN FEES and/or ineligible project costs (if any) be paid in full as a condition of approval.

Nothing in this CONTRACT (including, without limitation, terms, conditions, assurances, and certifications) may be waived and/or modified unless approved in writing and signed by an authorized representative of DOH. No waiver of any default or breach is implied from any failure to take action upon such default or breach if the default of breach persists or repeats. Waiver of any default or breach will not be deemed to be a waiver of any subsequent default or breach.

4.17. BUILD AMERICA, BUY AMERICA (IF APPLICABLE)

None of the LOAN FUNDS under this CONTRACT will be used for the construction, alteration, maintenance, or repair of a public water system or treatment works unless all of the iron and steel, manufactured products, and construction materials used in the project are produced in the United States including, without limitation, iron and steel, manufactured products, and construction materials in accordance with the Build America, Buy America, Pub. L. No. 117-58, §§ 70901-52 (***BABA***) Requirements and/or any successor legislation. BORROWER hereby represents and warrants to and for the benefit of DOH and any other funding authority and/or source that BORROWER understands this obligation and the requirements of BABA and will use the LOAN FUNDS in accordance with the requirements set forth in this Section.

Notwithstanding this, an authorized representative of DOH may waive this requirement in writing if:

A. Compliance would be inconsistent with the public interest; or
B. The particular products are not produced in the United States in sufficient and reasonably available quantities and are not of a satisfactory quality; or
C. Inclusion of products produced in the United States will increase the cost of the overall project by more than 25%; or
D. A waiver is approved by the Environmental Protection Agency (***EPA***).

BORROWER must submit any such waiver request to DOH, which will then submit the waiver request to EPA. The full text of the Build America, Buy America provision can be found under The Infrastructure Investment and Jobs Act (***IIJA***), Pub. L. No. 117-58, which includes BABA.

4.18. ATTORNEYS' FEES

Unless expressly permitted under another Section of the CONTRACT, each party agrees to bear its own attorneys' fees and costs for litigation or other action brought to enforce the CONTRACT terms and conditions.

4.19. PROHIBITION AGAINST PAYMENT OF BONUS AND COMMISSION

LOAN FUNDS provided under this CONTRACT will not be used in payment of any bonus or commission for the purpose of obtaining approval of the loan application or any other approval under this CONTRACT. This Section does not prohibit paying reasonable fees for *bona fide* technical consultants, managerial, or other such services, if payment is for ELIGIBLE PROJECT COSTS. For the avoidance of doubt, no actual solicitation costs can be paid for

LOAN FUNDS received under this CONTRACT.

4.20. COMPLIANCE

BORROWER will comply with all applicable federal, state, and local laws, requirements, codes, regulations, policies, and ordinances of local and state and federal governments, as now or hereafter amended (including, without limitation, for the design, implementation, and administration) of the PROJECT and this CONTRACT, including, without limitation, those stated in the CONTRACT attachments. BORROWER will provide DOH with documentation of compliance as soon as practicable if requested by DOH or its agents.

In the event of BORROWER's alleged or actual noncompliance with any part of this CONTRACT, DOH may suspend all or part of the CONTRACT, withhold payments, and/or prohibit BORROWER from incurring additional obligations of LOAN FUNDS during the investigation and pending corrective action by BORROWER, or a decision by DOH to terminate or suspend the CONTRACT.

4.21. CONFIDENTIALITY/SAFEGUARDING OF INFORMATION

A. "Confidential Information" as used in this Section includes:

i. All material provided to the BORROWER by DOH that is designated as "confidential" by DOH; and

ii. All material produced by the BORROWER that is designated as "confidential" by DOH; and

iii. All Personal Information in the possession of the BORROWER that may not be disclosed under state or federal law.

B. The BORROWER will comply with all state and federal laws related to the use, sharing, transfer, sale, or disclosure of Confidential Information. The BORROWER will use Confidential Information solely for the purposes of this CONTRACT and will not use, share, transfer, sell, or disclose any Confidential Information to any third party except with the prior written consent of DOH or as may be required by law. The BORROWER will take all necessary steps to assure that Confidential Information is safeguarded to prevent unauthorized use, sharing, transfer, sale, or disclosure of Confidential Information or violation of any related state or federal laws. Upon request, the BORROWER will provide DOH with its policies and procedures on confidentiality. DOH may require changes to such policies and procedures as they apply to this CONTRACT whenever DOH reasonably determines that changes are necessary to prevent unauthorized disclosures. The BORROWER will make the changes within the time period specified by DOH. Upon request, the BORROWER will immediately return to DOH any Confidential Information that DOH reasonably determines has not been adequately protected by the BORROWER against unauthorized disclosure.

C. Unauthorized Use or Disclosure. The BORROWER will notify DOH within 5 working days of BORROWER's discovery of any unauthorized use or disclosure of any confidential information and will take necessary steps to mitigate the harmful effects of such use or disclosure.

4.22. DISPUTES

Except as otherwise provided in this CONTRACT, when a dispute arises between the parties that cannot be solved by direct negotiation (***Dispute***), either party may request a Dispute hearing with the Director of the Office of Drinking Water (***Director***), who may designate a neutral person to decide the Dispute. The parties will be equally responsible for any reasonable costs and fees incurred by the neutral person.

The request for a a Dispute hearing must:

A. Be in writing;
B. State the disputed issues;
C. State the relative positions of the parties;
D. State BORROWER's name, address, and CONTRACT number involved in or related to the Dispute;
E. Provide contact information for the requester's representative; and
F. Be mailed to the Director and the other party's (***Respondent's***) Contract Manager within 3 working days after the parties agree that they cannot resolve the Dispute.

The Respondent will send a written answer to the requestor's statement to both the Director or the Director's designee and the requestor within 5 working days.

In the alternative, the parties can agree to submit a mutual request to the Director, which should include each party's response to the other party's characterization of the Dispute.

The Director or Director's designee will review the written statements and reply in writing to both parties within 10 working days. The Director or Director's designee may extend this period if necessary by notifying the parties. The decision on the dispute is non-binding and will not be admissible in any succeeding judicial or quasi-judicial proceeding.

This non-binding Dispute process must precede any action in a judicial or quasi-judicial tribunal. Nothing in this CONTRACT limits the parties from using any mutually acceptable alternate dispute resolution (***ADR***) method in addition to or instead of the Dispute hearing procedure outlined above.

4.23. ELIGIBLE PROJECT COSTS

BORROWER will comply with all obligations set forth under this CONTRACT including, without limitation, Attachment VI-DWSRF Eligible Project Costs and is responsible for any audit exceptions or disallowed costs incurred by its own organization or that of its contractors and/or subcontractors.

The purchase of any land necessary for the PROJECT must be included in the PROJECT and be documented with an appraisal or equivalent market evaluation, if approved by DOH, and a valid purchase and sale agreement.

Construction expenses incurred after the date shown as earliest date for construction reimbursement in the Declarations are eligible for reimbursement. Requests for reimbursements for costs related to construction activities will not be accepted until BORROWER has met the following conditions:

A. Completed the State Environmental Review Process (SEPA Review under RCW 43.21C);
B. Complied with all provisions of the National Historic Preservation Act;
C. Complied with Prevailing Wage requirements;
D. Received approval from DOH of the PROJECT report and related construction documents for all applicable activities described in the PROJECT; and
E. Complied with any other LOAN conditions required by DOH.

For the avoidance of doubt, BORROWER cannot use LOAN FUNDS for any expenses charged by BORROWER against any other contract, subcontract, or source of funds.

If DOH reimburses BORROWER for costs that are later determined by DOH to be ineligible, BORROWER must repay these funds to DOH no later than when the BORROWER returns the PROJECT Completion Amendment to DOH. Prior to final completion, DOH may withhold payment for such costs as allowed under Section 4.36 (Recapture). Any such repayment may be subject to interest on any remaining balance, at the rate determined by state regulations and as allowed under state and federal law.

4.24. FALSE, INCORRECT, OR INCOMPLETE INFORMATION OR CLAIM

BORROWER warrants that BORROWER has not and will not submit to DOH any information that is false, incorrect, or incomplete. BORROWER understands and agrees that providing false, fictitious, or misleading information to a state agency or otherwise receiving and attesting to PROGRAM benefits that you are not entitled to is a violation of applicable state law. Such violations may be a criminal violation under state law, including, without limitation, RCW 9A.56.020 (Theft defined), RCW 9A.56.030 (Theft in the 1st degree), RCW 9A.56.040 (Theft in the 2nd degree), or other applicable statutes. Such violations for the receipt and disbursements of LOAN FUNDS may also result in civil penalties or administrative fines. The parties understand and agree that DOH may pursue all applicable remedies for violations by BORROWER under this Section.

4.25. FINANCIAL AUDIT

DOH may require BORROWER to obtain an audit of this PROJECT conforming to Generally Accepted Accounting Principles (***GAAP***) promulgated by the Financial Accounting Standards Board (***FASB***). BORROWER will maintain its records and accounts in accordance with GAAP and other applicable FASB requirements to facilitate any audit under this CONTRACT. BORROWER is responsible for correcting any audit findings. BORROWER is responsible for any audit findings incurred by its own organization and/or its contractors and/or subcontractors. DOH reserves the right to recover from BORROWER all disallowed costs and INELEGIBLE PROJECT COSTS resulting from an audit.

Audits must include a report on compliance, including an opinion (or disclaimer of opinion) about whether the BORROWER is in compliance with applicable law, regulations, and requirements of this CONTRACT. Any such audit report will also highlight any issues that could have a direct and material effect on DOH.

BORROWER will send a copy of any required audit per 2 CFR §200.512 to the DOH Contract Manager, no later than 9 months after the end of BORROWER's fiscal year. BORROWER must send any audit corrective action plan for audit findings and a copy of the management letter, within 3 months of the audit report.

4.26. FRAUD AND OTHER LOSS REPORTING

BORROWER will report in writing all known or suspected fraud or other loss of any funds or other property furnished under this CONTRACT immediately or as soon as practicable to the DOH Representative identified on the Face Sheet.

4.27. GOVERNING LAW AND VENUE

This CONTRACT will be construed and interpreted according to the laws of the State of Washington, and the venue of any action brought under the CONTRACT will be in the Superior Court for Thurston County. If any provision of this CONTRACT violates any statute or rule of law of the State of Washington, it will be considered modified to conform to that statute or rule of law.

4.28. HISTORICAL AND CULTURAL REQUIREMENTS

BORROWER will not conduct or authorize destructive PROJECT planning activities before completing the requirements under Section 106 of the National Historic Preservation Act. BORROWER will not begin construction activities, ground disturbance, or excavation of any sort, until BORROWER has complied with all requirements of the NHPA.

If historical or cultural artifacts are discovered during the PROJECT, BORROWER will immediately stop construction and implement reasonable measures to protect the discovery site from further disturbance, take reasonable steps to ensure confidentiality of the discovery site, restrict access to the site, and notify the concerned tribe's cultural staff or committee, Tribal Historical Preservation Officer (***THPO***), DOH Contract Manager, and the State's Historical Preservation Officer (***SHPO***) at the Washington State Department of Archaeology and Historic Preservation (***DAHP***). If human remains are uncovered, BORROWER will report the presence and location of the remains to the local coroner and law enforcement immediately, then contact the concerned tribe's cultural staff or committee, DOH Contract Manager, and DAHP.

BORROWER is legally and financially responsible for compliance with all laws, regulations, and agreements related to the preservation of historical or cultural sites and artifacts and will hold harmless the State of Washington and DOH in relation to any claim related to historical or cultural sites discovered, disturbed, or damaged as a result of BORROWER'S and BORROWER's contractors' and/or subcontractors' activities.

BORROWER will include the requirements of this Section in all contracts for work or services related to the PROJECT. BORROWER will require that bid documents include an inadvertent discovery plan that meets the requirements of this Section.

4.29. INDEMNIFICATION

To the fullest extent permitted by law, BORROWER will indemnify, defend, and hold harmless DOH, the State of Washington, agencies of the State, and all officials, agents, employees, and representatives of the State, from and against all Claims arising out of or incident to BORROWER'S or any BORROWER'S contractors' and/or subcontractors' performance or failure to perform the CONTRACT (including, without limitation, injury or death).

BORROWER'S obligation to indemnify, defend, and hold harmless includes any Claim by any and all of BORROWER's agents, employees, representatives, and/or subcontractor(s) (and their agents, employees, and representatives, to the extent that BORROWER is using any contractor and/or subcontractor for the Project). For the avoidance of doubt, BORROWER's obligations under this Section will not be eliminated or reduced by any actual or alleged concurrent negligence of DOH, the State of Washington, agencies of the State, or any of their officials, agents, employees, and/or representatives.

BORROWER'S obligation to indemnify, defend, and hold harmless DOH and the State of Washington includes any Claim by BORROWER'S agents, employees, officers, contractors, subcontractors, and/or contractor or subcontractor employees. Notwithstanding this, the BORROWER's obligations will not include such Claims that may be caused by the sole negligence of the State and its agencies, officers, officials, agents, and/or employees.

BORROWER waives immunity under RCW 51 to the extent it is required to indemnify, defend, and hold harmless the State of Washington and its agencies, officers, officials agents, and/or employees.

4.30. INDEPENDENT CAPACITY OF THE BORROWER

The parties intend that an independent contractor relationship will be created by this CONTRACT. The BORROWER and its employees, officers, representatives, and/or agents performing under this CONTRACT are not employees or agents of the State of Washington or DOH. The BORROWER will not hold itself out as or claim to be an officer or employee of DOH or of the State of Washington by reason hereof nor will the BORROWER make any claim of right, privilege, or benefit which would accrue to such officer or employee under law. Conduct and control of the work associated with the PROJECT will be solely with the BORROWER.

4.31. INTERNAL CONTROLS

BORROWER must designate one person as fiscal coordinator of the LOAN. BORROWER must maintain effective internal controls and comply with standards adopted by FASB.

4.32. INSURANCE COVERAGE REQUIREMENTS

A. Insurance Requirements for Reimbursable Activities

The BORROWER will have insurance coverage that is substantially similar to the coverage described in Section 4.28(B) below for all periods in which BORROWER performed work for which it will seek reimbursement. The intent of the required insurance is to protect the State of Washington should there be any Claims, suits, actions, costs, damages, or expenses arising from any loss or negligent or intentional act or omission of the BORROWER or contractor and/or subcontractor, or agents of any of them, while performing under the terms of this CONTRACT.

B. Additional Insurance Requirements During the Term of the CONTRACT

i. The BORROWER shall provide proof to DOH of insurance coverage that shall be maintained in full force and effect, as indicated below, and shall submit renewal certificates not less than 30 calendar days prior to expiration of each policy required under this Section:

a. Commercial General Liability Insurance Policy. Provide a Commercial General Liability Insurance Policy, including contractual liability, written on an occurrence basis, in adequate quantity to protect against legal liability arising out of or related to this CONTRACT but in no less than $1,000,000 per occurrence. Additionally, the BORROWER is responsible for ensuring that any subcontractor provide adequate insurance coverage for the activities arising out of or related to subcontracts (if any). Commercial General Liability Insurance coverage shall be maintained in full force and effect during the term of this CONTRACT and throughout the Commitment Period.

b. Property Insurance. The BORROWER shall keep the property insured in an amount sufficient to permit such insurance to be written at all times on a replacement cost basis. Such insurance shall cover the following hazards, as applicable:

1. Loss or damage by fire and such other risks;
2. Loss or damage from leakage or sprinkler systems now or hereafter installed in any building on the premises;
3. Loss or damage by explosion of steam boilers, pressure vessels, oil or gasoline storage tanks, or similar apparatus now or hereafter installed in a building or building on the premises.

This property insurance coverage must be maintained in full force and effect throughout the term of this CONTRACT and the Commitment Period.

c. Professional Liability, Errors, and Omissions Insurance. If BORROWER will be providing any professional services to be reimbursed under this CONTRACT, the BORROWER shall maintain Professional Liability or Errors and Omissions Insurance with minimum limits of no less than $1,000,000 per occurrence to cover all activities by the BORROWER and licensed staff employed or under contract to the BORROWER. The

State of Washington, the Department of Health, its agents, officers, and employees need not be named as additional insureds under this policy. This insurance must be maintained throughout the term of the CONTRACT and Commitment Period. BORROWER will require that any subcontractors providing professional services that are reimbursable under this CONTRACT maintain Professional Liability or Errors and Omissions Insurance at the coverage levels set forth in this subsection.

d. Fidelity Insurance. Every officer, director, employee, or agent who is authorized to act on behalf of the BORROWER for the purpose of receiving or depositing funds into program accounts or issuing financial documents, checks, or other instruments of payment for program costs shall be insured to provide protection against loss where:

1. The amount of fidelity coverage secured pursuant to this CONTRACT shall be $2,000,000 or the highest of planned reimbursement for the CONTRACT period, whichever is lower. Fidelity insurance secured pursuant to this paragraph shall name the State of Washington, the Department of Health, its agents, officers, and employees as beneficiary.

2. Subcontractors that receive $10,000 or more per year in funding through this CONTRACT shall secure fidelity insurance as noted above. Fidelity insurance secured by subcontractors pursuant to this paragraph shall name the BORROWER and the BORROWER's fiscal agent (if any) as beneficiary.

3. Fidelity Insurance coverage shall be maintained in full force and effect from the start date of this CONTRACT until BORROWER has submitted a Closeout Certification Form, subject to the following: Fidelity Insurance must be issued on either (a) a "loss sustained" basis; or (b) if issued on a "loss-discovered" basis, provide coverage for at least 6 months following the date of BORROWER's receipt of the Closeout Certification Form.

4. Fidelity Insurance for Organizations with No Employees.

The requirement for fidelity insurance described in that term is hereby waived as long as the BORROWER does not have any employees (including, but not limited to, volunteers, work-study placements, and interns).

ii. The insurance required shall be issued by an insurance company authorized to do business within the State of Washington. Except as otherwise set forth in this Section, each insurance policy shall name "the State of Washington, the Department of Health, and their agents, officers, and employees" as additional insureds on all policies. All policies shall be primary to any other valid and collectable insurance. The BORROWER shall instruct the insurers to give DOH 30 calendar days' advance notice of any insurance cancellation or modification.

iii. The BORROWER shall submit to DOH within 15 calendar days of the CONTRACT start date, a certificate of insurance which outlines the coverage and limits defined in this Section including, without limitation, the type of insurance coverage under the policy, the designated beneficiary, who is covered, the amounts, the period of coverage, and that DOH will be provided 30 days' advance written notice of cancellation. During the term of the CONTRACT, the BORROWER shall submit renewal certificates not less than 30 calendar days prior to expiration of each policy required under this Section. Additionally, BORROWER shall provide copies of insurance instruments or certifications, at DOH's request and until 6 months after DOH has received a Closeout Certification Form from BORROWER. Copies of such insurance instruments and certifications will be provided within 15 calendar days of DOH's request unless otherwise agreed to by the parties.

iv. BORROWER and Local Governments that Participate in a Self-Insurance Program.

Self-Insured/Liability Pool or Self-Insured Risk Management Program – With prior approval from DOH, the BORROWER may provide the coverage above under a self-insured/liability pool or self-insured risk management program. In order to obtain permission from DOH, the BORROWER will provide: (1) a description of its self-insurance program and (2) a certificate and/or letter of coverage that outlines coverage limits and deductibles. All self-insured risk management programs or self-insured/liability pool financial reports must comply with GAAP and adhere to accounting standards promulgated by: 1) Governmental Accounting Standards Board (GASB), 2) FASB, and 3) the Washington State Auditor's annual instructions for financial reporting. BORROWER's participating in joint risk pools will maintain sufficient documentation to support the aggregate claim liability information reported on the balance sheet. The State of Washington, the Department of Health, and their agents, officers, and employees need not be named as additional insured under a self-insured property/liability pool, if the pool is prohibited from naming third parties as additional insured.

BORROWER will provide annually to DOH a summary of coverages and a letter of self- insurance, evidencing continued coverage under BORROWER's self-insured/liability pool or self-insured risk management program. Such annual summary of coverage and letter of self-insurance will be provided on the anniversary of the start date of this CONTRACT.

4.33. INDUSTRIAL INSURANCE COVERAGE

In addition to the requirements set forth in Section 4.[31] (Insurance Coverage Requirements) above, BORROWER understands and agrees that BORROWER and its contractors and/or subcontractors (if any) will comply with the applicable parts of RCW 51 RCW (Industrial Insurance). If BORROWER and/or any of its contractors and/or subcontractors (if any) fail to provide industrial insurance coverage or fail to pay premiums or penalties on behalf of its employees as required by law, DOH may collect from BORROWER the full amount payable to the Industrial Insurance Accident Fund. DOH may deduct the amount owed by BORROWER and/or any of its contractors (if any) to the accident fund from the amount payable to BORROWER by DOH under this CONTRACT and transmit the deducted amount to the Washington State Department of Labor and Industries (***L&I***) Division of Insurance Services. This provision does not waive any of L&I's rights to collect from the BORROWER and/or any of its contractors (if any).

4.34. LAWS

The BORROWER will comply with all applicable laws, ordinances, codes, regulations, and policies of local, state, and federal governments, as now or hereafter amended.

4.35. LICENSING, ACCREDITATION, AND REGISTRATION

The BORROWER will comply with all applicable local, state, and federal licensing, accreditation, and registration requirements or standards necessary for the performance of this CONTRACT.

4.36. LITIGATION

BORROWER warrants that there is no threatened or pending litigation, investigation, or legal action before any court, arbitrator, or administrative agency that, if adversely determined against BORROWER, would have a materially adverse effect on BORROWER's ability to repay the LOAN AMOUNT. BORROWER agrees to promptly notify DOH if any above-referenced actions become known to BORROWER during the pendency of the CONTRACT.

4.37. NONCOMPLIANCE WITH NONDISCRIMINATION LAWS

A. During the performance of this CONTRACT, the BORROWER, including any contractor and/or subcontractor, will comply with all federal, state, and local nondiscrimination laws, regulations, and policies including, without limitation, not discriminate on the bases enumerated at RCW 49.60.530(3). In addition, BORROWER, including any contractor and/or subcontractor, will give written notice of this nondiscrimination requirement to any labor organizations with which BORROWER, or contractor and/or subcontractor, has a collective bargaining or other agreement. The LOAN FUNDS will not be used to fund religious worship, exercise, or instruction. No person will be required to participate in any religious worship, exercise, or instruction in order to have access to the facilities funded by this CONTRACT.

B. Obligation to Cooperate. BORROWER, including any contractor and/or subcontractor, shall cooperate and comply with any Washington state agency investigation regarding any allegation that BORROWER, including any contractor and/or subcontractor, has engaged in discrimination prohibited by this CONTRACT pursuant to RCW 49.60.530(3).

C. Default. Notwithstanding any provision to the contrary, DOH may suspend BORROWER, including any contractor and/or subcontractor, upon notice of a failure to participate and cooperate with any state agency investigation into alleged discrimination prohibited by this CONTRACT, pursuant to RCW 49.60.530(3). Any such suspension will remain in place until DOH receives notification that BORROWER, including any contractor and/or subcontractor, is cooperating with the investigating state agency. In the event BORROWER, or contractor and/or subcontractor, is determined to have engaged in discrimination identified at RCW 49.60.530(3), DOH may terminate this CONTRACT in whole or in part, and BORROWER, contractor, subcontractor, or any or all, may be referred for debarment as provided in RCW 39.26.200. BORROWER or contractor or subcontractor may be given a reasonable time in which to cure this noncompliance, including implementing conditions consistent with any court-ordered injunctive relief or settlement agreement. Failure by BORROWER to carry out these requirements is a material

breach of this CONTRACT and subject to termination for cause.

4.38. PAY EQUITY

The BORROWER will ensure that "similarly employed" individuals in its workforce are compensated as equals, consistent with the following:

A. Employees are "similarly employed" if the individuals work for the same employer, the performance of the job requires comparable skill, effort, and responsibility, and the jobs are performed under similar working conditions. Job titles alone are not determinative of whether employees are similarly employed;

B. BORROWER may allow differentials in compensation for its workers if the differentials are based in good faith and on any of the following:

i. A seniority system; a merit system; a system that measures earnings by quantity or quality of production; a bona fide job-related factor or factors; or a bona fide regional difference in compensation levels; and/or

ii. A bona fide job-related factor or factors may include, but not be limited to, education, training, or experience that is: (a) consistent with business necessity; (b) not based on or derived from a gender-based differential; and (c) accounts for the entire differential; and/or

iii. A bona fide regional difference in compensation level must be: (a) Consistent with business necessity; (b) not based on or derived from a gender-based differential; and (c) account for the entire differential.

This CONTRACT may be terminated by DOH, if DOH or the Department of Enterprise Services determines that the BORROWER is not in compliance with this Section.

4.39. POLITICAL ACTIVITIES

Political activity of BORROWER employees and officers are limited by the Campaign Disclosure and Contribution provisions of RCW 42.17a and the Federal Hatch Act, 5 USC 1501 - 1508.

No funds may be used for working for or against ballot measures or for or against the candidacy of any person for public office.

4.40. PREVAILING WAGE

BORROWER will assure that all contractors and subcontractors performing work funded through this CONTRACT comply with prevailing wage laws by paying the higher of state or federal prevailing wages. BORROWER is legally and financially responsible for compliance with the prevailing wage requirements. The BORROWER certifies that all contractors and subcontractors performing work on the Project shall comply with State Prevailing Wages on Public Works, RCW 39.12, as applicable to the Project funded by this CONTRACT, including, but not limited to, the filing of the "Statement of Intent to Pay Prevailing Wages" and "Affidavit of Wages Paid" as required by RCW 39.12.040. The BORROWER shall maintain records sufficient to evidence compliance with RCW 39.12 and shall make such records available for DOH's review upon request. BORROWER is advised to consult the United States Department of Labor and/or the Industrial Statistician at the Washington State Department of Labor and Industries to determine whether and what federal and state prevailing wages must be paid. DOH is not responsible for determining whether or what prevailing wage applies to this Project and/or for any prevailing wage payments that may be required by law.

4.41. PROCUREMENT

BORROWER will comply with all procurement policies, procedures, and requirements for contracting and/or subcontracting for the PROJECT and for obtaining PROJECT-related goods and services funded through this CONTRACT. BORROWER and its contractors and/or subcontractors must receive approval from DOH before entering into any sole source contract or contract where only one bid or proposal was received if the value of the contract is likely to exceed $5,000. BORROWER'S request for DOH approval must include a copy of the proposed contract(s), all related procurement documents, and justification for non-competitive procurement.

BORROWER will ensure that all contractors, subcontractors, engineers, vendors, and any other entity for work or services listed in the PROJECT will insert in full, in any contract, the labor standards provisions in Attachment VIII-Labor Standard Provisions for Subrecipients That Are Governmental Entities.

BORROWER will maintain records to verify compliance with procurement requirements, including, without limitation, identifying the procurement method used, the reason for selecting the contractor, the rationale used for selecting

the contract type, the reason(s) for selecting and rejecting bidders or qualified firms, and the basis for the contract cost or price.

4.42. PROHIBITION STATEMENT

Per Section 106 of the federal Trafficking Victims Protection Act, BORROWER `s contractors, subcontractors, engineers, vendors, and any other entity performing work funded by this CONTRACT must comply with and include the following terms and conditions in all contracts for work or services for the PROJECT.

> "All forms of trafficking in persons, illegal sex trade, or forced labor practices are prohibited in the performance of this award or subawards under the award, or in any manner during the period of time that the award is in effect. This prohibition applies to you as the recipient, your employees, subrecipients under this award, and subrecipients' employees."

4.43. PROJECT SIGNS

If BORROWER displays, during the TIME OF PERFORMANCE, any signs or markers identifying parties that are providing funds for the PROJECT, BORROWER must include the Washington State Department of Health Drinking Water State Revolving Fund and the Washington State Department of Health as participants in the PROJECT.

4.44. PUBLIC RECORDS ACT

Notwithstanding General Terms and Conditions Section [4.20] (Confidentiality/Safeguarding of Information), DOH is a public agency subject to the Public Records Act, RCW 42.56 (PRA). Under the PRA, all materials relating to the conduct of government or the performance of any governmental or proprietary function prepared, owned, used, or retained by DOH or its functional equivalents are considered public records. The PRA requires that public records responsive to a public records request be promptly produced unless the PRA or an "other statute" exempts such records from production. This CONTRACT is not intended to alter DOH's obligations under the PRA. The parties agree that if DOH receives a public records request for files that may include confidential information under Section [4.20] (Confidentiality/Safeguarding of Information), DOH may notify the other party of the request and of the date that the records will be released to the requester unless BORROWER obtains a court order enjoining disclosure. If the BORROWER fails to obtain the court order enjoining disclosure, DOH may release the requested information on the date specified. If the BORROWER obtains a court order from a court of competent jurisdiction enjoining disclosure pursuant to the PRA, DOH will maintain the confidentiality of the information per the court order.

4.45. PUBLICITY

BORROWER agrees not to publish or use any advertising or publicity materials in which the State of Washington or DOH's name is mentioned, or language used from which the connection with the State of Washington's or DOH's name may reasonably be inferred or implied, without the prior written consent of DOH.

4.46. RATES AND RESERVES

BORROWER will maintain reserves at a minimum as required by the Water System Plan or Small Water System Management Plan. BORROWER will timely adopt rate increases and/or capital assessments for the system's services to provide sufficient funds, along with other revenues of the system, to pay all operating expenses and debt repayments during the LOAN TERM.

4.47. RECAPTURE

In the event that the BORROWER fails to perform this CONTRACT in accordance with state or federal laws, and/or the provisions of this CONTRACT, DOH reserves the right to recapture LOAN FUNDS from BORROWER in an amount to compensate DOH for BORROWER's noncompliance with any part of this CONTRACT, in addition to any other remedies available under the CONTRACT, at law, or in equity. DOH may withhold LOAN FUNDS from BORROWER to recapture such funds. DOH's ability to recapture or seek remedies shall survive any receipt of a Closeout Certification Form or termination of this CONTRACT.

4.48. RECORDKEEPING AND ACCESS TO RECORDS

The BORROWER will maintain books, records, documents, data, and other evidence relating to this CONTRACT and performance of the services described herein, including, but not limited to, accounting procedures and practices that sufficiently and properly reflect all direct and indirect costs of any nature expended in the performance of this CONTRACT.

DOH, the Office of the State Auditor, and federal and state officials so authorized by law, regulation, or agreement (and any of their agents) will have full access and the right to examine, copy, excerpt, or transcribe, at no additional cost and at all reasonable times, any pertinent documents, papers, records, and books (including, without limitation, materials generated under the CONTRACT) of BORROWER and of persons, firms, or organizations with which BORROWER may contract, involving transactions related to this CONTRACT. BORROWER agrees to keep complete records of its compliance with this CONTRACT for a period of 6 years from the date that the debt to DOH is paid in full. This includes, but is not limited to, financial reports.

If any litigation, Claim, or audit is started before the expiration of the 6 year period, BORROWER must keep the records until all litigation, Claims, or audit findings involving the records have been resolved. These records retention requirements are in addition to the local government records retention schedules applicable to the BORROWER.

4.49. REDUCTION IN FUNDS

In the event that funds appropriated for the Project contemplated under this CONTRACT are withdrawn, reduced, or limited in any way by any funding source (including, without limitation, the federal government) during the CONTRACT period, the parties understand and agree that DOH may suspend, amend, or terminate the CONTRACT to abide by the revised funding limitations. The parties understand and agree that BORROWER will be bound by any such revised funding limitations as implemented at the discretion of DOH and, if and as requested by DOH, will meet and renegotiate the CONTRACT accordingly.

4.50. REGISTRATION WITH THE SYSTEM FOR AWARD MANAGEMENT (SAM)

BORROWER must comply with 48 CFR 52.204-7 to register with the System for Awards Management (SAM.gov). BORROWER is responsible for the accuracy and completeness of its data in the SAM database and any liability resulting from the federal government or DOH reliance on inaccurate or incomplete data in it. BORROWER must remain registered in the SAM database. BORROWER should annually review its information in SAM to ensure it is accurate and complete.

4.51. RIGHT OF INSPECTION

At no additional cost, the BORROWER will provide right of access to its facilities to DOH, or any of its officers, or to any other authorized agent or official of the State of Washington or the federal government, at all reasonable times, in order to monitor and evaluate performance, compliance, and/or quality assurance under this CONTRACT. At no additional cost, the BORROWER will also provide any documents related to this CONTRACT to DOH upon request to assist DOH in the periodic monitoring of this CONTRACT.

4.52. SEVERABILITY

The provisions of this CONTRACT are intended to be severable. If any part of this CONTRACT or part of any document incorporated by reference is found to be illegal or invalid for any reason whatsoever, it will not affect the legality or validity of the remainder of the CONTRACT. For the avoidance of doubt, other parts of this CONTRACT that can be given effect without the illegal or invalid part will remain in full force and effect.

4.53. SITE SECURITY

While on DOH premises, BORROWER, its agents, employees, and/or subcontractors will conform in all respects with physical, fire, and other security policies or regulations.

4.54. STATE PUBLIC WORKS

For work done at the cost of the State, BORROWER must comply with public works statutes RCW 39.04 and RCW 39.10, apprenticeship requirements, and the State and local building codes, as applicable. If BORROWER has questions about compliance, BORROWER will need to visit the Washington State Department of Labor & Industries Public Works Projects website for more information.

4.55. SUBCONTRACTING

A. Prior to awarding contracts and/or subcontracts, BORROWER must verify that the complete names of both the selected contractor and the owner or president are not in the Federal Excluded Parties List System for Ineligible

Professionals and Debarred Contractors (www.SAM.gov). BORROWER must provide the DOH Contract Manager with a screen printout documenting that neither the firm, the owner or the president are excluded.

B. BORROWER will execute binding written agreements will all contractors and subcontractors that will perform work under this CONTRACT.
C. BORROWER will ensure that every contract and subcontract awarded for the PROJECT after the CONTRACT start date will bind the parties to follow all applicable terms of this CONTRACT.
D. BORROWER will ensure that any and all contractors and subcontractors that perform work related to this Project are duly authorized and licensed in Washington State to perform the work contemplated by this CONTRACT.
E. Neither the BORROWER nor any contractor or subcontractor shall enter into contracts or subcontracts for any of the work associated with the Project contemplated under this CONTRACT without obtaining prior written approval of DOH. In no event will the existence of the contract or subcontract operate to release or reduce the liability of the BORROWER to DOH for any breach in the performance of the BORROWER's duties. This clause does not include grants of employment between the BORROWER and personnel assigned to perform work associated with the Project under this CONTRACT.
F. BORROWER is responsible for ensuring that all terms, conditions, assurances, and certifications set forth in this CONTRACT are carried forward to any contracts and/or subcontracts and that BORROWER is responsible for any noncompliance by its contractors and/or subcontractors for work performed on the Project. Every contract and/or subcontract will include a term that DOH and the State of Washington are not liable for Claims or damages arising from a contractor's and/or subcontractor's performance of such contract or subcontract. BORROWER and its contractors and/or subcontractors agree not to release, divulge, publish, transfer, sell, or otherwise make known to unauthorized persons personal information without the express written consent of DOH or as provided by applicable law. For the avoidance of doubt, BORROWER's contracts or subcontracts will not release or reduce the BORROWER's liability to DOH for any breach in the performance of BORROWER's duties. Also for the avoidance of doubt, BORROWER's contracts and subcontracts will include a term that the State of Washington and DOH are not liable for claims or damages arising from a contractor and/or subcontractor's performance or lack thereof.
G. Data Collection - BORROWER will submit reports, in a form and format to be provided by DOH and at intervals as agreed by the parties, regarding work under this CONTRACT performed by contractors and/or subcontractors and the portion of LOAN FUNDS expended for work performed by contractors and/or subcontractors.
H. The BORROWER will maintain written procedures related to contractors and/or subcontractors as well as copies of all contracts and/or subcontracts and associated records. For cause, DOH in writing may: (a) require that the BORROWER amend its procedures for contracts and/or subcontractors as they relate to this CONTRACT; (b) prohibit the BORROWER from hiring contractors and/or subcontractors with a particular person or entity; or (c) require that the BORROWER rescind or amend a contract or subcontract.
I. The BORROWER is responsible to DOH if the contractor and/or subcontractor fails to comply with any applicable term or condition of this CONTRACT. The BORROWER will appropriately monitor the activities of the contractor and/or subcontractor to assure fiscal conditions of this CONTRACT. In no event will the existence of a contract and/or subcontract operate to release or reduce the liability of the BORROWER to DOH for any breach in the performance of the BORROWER's duties.

4.56. SURVIVAL

The terms, conditions, and warranties contained in this CONTRACT that by their sense and context are intended to survive the completion of the performance, cancellation, or termination of this CONTRACT shall so survive including, without limitation, any Recapture provision in this CONTRACT.

4.57. TAXES

All payments accrued on account of payroll taxes, unemployment contributions, the BORROWER's income or gross receipts, and/or any other taxes, insurance, or expenses for the BORROWER or its staff shall be the sole responsibility of the BORROWER.

4.58. TERMINATION FOR CAUSE

If DOH determines that BORROWER has failed to comply with the terms and conditions of this CONTRACT in a timely manner, DOH may, at its sole discretion, upon notice to BORROWER, terminate or suspend the CONTRACT in whole or in part.

The notice will be in writing and state the reason(s) for termination or suspension, and the effective date. The effective date will be determined by DOH. The notice will allow BORROWER at least 30 business days to cure the breach, if curable. If the breach is not cured or cannot be cured within 30 business days, the outstanding balance of the LOAN, with any interest accrued and other costs as authorized by the CONTRACT shall be due and payable to DOH.

If DOH terminates or suspends this CONTRACT under this Section, DOH is only liable for payment required under the terms and conditions of this CONTRACT for ELIGIBLE PROJECT COSTS incurred prior to the effective date of termination. If DOH terminates or suspends this CONTRACT under this Section, the BORROWER will be liable for damages as authorized by law including, without limitation, any cost difference between the original CONTRACT and the replacement or cover CONTRACT and all administrative costs directly related to the replacement CONTRACT (e.g., cost of the competitive bidding, mailing, advertising and staff time). Notwithstanding this, DOH reserves the right to suspend all or part of the CONTRACT, withhold further payments, or prohibit the BORROWER from incurring additional obligations of funds during investigation of the alleged compliance breach and pending corrective action by the BORROWER or a decision by DOH to terminate the CONTRACT.

At DOH's sole discretion, the termination for cause may be deemed a "Termination or Suspension for Convenience" under Section [4.53] if DOH determines that the BORROWER was not in default or if any default or failure to perform under this CONTRACT was outside BORROWER's control, fault, or negligence. The rights and remedies of DOH provided in this CONTRACT are not exclusive and are in addition to any other rights and remedies provided under applicable law. Nothing in this Section affects BORROWER's obligations to immediately repay the unpaid balance of the LOAN AMOUNT as prescribed in the Washington Administrative Code (***WAC***) 246-296-150.

4.59. TERMINATION FOR FRAUD

In the event that the BORROWER commits fraud or makes any misrepresentation in connection with the loan application or during the performance of this CONTRACT, DOH reserves the right to terminate or amend this CONTRACT accordingly, including the right to recapture all funds disbursed to the BORROWER under the CONTRACT.

4.60. TERMINATION OR SUSPENSION FOR CONVENIENCE

If funding or appropriation from state, federal, or other sources is withdrawn, reduced, or limited in any way during the TIME OF PERFORMANCE, DOH may:

A. Delay or suspend releasing LOAN FUNDS until funding or appropriation are available to DOH; or
B. Amend the CONTRACT to reflect the new funding limitations and conditions; or
C. Terminate the CONTRACT and/or its attached agreements, in whole or in part; or
D. Suspend the CONTRACT and/or its attached agreements, in whole or in part.

If DOH terminates the CONTRACT under this Section, DOH will notify BORROWER's representative in writing of the reason(s) for termination, and the effective date. Termination of the CONTRACT will be effective as of the date determined by DOH.

DOH may choose to suspend this CONTRACT, in whole or in part, if DOH determines that the funding insufficiency will likely be resolved in time for BORROWER to resume activities prior to the end of the TIME OF PERFORMANCE. DOH will notify BORROWER's representative by email of the reason(s) for suspension, and the effective date. DOH will determine the effective date. BORROWER must suspend performance on the effective date of the suspension. During the period of suspension, each party must notify the other party's representative of any conditions that may reasonably affect its ability to resume performance.

During the suspension, when DOH determines that the funding insufficiency is resolved, DOH may notify BORROWER's representative of the proposed date to resume performance. BORROWER must respond to DOH's representative in writing, within 5 business days of DOH sending notice, as to whether it can resume performance on that date or offer an alternative date to resume performance. If BORROWER cannot resume performance or the alternative date is not acceptable to DOH, the parties agree the CONTRACT will be deemed terminated for convenience, retroactive to the original date of suspension.

If DOH terminates or suspends this CONTRACT, DOH will be liable only for payment required under the terms of this CONTRACT for ELIGIBLE PROJECT COSTS for services rendered or goods received that were incurred prior to the effective date of suspension or termination, and payment for any work done on the CONTRACT prior to the loss of funding will be done in accordance with the requirements of the funding source. Nothing in this Section shall affect BORROWER's obligations to repay the unpaid balance of the LOAN. Nothing in this Section affects BORROWER's obligation to repay the LOAN, including fees and other expenses as allowed by the CONTRACT. For the avoidance of doubt, should funding from any funding source (including, without limitation, federal funding) that supports this CONTRACT be withdrawn, reduced, or limited in any way after the effective date of this CONTRACT and prior to normal completion of the Project, DOH (at its sole discretion) may terminate the CONTRACT without any notice requirement and/or may amend the CONTRACT to reflect the new funding limitations and conditions. Also, for the avoidance of doubt, should funding from any funding source (including, without limitation, federal funding) that supports this CONTRACT be terminated, this CONTRACT and all obligations, including payment for work done under this CONTRACT, will be terminated without the 10-calendar day notice requirement and instead as of the date of the termination of the funding source.

4.61. TERMINATION PROCEDURES

When BORROWER receives Notice of Termination or on the date a suspension is converted to a termination, except as otherwise directed by DOH, BORROWER will:

A. Stop work under the CONTRACT on the date, and to the extent specified, in the notice;

B. Place no further orders or subcontracts for materials, services, or facilities related to the CONTRACT except as may be necessary for completion of such portion of the work under the CONTRACT that is not terminated;

C. Assign to DOH, in the manner, at the times, and to the extent directed by the Authorized Representative, any or all of the rights, title, and interest of BORROWER under the orders and subcontracts so terminated, in which case DOH has the right, at its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts. Any attempt by BORROWER to settle such claims must have the prior written approval of DOH;

D. Settle all outstanding liabilities and all Claims arising out of such termination of orders and subcontracts, with the approval or ratification of the DOH Authorized Representative to the extent the DOH Authorized Representative may require, which approval or ratification shall be final for all the purposes of this clause;

E. Complete performance of such part of the work associated with the Project as shall not have been terminated by the DOH Authorized Representative;

F. Take such action as may be necessary, or as the DOH Authorized Representative may direct, for the protection and preservation of the property related to this CONTRACT, which is in the possession of the BORROWER and in which DOH has or may acquire an interest; and

G. Preserve and transfer title to DOH and delivery in the manner, at the times, and to the extent directed by the DOH Authorized Representative of any property that if the CONTRACT had been completed would have been required to be furnished to DOH (including, without limitation, materials, CONTRACT deliverables, and/or DOH property in BORROWER's possession) as directed by DOH.

Upon termination of this CONTRACT, DOH will pay BORROWER for amounts due under the CONTRACT prior to the date of termination unless such payment is precluded under any other provision of this CONTRACT. DOH may withhold any amount due as DOH reasonably determines is necessary to protect DOH against potential loss or liability resulting from the termination. DOH will pay any withheld amount to BORROWER if DOH later determines that loss or liability will not occur. Notwithstanding this, the parties understand and agree that failure of BORROWER to agree with such determination shall be a dispute within the meaning of the "Disputes" clause of this

CONTRACT. DOH may withhold from any amounts due the BORROWER for such sum as the DOH Authorized Representative determines to be necessary to protect DOH against potential loss or liability.

Upon termination of this CONTRACT, DOH, in addition to any other rights provided in this CONTRACT, may require the BORROWER to deliver to DOH any property specifically produced or acquired for the performance of such part of this CONTRACT as has been terminated. The rights and remedies of DOH provided in this Section shall not be exclusive and are in addition to any other rights and remedies provided by law or under this CONTRACT.

4.62. WORK HOURS AND SAFETY STANDARDS

If this CONTRACT exceeds $100,000, BORROWER must comply with the applicable Contract Work Hours and Safety Standards Act (40 USC Chapter 37). These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

4.63. ACCESS TO DATA

In compliance with RCW 39.26.180, the BORROWER will provide access to data generated under this CONTRACT to DOH, the Joint Legislative Audit and Review Committee, and the Office of the State Auditor at no additional cost. This includes access to all information that supports the findings, conclusions, and recommendations of the BORROWER's reports, including computer models and the methodology for those models.

4.64. ADVANCE PAYMENTS PROHIBITED

No payments in advance of or in anticipation of goods or services to be provided under this CONTRACT shall be made by DOH.

4.65. ALLOWABLE COSTS

Costs allowable under this CONTRACT are actual expenditures according to an approved budget up to the maximum amount stated on the CONTRACT Award or Amendment Face Sheet.

4.66. AMERICANS WITH DISABILITIES ACT (ADA) OF 1990, PUBLIC LAW 101-336, ALSO REFERRED TO AS THE "ADA" 28 CFR PART 35 ALLOWABLE COSTS

The BORROWER will comply with the ADA, which provides comprehensive civil rights protection to individuals with disabilities in the areas of employment, public accommodations, state and local government services, and telecommunications.

4.67. BREACHES OF OTHER STATE CONTRACTS

BORROWER will comply with all other contracts and grant agreements executed between BORROWER and the State of Washington. A breach of any other contract or grant agreement entered into between BORROWER and the State of Washington may, in DOH's sole discretion, be deemed a breach of this CONTRACT.

4.68. CODE REQUIREMENTS

All construction and rehabilitation projects must satisfy the requirements of applicable local, state, and federal building, mechanical, plumbing, fire, energy and barrier-free codes. Compliance with the Americans with Disabilities Act of 1990 28 C.F.R. Part 35 will be required, as specified by the local building department and/or DOH.

4.69. CONFLICT OF INTEREST

Notwithstanding any determination by the Executive Ethics Board or other tribunal, DOH may, in its sole discretion, by written notice to the BORROWER terminate this CONTRACT if it is found after due notice and examination by DOH that there is a violation of the Ethics in Public Service Act, RCW 42.52 and RCW 42.23, or any similar statute involving the BORROWER in the procurement of, or performance under, this CONTRACT.

Specific restrictions apply to contracting with current or former state employees pursuant to RCW 42.52. The BORROWER and all subcontractors (if any) will identify any person employed in any capacity by the State of Washington that worked on this CONTRACT, or any matter related to the Project funded under this CONTRACT or any other state funded project, including, but not limited to, formulating or drafting legislation, participating in grant procurement, planning and execution, awarding grants, or monitoring grants, during the 24 month period preceding the start date of this CONTRACT. Any person identified by the BORROWER and their subcontractors (if any) must be identified individually by name, the agency previously or currently employed by, job title or position held, and separation date. If it is determined by DOH that a conflict of interest exists, the BORROWER may be disqualified from further consideration for the award of a grant.

In the event this CONTRACT is terminated as provided above, DOH will be entitled to pursue the same remedies against the BORROWER as it could pursue in the event of a breach of the CONTRACT by the BORROWER. The rights and remedies of DOH provided for in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law. The existence of facts upon which DOH makes any determination under this clause will be an issue and may be reviewed as provided in Section 4.21 (Disputes) of this CONTRACT.

4.70. DUPLICATE PAYMENT

DOH will not pay the BORROWER, if the BORROWER has charged or will charge the State of Washington or any other party under any other grant, subcontract, contract, or agreement, for the same services or expenses. The BORROWER certifies that work to be performed under this CONTRACT does not duplicate any work to be charged against any other grant, subcontract, contract, or agreement.

ATTACHMENT I: SCOPE OF WORK (PROJECT)

DWSRF PROGRAM
CONSTRUCTION LOAN CONTRACT INFORMATION

APPLICATION #2024-4351, CITY OF VANCOUVER, WATER STATION 9 PFAS TREATMENT

DWSRF Scope of Work Form:

Scope of Work:

Project to include:

1. Submit project report and construction documents to Southwest Regional Office for review and approval.
2. Submit bid documents to Southwest Regional Office for review and approval.
3. Submit SEPA determination.
4. Complete cultural and historical review process. Submit finalization letter.
5. Construct a pad for filter media vessels, piping, appurtenances, disinfection treatment, pump upgrades, carrier water plumbing, electrical, and controls. Connect treatment system to existing water system.
6. Construct a pad for standby generator.
7. Construct backwash tanks and pad and site improvements including pavement to the treatment and backwash tanks.
8. Submit completed Construction Completion Report and Office of Drinking Water acknowledgement email.

In addition to costs of construction, costs may include (but are not limited to): engineering, design, construction inspection, hydrogeologic assessment, permits, public involvement, preparation of bid documents, fees, taxes, legal, administrative and audit.

APPLICATION #2024-4351, CITY OF VANCOUVER, WATER STATION 9 PFAS TREATMENT

Project Costs by Cost Category:

COST CATEGORY	CURRENT ESTIMATES
Engineering Report (Preliminary Engineering)	$130,000
Environmental Review	$5,000
Historical Review/Cultural Review	$12,844
Land/ROW Acquisition	$0
Permits	$0
Public Involvement/Information	$0
Bid Documents (Design Engineering)	$4,097,500
Construction: Estimated Cost. Provide details on following pages.	$6,552,156
Contingency: (10% min, 20% max)	$1,200,000
DOH Review/Approval Fees:	$2,500
Sales or Use Taxes	$0
Construction Engineering/Inspection	$0
Insurance:	$0
Audit:	$0
Legal:	$0
Service Meters (Purchase and Installation)	$0
Other:	$0
TOTAL ESTIMATED PROJECT COSTS (before Loan Fee)	**$12,000,000**
DWSRF Loan Origination Fee	**0.00**
DWSRF Loan Award	**$12,000,000**

APPLICATION #2024-4351, CITY OF VANCOUVER, WATER STATION 9 PFAS TREATMENT

Project Funding:

TYPE OF FUNDING	SOURCE	CURRENT STATUS
Grants and Other Non-Matching Funds		
Grant #1		$
Grant #2		$
Other Grants		$
New Grants		$
	Total Grants and Other Non-Matching Funds	**$**
Loans		
This Loan Request	**DWSRF loan (DWL31572-0)**	**$12,000,000**
Other Loan #1		$
Other Loan #2		$
Other Loans		$
New Loans		$
	Total Loans	**$**
Local Revenue		
Source #1	**City of Vancouver Water Construction Fund**	$**34,010,882**
Source #2		$
Other Local Revenue		$
New Local Revenue		$
	Total Local Revenue	**$34,010,882**
Other Funds		
Other Funds		$
Other Funds		$
	Total Other Funds	**$**
TOTAL PROJECT FUNDING		***a)*** **$46,010,882**

Engineer's Certification:

The term of this loan will be based on an engineer's certification of the expected useful life of the improvements, as stated below, or 20 years, whichever is less. If the jurisdiction prefers the term of its loan to be less than either 20 years or the useful life of the improvements, the preferred loan term should be indicated here: __ years.

I, _____, licensed engineer, certify that the average expected useful life for the improvements described above is __ years.

Signed: _____

Name: _____

Date: _____

Telephone: _____

Professional Engineer License Number: _____

Engineer's Certification:

The term of this loan will be based on an engineer's certification of the expected useful life of the improvements, as stated below, or 20 years, whichever is less. If the jurisdiction prefers the term of its loan to be less than either 20 years or the useful life of the improvements, the preferred loan term should be indicated here: __ years.

I, _____, licensed engineer, certify that the average expected useful life for the improvements described above is __ years.

Signed: _____

Name: _____

Date: _____

Telephone: _____

Professional Engineer License Number: _____

ATTACHMENT II: ATTORNEY'S CERTIFICATION

DRINKING WATER STATE REVOLVING FUND
(MUNICIPAL)

I, _____, hereby certify:

I am an attorney at law admitted to practice in the State of Washington and the duly appointed attorney of BORROWER identified in the Declarations of the CONTRACT identified above; and

I have also examined any and all documents and records, which are pertinent to the CONTRACT, including, without limitation, the application requesting this LOAN.

Based on the foregoing, it is my opinion that:

1. BORROWER is a public body, properly constituted and operating under the laws of the State of Washington, in good standing with the Washington Secretary of State, empowered to receive and expend federal, state, and local funds, to contract with the State of Washington, and to receive and expend the LOAN AMOUNT to accomplish the objectives set forth in the CONTRACT and to complete the PROJECT.

2. BORROWER is empowered to accept the Drinking Water State Revolving Fund financial assistance and to provide for repayment of the LOAN as set forth in the CONTRACT.

3. There is currently no litigation in existence or foreseeable seeking to enjoin the commencement or completion of the PROJECT or to enjoin BORROWER from repaying the Drinking Water State Revolving Fund LOAN extended by DOH with respect to such PROJECT. BORROWER is not a party to litigation, which will materially affect its ability to repay such LOAN on the terms contained in the CONTRACT.

4. Assumption of this obligation would not exceed statutory and administrative rule debt limitations applicable to BORROWER.

Any terms not defined in this Attachment are set forth in the General Terms and Conditions or the Declarations Section of the Drinking Water State Revolving Fund (Municipal) loan agreement between DOH and BORROWER.

_____ _____
Signature of Attorney Date

_____
Name and BAR Number (WSBA No.)

_____
Address Line 1

_____
Address Line 2

ATTACHMENT III: FEDERAL AND STATE REQUIREMENTS (NOT ALL INCLUSIVE)

1) Federal Environmental and Cultural Authorities

a) Archeological and Historic Preservation Act of 1974, Public Law 86-523, as amended
b) Archaeological Resources Protection Act (ARPA), 16 U.S.C. §470 and Public Law 96–95, as amended
c) Clean Air Act, Public Law 84-159 as amended
d) Coastal Zone Management Act, Public Law 92-583 as amended
e) Endangered Species Act, Public Law 93-205 as amended
f) Environmental Justice, Executive Order 12898
g) Floodplain Management, Executive Order 11988 as amended by Executive Order 12148
h) Protection of Wetlands, Executive Order 11990
i) Farmland Protection Policy Act, Public Law 97-98
j) Fish and Wildlife Coordination Act, Public Law 85-624 as amended
k) National Historic Preservation Act, paying particular attention to Section 106 requirements
l) Safe Drinking Water Act, Public Law 93-523 as amended
m) Wild and Scenic Rivers Act, Public Law 90-542 as amended
n) Native American Graves Protection and Repatriation Act (***NAGPRA***) (25 USC 32) and associated regulations (43 CFR 10)
o) Code of Federal Regulations 40 Part 141, Federal National Primary Drinking Water Regulations (Section Adopted by Reference)
p) 43 C.F.R. §3, Preservation of American Antiquities
q) 43 C.F.R. §7, Protection of Archaeological Resources

2) Buy America Build America Requirements

DWSRF construction projects chosen for FFATA/Equivalency reporting must comply with the Buy America Build America provisions. Projects started prior to May 14, 2022, may be exempt. Visit the EPA website for more information on the BABA requirements and the waiver process at https://www.epa.gov/cwsrf/build-america-buy-america-baba.

3) Federal Economic and Miscellaneous Authorities

a) Demonstration Cities and Metropolitan Development Act of 1996, Public Law 89-754 as amended, Executive Order 12372
b) Procurement Prohibitions under Section 306 of the Clean air Act and Section 508 of the Clean Water Act, including Executive Order 11738, Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants, or Loans
c) Uniform Relocation and Real Property Policies Act, Public Law 91-646 as amended
d) Debarment and Suspension Regulations, Executive Order 12549 and associated regulations (e.g., 71 F.R. 66431)
e) H.R. 3547, Consolidated Appropriations Act, 2014, Public Law 113-76 as amended

4) Federal Social Policy Authorities

a) Age Discrimination Act of 1975, Public Law 94-135
b) Title VI of the Civil Rights Act of 1964, Public Law 88-352
c) Section 13 of the Federal Water Pollution Control Act Amendments of 1972, Public Law 92-500 (the Clean Water Act)
d) Section 504 of the Rehabilitation Act of 1973, Public Law 93-112 (including Executive Orders 11914 and 11250)
e) Equal Employment Opportunity, Executive Order 11246
f) Disadvantaged Business Enterprise, Public Law 101-549 (the Clean Air Act), and Public Law 102-389 (the Clean Water Act)
g) Section 129 of the Small Business Administration Reauthorization and Amendment Act of 1988, Public Law 100-590
h) 42 USC 12101 et seq. the Americans with Disabilities Act of 1990 and associated regulations (including, without limitation, 28 C.F.R. Part 35) (***ADA***)
i) The Contract Work Hours and Safety Standards Act (40 USC 327-333), as applicable
j) The Genetic Information Nondiscrimination Act of 2008 (***GINA***), 42 USC s. 2000ff et seq.
k) Federal Hatch Act, 5 USC 1501-1508

5) State Laws

a) RCW 27.44, Indian Graves and Records
b) RCW 27.53, Archaeological Sites and Resources
c) RCW 36.70A, Growth Management Act
d) RCW 39.04, Public Works
e) RCW 39.10, Alternative Public Works Contracting Procedures
f) RCW 39.12, Prevailing Wages on Public Works
g) RCW 39.80, Contracts for Architectural and Engineering Services
h) RCW 39.26.180, Contract Management
i) RCW 42.56, Public Records Act
j) RCW 42.17a, Campaign Disclosure and Contributions provision
k) RCW 42.23, Code of Ethics for Municipal Officers-Contract Interests
l) RCW 42.52, Ethics in Public Service
m) Chapter 43.20 RCW, State Board of Health
n) RCW 43.21C, State Environmental Policy Act
o) RCW 43.70, Department of Health
p) RCW 43.155, Public Works Project
q) RCW 49.60, Washington's Law against Discrimination, including, without limitation, RCW 49.60.530(3), Contractors and subcontractors with state for public works or for goods or services—Nondiscrimination requirements
r) RCW 51, Industrial Insurance
s) RCW 68.60, Abandoned and Historic Cemeteries and Historic Graves
t) RCW 70.116, Public Water Systems Coordination Act of 1977
u) RCW 70.119, Public Water Supply Systems Certification and Regulation of Operations
v) RCW 70.119A, Public Water Systems, Penalties & Compliances
w) WAC 25-48, Archaeological Excavation and Removal Permit
x) WAC 246-290, Group A Public Water Systems
y) WAC 246-291, Group B Public Water Systems
z) WAC 246-292, Waterworks Operator Certification Regulations
aa) WAC 246-293, Water Systems Coordination Act
bb) WAC 246-294, Drinking Water Operating Permits
cc) WAC 246-295, Satellite System Management Agencies
dd) WAC 246-296, Drinking Water State Revolving Fund Loan Program
ee) WAC 173-160, Minimum Standards for Construction & Maintenance of Wells
ff) WAC 173, Department of Ecology Rules
gg) Governor's Executive Order 21-02

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ATTACHMENT IV: DISADVANTAGED BUSINESS ENTERPRISE REQUIREMENTS

GENERAL COMPLIANCE, 40 CFR, Part 33

BORROWER must comply with the requirements of Environmental Protection Agency's Program for Utilization of Small, Minority and Women's Business Enterprises (MBE/WBE) in procurement under this Contract, contained in 40 CFR, Part 33. BORROWER will use the directory of certified firms available through the Washington State Office of Minority and Women's Business Enterprises to meet the requirements.

FAIR SHARE OBJECTIVES, 40 CFR, Part 33, Subpart D

The following are exemptions from the fair share objective Requirements:

- Grant and loan recipients receiving a total of $250K or less in EPA financial assistance in a given fiscal year.
- Tribal recipients of Performance Partnership Eligible grants under 40 CFR Part 35, Subpart B.
    - There is a 3-year phase in period for the requirement to negotiate fair share goals for Tribal and Insular Area recipients.
- Recipients of Technical Assistance Grants.

The Fair Share Objectives or goals for the utilization of disadvantaged businesses negotiated with EPA by the WA Office of Minority Women Business are stated below.

Construction	10% MBE	6% WBE
Supplies	8% MBE	4% WBE
Equipment	8% MBE	4% WBE
Purchased Services	10% MBE	4% WBE

BORROWER must accept the fair share objectives/goals stated above and purchase the same or similar construction, supplies, services and equipment, in the same or similar relevant geographic buying market as WA Office of Minority Women Business goals.

SIX GOOD FAITH EFFORTS, 40 CFR, Part 33, Subpart C

Pursuant to 40 CFR, Section 33.301, BORROWER will make the following good faith efforts whenever procuring construction, equipment, services and supplies under an EPA financial assistance agreement, and to ensure that sub-recipients, loan recipients, and prime contractors also comply.

Records documenting compliance with the six good faith efforts shall be retained. The six good faith efforts shall include:

A. Ensure Disadvantaged Business Enterprises are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local Government recipients, this will include placing the Disadvantaged Business Enterprises on solicitation lists and soliciting them whenever they are potential sources.

B. Make information on forthcoming opportunities available to Disadvantaged Business Enterprises and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by Disadvantaged Business Enterprises in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of thirty (30) calendar days before the bid or proposal closing date.

C. Consider in the contracting process whether firms competing for large contracts could subcontract with Disadvantaged Business Enterprises. For Indian Tribal, State and Local Government recipients, this will include dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by Disadvantaged Business Enterprises in the competitive process.

D. Encourage contracting with a consortium of Disadvantaged Business Enterprises when a contract is too large for one of these firms to handle individually.

E. Use the services and assistance of the Small Business Administration and the Minority Business Development Agency of the Department of Health.

F. If the prime contractor awards subcontracts, also require the prime contractor to take the five good faith efforts in paragraphs A through E above.

MBE/WBE REPORTING, 40 CFR, Part 33, Sections 33.502 and 33.503

BORROWER is required to submit MBE/WBE participation reports to DOH, on a quarterly basis, beginning with the Federal fiscal year reporting period BORROWER receives the award and continuing until the project is completed.

CONTRACT ADMINISTRATION PROVISIONS, 40 CFR, Section 33.302

BORROWER agrees to comply with the contract administration provisions of 40 CFR, Section 33.302.

Only procurements with certified MBE/WBEs are counted toward a Contractor's MBE/WBE accomplishments.

BIDDERS LIST, 40 CFR, Section 33.501(b) and (c)

BORROWER is also required to create and maintain a bidders list if BORROWER of the loan is subject to, or chooses to follow, competitive bidding requirements. Please see 40 CFR, Section 33.501 (b) and (c) for specific requirements and exemptions.

Section 33.501(b) of the rule is as follows:

A recipient of a Continuing Environmental Program Grant or other annual grant must create and maintain a bidders list. In addition, a recipient of an EPA financial assistance agreement to capitalize a revolving loan fund also must require entities receiving identified loans to create and maintain a bidders list if the recipient of the loan is subject to, or chooses to follow, competitive bidding requirements. The purpose of a bidders list is to provide the recipient and entities receiving identified loans who conduct competitive bidding with as accurate a database as possible about the universe of MBE/WBE and non-MBE/WBE prime and subcontractors. The list must include all firms that bid or quote on prime contracts or bid or quote on subcontracts under EPA assisted projects, including both MBE/WBEs.

The bidders list must be kept until the grant project period has expired and the recipient is no longer receiving EPA funding under the grant. For entities receiving identified loans, the bidders list must be kept until the project period for the identified loan has ended. The following information must be obtained from all prime and subcontractors:

(1) Entity's name with point of contact;
(2) Entity's mailing address, telephone number, and e-mail address;
(3) The procurement on which the entity bid or quoted, and when; and
(4) Entity's status as a MBE/WBE[1] or non-MBE/WBE.

The exemption found at § 33.501(c) is as follows:

A recipient of an EPA financial assistance agreement in the amount of $250,000 or less for any single assistance agreement, or of more than one financial assistance agreement with a combined total of $250,000 or less in any one fiscal year, is exempt from the paragraph (b) of this Section requirement to create and maintain a bidders list. Also, a recipient under the CWSRF, DWSRF, or BCRLF Program is not required to apply the paragraph (b) of this Section bidders list requirement of this subpart to an entity receiving an identified loan in an amount of $250,000 or less, or to an entity receiving more than one identified loan with a combined total of $250,000 or less in any one fiscal year. This exemption is limited to the paragraph (b) of this Section bidders list requirements of this subpart.

[1] Qualified Women and Minority business enterprises may be found on the Internet at www.omwbe.wa.gov or by contacting the Washington State Office of Minority and Women's Enterprises at 360-704-1181.

ATTACHMENT V: CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS

United States Environmental Protection Agency
Washington, DC 20460

The terms, “covered transaction, debarred, suspended, ineligible, lower tier covered transaction, person, primary covered transaction, principal, and voluntarily excluded”, as used in this attachment, are defined in the rules implementing Executive Order 12549, including 13 CFR § 400.109. You may contact DOH for help getting a copy of these regulations.

BORROWER, defined as the primary participant and it principals, certifies by signing below that to the best of its knowledge and belief they:

A. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

B. Have not within a three-year (3) period preceding this CONTRACT, been convicted of or had a civil judgment against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, receiving stolen property, making false claims, or obstruction of justice;

C. Are not presently indicted for or otherwise criminally or civilly charged by a government entity (federal, state, or local) with commission of any of the offenses described in this attachment; and,

D. Have not within a three-year period (3) preceding the signing of this CONTRACT had one or more public transactions (federal, state, or local) terminated for cause or default.

Prior to awarding contracts for the PROJECT, BORROWER must verify that neither the contractor’s business name(s) nor the names of its principals are in the Federal Excluded Parties List System for Ineligible Professionals and Debarred Contractors (www.SAM.gov). BORROWER must keep documentation in the PROJECT files and provide a copy to the DOH Contract Manager.

BORROWER will include the language below without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions:

> The lower tier contractor certifies, by signing this CONTRACT that neither it nor its principals are debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

I understand that a false statement on this certification may be ground for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in a fine or imprisonment for up to 5 years, or both.

_____
Typed or Printed Name & Title of Authorized Representative

_____
Signature of Authorized Representative Date

☐ I am unable to certify to the above statements. My explanation is attached.

ATTACHMENT VI: DWSRF ELIGIBLE PROJECT COSTS

Must be directly attributable to the project.

1. The costs for complying with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.
2. DWSRF loan fees.
3. The purchase of a portion of another system's capacity, if it is the most cost effective solution (limited to publicly owned (municipal) systems).
4. Construction of reservoirs (clear wells) that are part of the treatment process and are collocated with the treatment facility.
5. Construction of distribution reservoirs (finished water).
6. Cost associated with restructuring or consolidation of existing water systems by publicly owned water systems.
7. Main extensions to connect to safe and reliable sources of drinking water.
8. Cost associated with collecting and preparing environmental assessment documents to obtain local permits.
9. Direct labor including related employee benefits:
    a. Salaries and wages (at actual or average rates) covering productive labor hours of employees of the borrower (excluding the administrative organization of the operating unit involved) for periods of time actively or incidentally engaged in pre-design engineering, design engineering, construction engineering, acquisition of rights of way, and the cleaning, sterilization or bacteriological testing of water system components prior to public use. The costs of services rendered by employees generally classified as administration/project management of the loan are considered a direct cost only when such employees are assigned the types of services described above and shall be limited to 3% or less of the project loan amount.
    b. Employee benefits relating to labor are considered a direct cost of construction projects. The following items may be included as employee benefits:
        - F.I.C.A. (Social Security) –employer's share.
        - Retirement benefits.
        - Hospital, health, dental, and other welfare insurance.
        - Life insurance.
        - Industrial and medical insurance.
        - Vacation.
        - Holiday.
        - Sick leave.
        - Military leave and jury duty.

        Employee benefits must be calculated as a percentage of direct labor dollars. The computation of predetermined percentage rates to be applied to current labor costs must be based on the average of total employee benefits and total labor costs for the prior fiscal year and adjusted by known current year variations.
    c. Other than work identified in Number 9.a, no costs associated with labor performed by the borrower's employees, including force account work, are eligible for financing assistance.
10. Contract engineering, planning, design, legal, and financial planning services. The Department of Health reserves the right to declare ineligible legal costs that are unreasonable and disproportionate to the project.
11. Contract construction work.
12. Direct vehicle and equipment charges at the actual rental cost paid for the equipment or, in the case of city or county-owned equipment, at the rental rates established by the local government's "equipment rental and revolving fund" following the methods prescribed by the division of municipal corporations. However, such costs must be charged on a uniform basis to equipment used for all projects regardless of the source of funding. Cities with a population of eight thousand or less not using this type of fund are allowed the same rates as used by the State Department of Transportation.
13. Direct materials and supplies.
14. Other direct costs incurred for materials or services acquired for a specific project are eligible costs and may include, but are not limited to such items as:
    a. Telephone charges.
    b. Reproduction and photogrammetry costs.
    c. Video and photography for project documentation.
    d. Computer usage.
    e. Printing and advertising.
15. Other project related costs include:
        - Competitive Bidding.
        - Audit.
        - Insurance.
        - Prevailing wages.
        - Attorney fees.
        - Environmental Review.
        - Archaeological Survey.

Water system plan costs are not eligible for reimbursement. Small water system management program and plan amendments costs are eligible for reimbursement.

Projects may be designed to accommodate reasonable growth. This is generally the 20-year projection included in the system's water system plan or small water system management program.

ATTACHMENT VII: LABOR STANDARD PROVISIONS FOR SUBRECIPIENTS THAT ARE GOVERNMENTAL ENTITIES

Wage Rate Requirements Under the Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6)

Preamble

With respect to the Clean Water and Safe Drinking Water State Revolving Funds, EPA provides capitalization grants to each state which in turn provides subgrants or loans to eligible entities within the state. Typically, the subrecipients are municipal or other local governmental entities that manage the funds. For these types of recipients, the provisions set forth under Roman Numeral I, below, shall apply. Although EPA and the State remain responsible for ensuring subrecipients' compliance with the wage rate requirements set forth herein, those subrecipients shall have the primary responsibility to maintain payroll records as described in Section 3(ii)(A), below and for compliance as described in Section I-5.

Occasionally, the subrecipient may be a private for profit or not for profit entity. For these types of recipients, the provisions set forth in Roman Numeral II, below, shall apply. Although EPA and the State remain responsible for ensuring subrecipients' compliance with the wage rate requirements set forth herein, those subrecipients shall have the primary responsibility to maintain payroll records as described in Section II-3(ii)(A), below and for compliance as described in Section II-5.

I. Requirements Under The Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6)

For Subrecipients That Are Governmental Entities:

The following terms and conditions specify how recipients will assist EPA in meeting its Davis-Bacon (DB) responsibilities when DB applies to EPA awards of financial assistance under the FY 2013 Continuing Resolution with respect to State recipients and subrecipients that are governmental entities. If a subrecipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact Department of Health. If a State recipient needs guidance, they may obtain additional guidance from DOL's web site at http://www.dol.gov/whd/.

1. Applicability of the Davis- Bacon (DB) prevailing wage requirements.

Under the FY 2013 Continuing Resolution, DB prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If a subrecipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the subrecipient must discuss the situation with the recipient State before authorizing work on that site.

2. Obtaining Wage Determinations.

(a) Subrecipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.

(i) While the solicitation remains open, the subrecipient shall monitor www.wdol.gov weekly to ensure that the wage determination contained in the solicitation remains current. The subrecipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the subrecipients may request a finding from the State recipient that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State recipient will provide a report of its findings to the subrecipient.

(ii) If the subrecipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless the State recipient, at the request of the subrecipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c) (3) (iv). The subrecipient shall monitor www.wdol.gov on a weekly

basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.

(b) If the subrecipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the subrecipient shall insert the appropriate DOL wage determination from www.wdol.gov into the ordering instrument.

(c) Subrecipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.

(d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a subrecipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the subrecipient has failed to incorporate a wage determination or has used a wage determination that clearly does not apply to the contract or ordering instrument. If this occurs, the subrecipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract or ordering instrument by change order. The subrecipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

3. Contract and Subcontract provisions.

(a) The Recipient shall insure that the subrecipient(s) shall insert in full in any contract in excess of $2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the FY 2013 Continuing Resolution, the following clauses:

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this Section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this Section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Borrower and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's web site, www.dol.gov.

(ii)(A) The subrecipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the subrecipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the subrecipient (s) to the State award official. The State award official will transmit the request, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the subrecipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this Section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The subrecipient(s), shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing

apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the subrecipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the subrecipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the subrecipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this Section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the subrecipient(s).

(B) Each payroll submitted shall be accompanied by a “Statement of Compliance,” signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the “Statement of Compliance” required by paragraph (a)(3)(ii)(B) of this Section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this Section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees--

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually

registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The Borrower must comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The Borrower and/or subcontractor must insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may by appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes will be resolved according to the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and Subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, Borrower certifies that neither it (nor he or she) nor any person or firm who has an interest in the Borrower's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 USC 1001.

4. **Contract Provision for Contracts in Excess of $100,000.**

(a) Contract Work Hours and Safety Standards Act. The subrecipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this Section in full in any contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (a)(1) of this Section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this Section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this Section.

(3) Withholding for unpaid wages and liquidated damages. The subrecipient**,** upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this Section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this Section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this Section.

(b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Subrecipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Subrecipient shall insert in any such contract a clause providing hat the records to be maintained under this paragraph shall be made available by the

contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification

(a) The subrecipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information indicated that there is a risk that the contractor or subcontractor is not complying with DB.

Subrecipients shall immediately conduct interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence."

(c) The subrecipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the subrecipient shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The subrecipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the Department of Health and to the appropriate DOL Wage and Hour District Office listed at

https://www.dol.gov/whd/WHD_district_offices.pdf.

Federal Funding Accountability and Transparency Act Data Collection Form

Federal funds that support this agreement between your organization and the Department of Health (DOH) require compliance with the Federal Funding Accountability and Transparency Act (ACT). The purpose of the Transparency Act is to make information available online so the public can see how federal funds are spent.

Your organization must have a Unique Entity Identifier (UEI) to comply with the ACT. Contact the System for Award Management (SAM) at www.SAM.gov if you don't know your organization's UEI, or need to get a free UEI. DOH also encourages registration with the System for Award Maintenance (SAM) to reduce data entry by both DOH and your organization. Register with SAM free of charge at https://uscontractorregistration.com. DOH will report information about your organization and this agreement to the federal government as required by Title 2 CFR, Part 25. The public can view this information on the federal government website www.USASpending.gov.

SUBRECIPIENT

1. Legal Name	2. UEI Number
City of Vancouver	TM9CHABUP4B2

3. Principal Place of Performance	
Vancouver	
3a. City	3b. State
Vancouver	WA
3c. Zip+4	3d. Country
98668	USA

4. Are you registered in SAM? ☐ YES (If yes, skip to signature block. Sign, date and return)
☐ NO (If no, complete section 5)

5. In the preceding fiscal year did your organization:
   a. Receive 80% or more of annual gross revenue from federal contracts, subcontracts, grants, loans, subgrants, and/or cooperative agreements; **and**
   b. $25,000,000 or more in annual gross revenues from federal contracts, subcontracts, grants, loans, subgrants, and/or cooperative agreements; **and**
   c. The public does not have access to this information about the compensation of the senior executives of your organization through periodic reports filed under section 13(a) or 15(d) of the Securities and Exchange Act of 1934 (15 U.S.C. §§ 78m(a), 78o(d) or section 6104 of the Internal Revenue Code of 1986.

☐ NO (skip to signature block. Sign, date and return)
☐ YES (you must report the names and total compensation of the top 5 highly compensated officials of your organization).

Name of Official	Total Compensation
1.	
2.	
3.	
4.	
5.	

Note: "Total compensation" for purposes of this requirement generally means the cash and non-cash value earned by the executive during the past fiscal year and includes salary and bonus; awards of stock, stock options and stock appreciation rights; and other compensation such as severance and termination payments, and value of life insurance paid on behalf of the employee, and as otherwise provided by FFATA and applicable OMB guidance.

By signing this document, the Authorized Representative attests to the information.

Signature of Authorized Representative	Print Name	Date

The Department of Health will not endorse your sub-award until this form is completed and returned.

Federal Funding Accountability and Transparency Act Data Collection Form

FOR DEPARTMENT OF HEALTH USE ONLY

DOH Contract Number
Sub-award Project Description

Instructions for Sub-award Project Description:
In the first line of the description provide a title for the sub-award that captures the main purpose of the subrecipients work. Then, indicate the name of the subrecipient and provide a brief description that captures the overall purpose of the sub-award, how the funds will be used, and what will be accomplished.

Example of a Sub-award Project Description:
Increase Healthy Behaviors: Educational Services District XYZ will provide training and technical assistance to chemical dependency centers to assist the centers to integrate tobacco use into their existing addiction treatment programs. Funds will also be used to assist centers in creating tobacco free treatment environments.

CITY OF
Vancouver
WASHINGTON
Water Station 9
City of Vancouver - City Limits
Taxlots
Felida
Orchards
Vancouver
Portland International Airport
Government Island State Recreation Area
NE 45th St
NE 43rd St
NE 42nd St
NE 39th St
NE 38th Cir
NE 38th St
NE 37th St
NE 144th Ave
NE 145th Ave
NE 146th Ave
NE 147th Ave
NE 148th Ave
NE 149th Ave
NE 150th Ave
NE 151st Ave
NE 141st Ct
NE 146th Ct
NE 148th Ct
NE 148th Ave Ct
NE Columbine Dr
NE Rancho Dr
40th Cir
0
10,000
20,000 Feet
Scale accurate when printed at 8.5"x11"

Staff Report: 005-26

To: Mayor and City Council
From: City Manager
Date: January 12, 2026

Subject

Ratify 2026-2028 Collective Bargaining Agreement with the Vancouver Fire Department Guild (VFDG), Consisting of Employees from the Fire Marshal's Office

Key Points

1. Three-year collective bargaining agreement effective January 1, 2026, to December 31, 2028.
2. Rates of pay will be adjusted through the life of the contract as follows: 2026, 3.5%; 2027, 3%; and 2028, 3%.
3. A change for Lead Deputy Fire Marshal to Deputy Fire Marshal Supervisor is warranted based on existing duties and will be requested in the Spring 2026 budget supplemental.
4. The parties agreed to pay an incentive on task-based professional development and specific certifications over the term of the agreement to ensure Guild employees provide the most value possible to the community they serve.

Strategic Plan Alignment

Safe and Prepared Community – a safe place to live, work, learn and play

High Performing Government – a government that is reliable, fiscally responsible, equitable, and open to compromise

Present Situation

The current collective bargaining agreement with the Vancouver Fire Department Guild (VFDG) expires 12/31/2025. The parties worked collaboratively to finalize a 3-year agreement that focuses on professional development opportunities that will enhance staff capabilities to better serve the public and provide fair annual pay increases.

Advantage(s)

If ratified, the City and the VFDG bargaining unit will operate under a collective bargaining agreement that provides relevant development opportunities for VFDG employees while meeting the City's business needs.

Challenge(s)

No challenges; however, to operationalize the task-based professional development, the parties will work together over the first several months of 2026 to collaboratively develop and implement task books. The goal is for those to be implemented by 1/1/2027.

Budget Impact

The cost of the three-year contract is within Council approved budget authority.

Prior Council Review
Council provided budget authority on November 10, 2025.

Action Requested
On Monday, January 12, 2026, authorize the City Manager, or designee, to approve the 2026-2028 collective bargaining agreement between the City of Vancouver and the Vancouver Fire Department Guild, which is comprised of represented Fire Marshal staff.

Staff Contact
Antoinette Gasbarre, Human Resources Director, Antoinette.Gasbarre@cityofvancouver.us

Attachments:
1. VFDG 2026-2028 CBA - Clean
2. VFDG 2026-2028 CBA - Track Changes without Comments

AGREEMENT

By and Between
The City of Vancouver
and
The Vancouver Fire Department Guild

January 1, 2026-December 31, 2028

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Fire Department Guild Agreement

The City of Vancouver and Vancouver Fire Department Guild (the Guild) recognize that the public interest requires the efficient and uninterrupted performance of Fire Department services, and to this end, pledge their best efforts to avoid or eliminate any conduct contrary to that objective. This agreement is an attempt to put in writing wages, hours and other conditions of employment.

The City of Vancouver and the Guild agree that the provisions of this agreement shall be applied equally to all employees covered hereby without regard, to race, color, creed, religion, sex (including gender identity, sexual orientation, and pregnancy), national origin, citizenship or immigration status, age (40 or older), the presence of any sensory, mental, or physical disability or the use of a trained dog guide or service animal by a person with a disability, genetic information, honorably discharged veteran or military status, or any other class protected by federal, state, or local employment discrimination laws.

Article 1 Guild Representation

1.1 The employer recognizes the Guild as the exclusive bargaining agent for the Lead Deputy Fire Marshal, Deputy Fire Marshal I and II, Fire Code Officer, and Fire Protection Engineer classifications.

1.2 The Employer and the Guild agree that questions of Guild representation that may arise shall be resolved in accord with rules of the Washington State Public Employment Relations Commission (PERC) and in accord with local, state or national statues and rules.

Article 2 Rights of Management

2.1 The right to manage the municipal corporation is vested exclusively in the employer and such right includes but is not necessarily limited to the right to organize, schedule hours, staff, assign work and direct the work force; to set standards of service to be offered to the public; to introduce any and all new, improved and automatic methods or equipment in order to improve efficiency and to reduce costs, and to assign employees within the bargaining unit in accordance with such improvements and cost reduction methods, provided that safe working conditions are maintained; to take action as may be necessary in emergencies (i.e., natural disasters or catastrophes); and to make and enforce rules and regulations. Except as specifically modified by or treated in this agreement, all policies, matters, questions and terms affecting unit employees in their employment relations with the employer shall be governed by such rules, policies, and procedures as the employer, from time to time, may implement. The employer agrees that the Guild will have an opportunity prior to implementation to provide comments and suggestions concerning the new departmental rules and regulations.

Article 3 Union Security

3.1 The parties agree that the terms of this Agreement apply equally to all employees in the bargaining unit and as defined in this Agreement. Any bargaining unit employee may authorize the Employer to take any of the following actions with respect to dues or fees:

A. Deduct from their pay the amount of the Guild membership dues charged by the Guild for representation and services provided by the Guild;
B. Deduct an amount certified by the Guild to be the 'fair share' fee for services provided by the Guild; or
C. Not deduct any due or fee; provided that an employee electing this option may be charged a reasonable fee for services requested by the employee for representation in grievance or arbitration procedures.

3.2 The Guild agrees to provide the employer with Guild dues deductions assignment forms for each employee who desires to pay their Guild dues/voluntary fair share fees by payroll deduction. The employer will deduct such dues/fair share fees from the wages of those employees and forward them to the Guild each month.

3.3 In the event an employee covered by the bargaining unit notifies the Employer that they no longer wish to have dues or fees deducted from their pay, the Employer shall notify the Guild of the notification within five (5) working days.

3.4 The Guild shall indemnify, defend and hold the City harmless from all suits, actions, proceedings or claims against the City or persons acting on behalf of the City, whether for damages, compensation, reinstatement or any combination thereof, arising out of application of this Article. In the event any decision is rendered by the highest court having jurisdiction that any portion of this article is invalid and/or that reimbursements must be made to any employees affected, the Guild shall be solely responsible for such reimbursements.

Article 4 Union Representatives and Union Activity

4.1 The Guild shall inform the Employer in writing of the name of its officers and business representatives who are accredited to represent the Guild, which information shall be kept up-to-date at all times. Only persons so designated will be accepted by the Employer as representatives of the Guild.

4.2 Guild representatives may, after receiving permission from their supervisor, visit the work location of employees covered by this Agreement, for the purpose of administering provisions of the agreement related to grievance processing, disciplinary action and posting of Guild notices on City provided bulletin boards.

4.3 Solicitation of Guild membership or collection or checking of dues will not be conducted during working hours other than as follows:

A. Guild representatives are allowed access to new employees at an agreed upon time by the City and the Guild for the purposes of informing the employee about the exclusive bargaining representative within the first ninety (90) days of the employee's start date; and
B. Guild representatives shall have access to new employees once for new employee orientation for no more than thirty (30) minutes; and
C. Access shall occur during the employee's regular working hours at the employee's regular worksite, unless otherwise agreed.

4.4 The Employer agrees not to discriminate against any member of the Guild for their activity on behalf of or membership in the Guild, provided such activity is not carried on during working hours, except as expressly provided in this agreement.

4.5 Employee officers of the Guild shall be allowed reasonable time away from their work assignment for the purposes of meetings with the City for collective bargaining, grievances or disciplinary hearings or such other legitimate activities as are mutually agreed upon between the Guild and the City. City employees participating in such meetings or activities will be allowed to do so without loss of pay if scheduled during said employee's regularly scheduled work time. If meetings or activities go beyond the regularly scheduled work time, then the employees shall be on their own time, not paid by the City.

For the purposes of attendance at the bargaining table, not more than three (3) on duty employees will be present when bargaining the master agreement.

4.5.1 Employee Guild representatives shall request permission from their immediate manager for time away from their work assignment. Such requests shall be granted provided the time away does not unreasonably detract from their work performance and is in compliance with the above requirements as to the nature of the activity. Time away from their work assignment to act in the role

of Guild representative shall be coded on their timesheet as "Union Leave".

4.5.2 Employee Guild representatives and affected employees shall be allowed time away from their work assignment for meetings with the City. A reasonable amount of prep and debrief time necessary for these meetings shall be allowed.

4.6 City work hours shall not be used by employees or the business representatives for the conduct of Guild business or the promotion of Guild affairs other than stated above.

4.7 The City shall provide bulletin board space for Guild notices in a conspicuous location where workers frequent regularly in each work area.

4.8 Use of City telephones or computers related to Guild business.

A. City telephones or computers use is allowed subject to the following:
   1. When such use is de minimis and incidental, such as arranging a meeting with a Guild representative.
   2. For the purpose of conducting an investigation of a grievance, such as individual inquiries to co-workers.
   3. For the purpose of interacting with the City's representatives concerning Guild-City business, such as setting dates for City-Guild meetings, making inquiries regarding grievances, etc.

B. The uses cited in 4.8(A) may continue only if they incur no additional cost to the City. The content of any and all communications using the City computer system is not privileged and may be subject to City review.

Article 5 Work Week, Hours of Work, and Schedule

5.1 The work period is defined as the timetable between 12:00 a.m., Sunday through 11:59 p.m. the following Saturday. The work week shall be Monday through Friday, 8:00 a.m. to 5:00 p.m. (not to exceed forty (40) hours, excluding lunch periods.) Alternative work schedules may be determined by mutual agreement of the Guild and the employer.

5.2 Rest Periods – Each employee shall be given a 20-minute paid rest period in the first half of the working shift and a 20-minute paid rest period in the second half of the working shift, and an unpaid lunch period of not less than thirty (30) minutes or more than sixty (60) minutes (during the shift).

Article 6 Strikes, Work Stoppages and Work Slowdowns

6.1 The Employer and the Guild signatory to this agreement agree that the public interest requires the efficient and uninterrupted performance of all city services, and to this end, pledge their best efforts to avoid or eliminate any conduct contrary to this objective. The Guild and/or the employers covered by this agreement shall not cause or engage in any work stoppage, strikes, slowdown or other interference with employer functions, nor shall the city institute a lockout. In the event that a strike, boycott, slowdown, mass sick call, work stoppage or other interruption of work occurs, the employer shall notify the Guild of the existence of such activity and request information from the Guild as to whether or not the activity has been authorized. The Guild, after immediately responding to the employer's request, will then proceed to make every reasonable effort to terminate the work interruption activity and induce the employees concerned to return to work so that service to the citizens of the City of Vancouver will not be affected. Employees shall not earn any benefits or wages whatsoever while they are engaged in such actions. In addition, employees who engage in, or encourage, such actions shall be subject to discipline and discharge.

Article 7 Medical Examinations

7.1 Fitness for Duty

The parties recognize that employees have the responsibility to report to work fit for duty.

To ensure physical and mental fitness, the employee may be required to provide the Employer a fully completed certification from a medical and/or psychological provider on a City-provided form of the employee's fitness to perform the specific duties of their job or light duty alternative before returning to work.

The Employer also has the right to send employees for medical and/or psychological examinations at the City's expense for additional certification of fitness for duty whenever the Employer reasonably believes that the employee is not fit for duty or may be a danger to themselves or others.

A. Should the findings of the employer requested medical and/or psychological exam have an adverse effect on the employee's employment, the employee will have an opportunity, at their sole discretion and expense, for a second examination.

The City shall comply with all applicable medical records confidentiality laws associated with any employee medical information.

7.2 Wellness Physicals

A. Participation in the annual wellness physicals set up by the City will be mandatory for the classifications of Deputy Fire Marshals I and II and

Lead Deputy Fire Marshal, whose job description includes fire investigation. Wellness screenings will be administered at the sole cost and discretion of the City.

B. The City will bear the costs of the annual wellness physicals and shall include but not be limited to:
   a. Bloodwork: Comprehensive Metabolic Panel, Lipid Panel, Complete Blood Count
   b. Electrocardiogram
   c. Treadmill Stress Test for those who are 40 years old and then every 5 years after the age of 40
   d. Urine Microanalysis

C. All information gathered as a result of the wellness testing process shall remain confidential between the medical and/or other service provider and the employee. Neither the City of Vancouver nor the Union shall have any right of access to the information.

Article 8 Rates of Pay

8.1 Pay Periods

The pay periods and pay dates will be as follows:

Pay Period	Pay Date
1st through 15th	25th
16th through end of month	10th

Employees will be paid a monthly salary which shall be split equally between the two (2) pay periods. Timesheets submitted in error will be corrected on the following pay check.

8.2 Salary Step Plan

8.2.1 Effective January 1, 2026: 3.5% increase

Effective January 1, 2027: 3% increase

Effective January 1, 2028: 3% increase

8.2.2 Newly Hired or Rehired Employees
Employees will move through the defined salary steps on an annual basis, based on adjusted salary review date. For example, if an employee is hired between the first (1st) and the fifteenth (15th) of the month, the pay adjustment would be on the first (1st) day of the current month. If an employee is hired between the sixteenth

(16th) and the end of the month, the adjustment would be on the first (1st) day of the following month.

8.2.3 Promoted Employees

At the time of promotion (defined as voluntarily applying for and accepting a position in a higher pay range), employees will move to the step in the range of the new classification which results in an increase of at least 5% (but not above the top of the new pay range). Upon successful completion of a promotional probationary period, the employee's salary shall then be increased to the next step of the new range on the adjusted salary review date and annually thereafter, up to the top of the range. In no event shall a promoted employee's salary be less than the starting pay of the salary range of the new classification.

8.2.4 Demoted Employees

Employees who voluntarily demote (defined as voluntarily applying for and accepting a position in a lower pay range) will be placed at the step in the appropriate pay range for the new classification that results in the least amount of pay reduction (but not above the top of the new pay range). If an employee is not at the top step, their next step date will be one year from the demotion date.

For example, an employee is currently at step 3 and is eligible for step 4 on November 1st, but they voluntarily demote to a new position on August 1st. Their next step date will be reset to one year later, August 1st and each August 1st thereafter until reaching the top step.

8.2.5 Flexibly Staffed Positions

Flexibly staffed positions are classifications that allow the City to hire individuals who lack one of the required qualifications (such as ICC Fire Plans Examiner or years of experience) at a lower level, but allow a stated period to obtain the needed requirement. Upon attainment of the needed requirement, the individual's position is moved to the higher classification. Flexibly staffed positions may be filled at the I or II level, depending on the applicant's training and/or experience. If filled at a lower level, movement to the higher level will occur at the time the employee meets the minimum qualifications of the higher job class. An example is the Deputy Fire Marshal I/II classification. At the time the employee obtains the required qualification and is moved to the higher classification, the employee will move to the step in the range of the higher classification which results in an increase of at least 5%. The employee's next eligibility for a step increase is one

year from the date the employee moves to the higher classification and annually thereafter up to the top of the new range.

8.2.6 Probationary Period

A newly hired or rehired employee to the Vancouver Fire Department Guild bargaining unit is subject to a twelve (12) month probationary period. The probationary period for new employees may be extended with notification to the Guild. The Employer may discipline or discharge any newly hired or rehired employee at any time during the probationary period with or without cause, and such discipline or discharge shall not be subject to appeal.

Promotions and voluntary demotions are subject to a six (6) month probationary period. The probationary period for a promotion/demotion may be extended with notification to the Guild, for a maximum of six (6) additional months. In the event an employee does not successfully complete a promotion/demotion probationary period, the employee will be assigned to the employee's original position (if vacant) or to another vacant position for which they are qualified in the same class as, and at the same salary level as, the employee's original position. If the original position is not available, and no other vacant position is available meeting the applicable criteria in this Article, the employee will be placed on a reinstatement list for their original position or classification for twenty-four (24) months. Nothing in this section shall restrict the rights of the employee as defined in Article 8.

Promotion is defined as the following:

a. Deputy Fire Marshal I or II to Lead Deputy Fire Marshal
b. Fire Code Officer to Deputy Fire Marshal I

Promotion does not include the progression from Deputy Fire Marshal I to Deputy Fire Marshal II.

8.3 Overtime

The Employer will attempt to meet its overtime requirements on a voluntary basis among the employees and in the event there are insufficient volunteers to meet the requirements, the employer may require the necessary employees to work.

Scheduled overtime is defined as overtime hours scheduled at least eight (8) hours in advance of the end of the regular work shift preceding the overtime period. Any overtime scheduled under this Article shall be paid at a rate of one-and-one-half (1 ½) times the employee's regular base rate, during which time the Employer may provide and require work of the

employee. Unscheduled overtime will be paid under the provision of Article 8.4 Callback Pay.

8.4 Callback Pay

Employees who have completed their regular work shift, are on their way home, or at home, and are not scheduled for overtime (as set forth in Article 8), shall be paid at double their regular base rate. Any call-back pay shall be for a minimum of two (2) hours, during which time the Employer may provide and require work of the employee called back.

Overtime and Callback Pay will be compensated rounding up to the nearest quarter hour.

8.5 Working Out-of-Class

An employee who is temporarily assigned the duties of a higher level position shall be paid at a rate of five percent (5%) above their current rate of pay, provided that each of the following conditions are met:

A. The position is currently vacant OR the employee normally filling the position is on authorized leave OR the employee normally assigned to the position has been temporarily relieved of their regular duties to complete a special project approved by the fire chief or their designee.

B. The employee is formally assigned to perform, and actually performs, duties of the higher job class which are not within the normal duties of the employee's regular job class. Formal assignment must include a written directive from the employee's supervisor.

C. The employee is so assigned and actually works the assignment for a period of more than thirty five (35) consecutive working hours. If the employee is so assigned and actually works the assignment for a period of more than thirty five (35) hours, the out-of-class pay shall be retroactive for the first hour of that specific assignment. When an employee assumes the supervisory duties as outlined in this section, this shall not be considered an acting appointment to the position of Fire Marshal.

8.6 Compensatory Time

At the Employer's option, compensating time off at the applicable premium rate may be accrued in lieu of overtime or callback pay. Compensating time off may accumulate not to exceed forty eight (48) hours. All accrued unused compensatory time will be paid out at the time of separation.

Employees will be allowed to use accrued compensatory time off by mutual agreement with their supervisor, and subject to any restrictions for such use established under the Fair Labor Standards Act (FLSA).

8.7 On-Call Status

A. On-call employees shall wear electronic alerting device on during their hours away from work, and when alerted, shall call CRESA dispatch as soon as possible, but no later than fifteen (15) minutes, notifying receipt of the alert and providing an estimate of arrival time. The employee shall arrive at the fire station assigned by the Fire Marshal within 60 minutes of their return notification to CRESA.

For instances where the occasional total response exceeds one (1) hour, the supervisor may grant an exception, based upon the totality of the circumstances for not arriving within one (1) hour.

B. On-call employees shall be compensated at a flat rate of $50.00 per day.

C. On-call employees shall be compensated at the rate set forth in 8.4 for time spent responding to off-duty call outs from the time the employee responds in the assigned City of Vancouver on-call vehicle. Compensation will be for a minimum of two hours during which time the employer may provide and require work of the employee called back.

D. On-call employees shall be assigned a vehicle for response. The vehicle shall only be utilized for City of Vancouver assignments and shall not leave Clark County except as directed and approved by the Fire Marshal. If an employee lives outside Clark County, the on-call vehicle shall be parked at the fire station assigned by the Fire Marshal during on-call hours.

E. Current and future employees must reside within a 60 minute response time, as calculated by Google maps, to the fire station assigned by the Fire Marshal, or other mutually agreed to location.

F. No more than one person may be on-call on any day unless previously approved by the Fire Marshal or their designee.

8.8 Telephone Calls at Home After Hours
Employees authorized by the Fire Marshal on subjects authorized by the Fire Marshal, who are required by the employer to answer work-related questions by telephone when they are not at work shall be paid for time

actually spent on the telephone at the rate of one-and-one-half (1 ½) their normal base rate calculated to the nearest quarter-hour, with a quarter-hour minimum.

Article 9 Leave Benefits

9.1 Personal Time Off (PTO)
Employees may begin using accrued PTO hours as soon as the hours are earned in the PTO bank. PTO hours accrued in a pay period cannot be used in the same pay period in which time earned, i.e., PTO hours accrued in the 1st through the 15th pay period cannot be used until the 16th through the end of the month pay period and so forth.

An employee shall be paid for earned and accrued PTO hours, up to the number of hours denoted in Appendix B, at the employee's current rate of pay when they separate employment.

Provisions for Scheduled and Unscheduled PTO not covered in this agreement will follow policy.

9.2 Whenever an employee is involved in an investigation or enforcement lasting more than four (4) hours between 10:00 pm and 7:30 am on a Sunday through Thursday night, in lieu of overtime, the employee may use up to a six (6) hour period of compensatory time to be used for downtime during the next work day.

Article 10 Holidays

10.1 The following days are recognized as legal paid holidays for which time off are to be granted:

New Year's Day – January 1
Martin Luther King's Birthday – Third Monday in January
President's Day – Third Monday in February
Memorial Day – Last Monday in May
Juneteenth – June 19
Independence Day – July 4
Labor Day – First Monday in September
Veteran's Day – November 11
Thanksgiving Day – Fourth Thursday in November
Native American Heritage Day – Fourth Friday in November
Christmas Day – December 25

Article 11 Employee Insurance

Employees covered by this agreement will be provided insurance benefits as follows:

11.1 Life Insurance

Each employee shall receive a life insurance policy in an amount equal to 100% of the employee's annual salary, rounded to the next higher multiple of $1,000. In addition, employees shall have the option of choosing dependent and/or additional life insurance on a payroll deduction basis.

11.2 Long Term Disability
Regular and full-time and half-time bargaining unit employees will be covered by a city-paid group long-term disability insurance policy.

11.3 Health Insurance

A. Employees and their eligible dependents will have the option of selecting any combination of medical, vision and dental coverage from the following. Based on medical plan selection accompanying vision coverage may be required.

a. **Medical**

i. HMO Plan
ii. HMO Plan – CDHP (Consumer Driven Health Plan)
iii. PPO Plan
iv. PPO Plan – CDHP (Consumer Driven Health Plan)

b. **Dental**

i. HMO Plan
ii. PPO Plan

B. **Consumer Driven Health Plans (CDHP)**

a. CDHP's include a Health Savings Account (HSA) as allowable by law.
   i. The City will make a contribution to the Employee's HSA in the following amounts (amounts are pro-rated based on enrollment date:)
      1. Employee-only coverage - $1,600
      2. Employee plus one or more dependents - $3,200

b. Employees may also contribute pre-tax dollars to their HSA up to the limits allowed by law.

C. **Premiums**

City contribution will increase up to 5% of any increasing premium costs. This means the City will pay up to the first 5% of any increasing premium cost plus the City's previous year's premium sharing amount. The employee's share would be the previous year's premium sharing amount plus any premium costs above 5%.

D. In addition, members have an opt-out/cash-back option for eligible employees upon certification of other group coverage.

E. Flexible Spending Account (FSA).

a. For employees enrolled in a non-CDHP plan, employees will have the option of participating in a healthcare or dependent care FSA.

b. For employees enrolled in a CDHP plan, employees will have the option of participating in a FSA for dependent care costs.

11.4 It is understood that the type and level of benefits available under the City's health plan may be changed from time to time by the carriers, and the City shall not have a duty or obligation to negotiate over such changes with the Guild. Additionally, the City retains the right to change health plan providers as long as the new plan provides a comparable level of benefits as negotiated in this contract.

11.5 Dental Insurance
The City will pay 100% of the employee and eligible dependent cost for basic dental insurance for the term of this agreement.

11.6 All employee premiums will be paid using pre-tax dollars under the City's flexible benefits plan unless an employee selects the post-tax option.

11.7 Medical, vision and dental insurance premiums for regular part-time employees shall be paid by the Employer in the same portion as detailed in 11.3 above, and pro-rata, based on the employee's budgeted FTE (full-time equivalent).

Article 12 Retirement Plan

12.1 All eligible employees and the employer shall participate in the Washington Public Employees Retirement System (PERS) to the extent provided for by Washington state law.

Article 13 Clothing

13.1 The employer shall provide to all personnel all safety equipment and uniform equipment deemed necessary by the employer.

The employer will provide, repair or replacement of the above on an as needed basis, as determined by the employer. When a part of the uniform has been determined to be in need of replacement, the employer will provide the replacement within a reasonable period of time.

Article 14 Grievance Procedure

14.1 The City and the Guild desire that all employees be treated fairly and equitably. It is intended that this grievance procedure will provide a means of resolving grievances at the lowest possible level.

14.2 Grievance Definition: A grievance is defined as a dispute raised by an employee concerning the interpretation or application of a section(s) of this Agreement. Grievances shall be settled as provided for in this Article, and aggrieved employees shall have all rights guaranteed them by RCW 41.56.080 pertaining to grievances.

Representation: In the grievance procedure, the aggrieved individual employee shall have the right, as guaranteed by RCW 41.56.080 to represent themselves or be represented by their Guild representative. In addition, the Guild has the right in its own capacity to act as an aggrieved party in the grievance procedure. Only the Guild, on its own behalf or on behalf of an employee(s), may pursue a grievance to arbitration.

14.3 Grievance Procedure.

14.3.1 Informal Resolution. An employee or Guild representative who believes the terms and conditions of this Agreement have been violated shall first discuss the matter with the person who took the action giving rise to the belief and attempt to reach an informal resolution of the matter.

Step 1. Regardless of the status of any informal discussions to resolve the grievance, within twenty-one (21) calendar days of the date upon which the employee, by due diligence, could reasonably have been expected to know of the events giving rise to the grievance (but in no event more than (60) sixty calendar days from the event), the aggrieved employee and/or Guild representative will submit the grievance in writing to the Chief or designee. The written grievance will include a review of the facts, including the specific section(s) violated, the names of all known

witnesses, and the remedy requested. The Fire Chief or designee shall submit a written decision to the grievance within twenty-one (21) calendar days from their receipt of the grievance.

Step 2. Provided the grievance is not settled satisfactorily in Step 1, the employee and/or the Guild representative shall submit the grievance within fourteen (14) calendar days to the Fire Chief or designee. The Fire Chief or designee will submit a decision in writing within fourteen (14) calendar days.

Step 3. Provided the grievance is not settled satisfactorily in Step 2, the employee and/or the Guild representative shall submit the grievance within fourteen (14) calendar days to the City Manager or designee. The City Manager or designee will submit a decision in writing within fourteen (14) calendar days.

14.3.2 If the grievance is not settled satisfactorily, the Guild may pursue the matter to arbitration by giving written notice to the City Manager or designee within fourteen (14) calendar days.

14.4 Arbitration Procedure.

14.4.1 The parties may mutually agree upon an arbitrator. In the event that no such agreement is reached within seven (7) calendar days of the Guild's arbitration notice, the Guild will request a list of seven (7) arbitrators from Washington and/or Oregon provided by the American Arbitration Association or from any other mutually agreed source. Within fourteen (14) calendar days following the receipt of the list of eligible arbitrators, the parties' representatives shall meet or confer to select an arbitrator. The parties shall each strike three (3) arbitrators from the list in an alternating order, and the remaining arbitrator shall hear the dispute. The party exercising the first strike shall be the loser of a flip of a coin.

14.4.2 The arbitrator shall promptly establish a date, time and place for a hearing and shall provide reasonable notice thereof to the parties to the dispute. A hearing, which shall be informal, shall be held, and each party shall have the opportunity to present evidence and make argument. The rules of evidence prevailing in a judicial proceeding may be considered, but are not binding, and any oral testimony or documentary evidence or other data deemed relevant by the arbitrator may be received in evidence.

14.4.3 The arbitrator shall make a written finding of fact and a written determination of the issues in dispute, based on the evidence presented. A copy thereof shall be served on each of the parties to the dispute. The decision of the arbitrator shall be final and binding upon both parties, subject to review by the Superior Court upon application of either party only upon an assertion that the decision was arbitrary or capricious, or exceeded the arbitrator's authority.

14.4.4 The arbitrator shall have no power to render a decision that will add to, subtract from, or alter, change or modify the terms of this Agreement.

14.4.5 Unless otherwise agreed by the parties, challenges to the procedural arbitrability of a grievance shall be resolved in a proceeding separate from and prior to arbitration on the merits of the grievance. Within fourteen (14) calendar days following receipt of an arbitrator's decision ruling that a challenged grievance is subject to arbitration, the parties will begin the process described in Section 17.4.1 to select an arbitrator to rule on the merits of the grievance.

14.4.6 The fees and expenses of the arbitrator and the cost of a written transcript for the arbitrator, if prepared, shall be shared equally between the Guild and the Employer. Each party shall be responsible for all expenses of presenting its own case, for compensating its own lawyers, representatives and witnesses, and for purchasing its own copy of any written transcript.

14.5 Time Limits. All time limits in this Article may be extended by mutual written agreement. Should the grievant or Guild fail to comply with any of the stated time limits, unless mutually agreed to extend, in writing, such grievance shall be deemed abandoned. Should the Employer fail to comply with any of the stated time limits, the grievance will be automatically advanced to the next step.

Article 15 Employee Discipline/Termination

15.1 The employer may, in good faith or for cause, take disciplinary action by written reprimand, suspension, demotion or discharge. The employee shall be provided a letter setting forth the reason(s) for such action at the time such action is taken or shortly thereafter. Employees shall be given the opportunity to read and answer all disciplinary letters or performance evaluations before placement of such material into their personnel file and will be requested to sign such letters. Signature thereon shall not be construed as admission of guilt or concurrence with the reprimand, but rather an indication that they have seen and comprehend the gravity of the

disciplinary action. A copy of the letter will be provided to the Guild upon authorization by the employee.

15.2 It is agreed by both parties that no entries may be made to an employee's personnel file from anonymous sources without substantive evidence.

Article 16 Layoff and Reinstatement

16.1 Layoff Procedure

Layoffs or reductions-in-full time equivalent (FTE) positions may be undertaken by the City due to budgetary reductions, organizational restructuring, lack of work, reduction or elimination of funds, material change in duties or organization, reduction in force or workload, or in the interests of economy or efficiency.

After the City has identified the job classification being reduced, layoffs and reduction-in-force will be made in the following order:

i. Temporary employees
ii. Newly hired probationary employees
iii. Promotional probationary employees
iv. Regular employees

The order in which employees will be laid off shall be determined based on seniority as defined in 16.2 of this Article.

16.2 Seniority

Seniority for the purposes of layoff, reduction, reinstatement, and bumping shall be based upon bargaining unit seniority for all members covered under this Agreement. Bargaining unit seniority shall be determined by the ranking outlined in the Vancouver Fire Department Fire Marshal's Office seniority list as published through Civil Service.

16.3 Notice to Guild

Representatives of the City shall notify the Guild within fourteen (14) calendar days after the City has officially determined that a layoff or reduction-in-FTE will affect any of the Guild members. After such notification, the City agrees to meet with the Guild, if requested, and to inform the Guild of the details of the layoff and provide a current seniority list as well as any other relevant information. This meeting shall occur prior to notifying the employee(s) selected for reduction or elimination.

16.4 Notice to Employees

Each employee to be laid off or to have an FTE reduction shall be given at least thirty (30) calendar days' notice of layoff, with a copy to the Guild. Employees who remain may be assigned the additional duties of those lower classified positions that were laid off or reduced.

16.5 Bumping
When an Employee is identified for a layoff or reduction-in-force, they shall be permitted to bump into a job or classification which they currently hold or have previously held, provided that the employee meets the minimum qualifications for the job. At the time of bumping the employee must have the training and certifications necessary to fulfill the duties and functions of the positions. In doing so, they may "bump" the least senior employee in that job or classification within the bargaining unit. Bumping may only occur within the same bargaining unit.

16.6 Once the City has notified the affected employee of layoff and there is an available vacant position or a position for the employee to bump into, they must notify Human Resources in writing of their intent to accept a vacant position or exercise bumping rights within fourteen (14) calendar days of the initial layoff notice. If notification is not received within the allotted time, rights to vacant positions or to bump shall be waived by the Employee. The Employee will subsequently be placed on the reinstatement list.

16.7 An Employee who bumped into a new position as an alternative to layoff and who fails to perform the functions of the new position during probation will be placed on the reinstatement list. Such employees will only be eligible for reinstatement to the position from which they were originally laid off. Failure to pass probation for reasons other than performing the functions of the new position will result in termination in accordance with Article 15.

16.8 Reinstatement
Employees who have been laid off are eligible for recall for a period of twenty-four (24) months following the date of layoff or reduction in FTE. The names of persons laid off will be placed on one reinstatement list. When a vacancy occurs in the same job classification for which there exists a reinstatement list, the City will fill the vacancy using that list with the understanding that employees must meet the required minimum qualifications and requisite background and medical screening for the position to which they would be reinstated. If there is more than one employee on the reinstatement list eligible for a vacancy in a particular job class, the City will use seniority as defined in Article 16.2 to determine who shall be offered reinstatement. Reinstatement notices will be sent by certified mail to the last address reflected in the employee's official personnel file.

16.9 Once an employee on the reinstatement list is offered reinstatement, the employee must respond within fourteen (14) calendar days of the date of the notice, unless extended by mutual consent. The employee shall be

responsible for notifying the Human Resources Department of any change in their address or telephone number, while on layoff status.

Benefit accrual and service credit will be discontinued while in a layoff status of thirty (30) or more days.

Article 17 Cross Jurisdictional Agreement

17.1 IAFF Local 452 Suppression uniformed members assigned light duty work may perform FMO work at the direction of the Fire Marshal.

17.2 Assigned light duty work for IAFF Local 452 Suppression uniformed members shall not result in any reduction of staff covered by this agreement.

17.3 Assigned light duty IAFF Local 452 Suppression shall not fill any vacant positions covered by this agreement, even on a temporary basis.

17.4 Other work options by non-Guild members may be determined by mutual agreement of the Guild and the City.

Article 18 Conflict of Contract and City Employment Policies

18.1 It is agreed that the intention of the parties to this agreement is that this agreement and all working agreements shall be consistent with the City Employment policies and that where it is found that the provisions of such an agreement are in conflict with the City Employment policies that the language of the agreement shall control.

18.2 Employees represented by this contract will be under the City's Employment Policy Manual. It is the intent that departmental rules shall be superseded by the City's Employment Policy Manual. If a situation occurs in which there is a difference between City rules/policies, and those of the department, Human Resources will meet with the Guild and the affected department to reach a mutually agreeable solution.

Article 19 Separability Clause

19.1 In the event that any provision of this agreement shall be determined to be illegal or in violation of any federal or state law or regulation, whether by judicial or administrative determination, that portion of the contract shall be deemed excised from this agreement and all other portions unless dependent upon excised portions shall remain in full force and effect.

Article 20 Past Practice Clause

20.1 This Agreement constitutes the entire agreement between the parties, and it supersedes any prior written or oral agreements between the parties.

Any past practice whether written or oral, is null and void, unless specifically preserved in this Agreement.

Article 21 Bargaining of Mandatory Subjects

21.1 Except as permitted in this Agreement or by applicable law, the City will satisfy its collective bargaining obligation before changing a matter that is a mandatory subject. The City will notify the Guild of the proposed changes and the Guild may request discussions about and/or negotiations on the impact of these changes on employee's working conditions. In the event the Guild does not request discussions and/or negotiations within fourteen (14) calendar days, the City may implement the changes without further discussions and/or negotiations; provided that the Guild may request an extension of the timeline in this section which will not be unreasonably denied. There may be emergency or mandated conditions that are outside of the City's control requiring immediate implementation, in which case the City will notify the Guild as soon as possible.

Article 22 Appendices and Amendments

22.1 All appendices, amendments shall be lettered, dated and signed by the responsible parties and shall be subject to all provisions of this agreement.

A. The parties agree that this Agreement may be amended in writing as agreed to by both parties without action of their respective legislative bodies, unless otherwise specified herein, including, but not limited to, amendment by Memorandum of Understanding or Memorandum of Agreement.

Article 23 Termination and Renewal

23.1 This agreement is effective upon ratification by both parties and shall remain in full force and effect through December 31, 2028.

Dated this _____ day of _____, 2025.

For the Employer

_____
Lon Pluckhahn, City Manager

_____
Nathan Leek, Interim Fire Chief

_____
Antoinette Gasbarre, Human Resources Director

Approved as to form:

_____
Nena Cook, City Attorney

Attest:

_____
Natasha Ramras, City Clerk

For the Guild

_____
Andrew Jorgenson, President

_____
Shane LaBeck, Secretary-Treasurer

Appendix A

Rates of Pay

Vancouver Fire Department Guild Salary Schedule January 1, 2026 - December 31, 2026										
Job Class Title	Range Number	Type Rate	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8
Fire Code Officer 1	10	MO.	7,004	7,252	7,504	7,770	8,039	8,322	8,610	8,960
		YR.	84,048	87,024	90,048	93,240	96,468	99,864	103,320	107,520
		HR.	40.408	41.838	43.292	44.827	46.379	48.012	49.673	51.692
Deputy Fire Marshal 1	12	MO.	7,358	7,618	7,885	8,164	8,446	8,745	9,047	9,413
		YR.	88,296	91,416	94,620	97,968	101,352	104,940	108,564	112,956
		HR.	42.450	43.950	45.490	47.100	48.727	50.452	52.194	54.306
Deputy Fire Marshal 2	16	MO.	8,122	8,408	8,702	9,011	9,321	9,651	9,985	10,389
		YR.	97,464	100,896	104,424	108,132	111,852	115,812	119,820	124,668
		HR.	46.858	48.508	50.204	51.987	53.775	55.679	57.606	59.937
Lead Deputy Fire Marshal *	19	MO.	8,748	9,055	9,371	9,703	10,037	10,393	10,752	11,189
		YR.	104,976	108,660	112,452	116,436	120,444	124,716	129,024	134,268
		HR.	50.469	52.240	54.063	55.979	57.906	59.960	62.031	64.552
Deputy Fire Marshal Supervisor **Fire Protection Engineer**	22	MO.	9,420	9,751	10,091	10,449	10,810	11,192	11,580	12,048
		YR.	113,040	117,012	121,092	125,388	129,720	134,304	138,960	144,576
		HR.	54.346	56.256	58.217	60.283	62.365	64.569	66.808	69.508

* Position will be removed with approval of Deputy Fire Marshal Supervisor position.

Vancouver Fire Department Guild Salary Schedule January 1, 2027 - December 31, 2027										
Job Class Title	Range Number	Type Rate	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8
Fire Code Officer 1	10	MO.	7,214	7,470	7,729	8,003	8,280	8,572	8,868	9,229
		YR.	86,568	89,640	92,748	96,036	99,360	102,864	106,416	110,748
		HR.	41.619	43.096	44.590	46.171	47.769	49.454	51.162	53.244
Deputy Fire Marshal 1	12	MO.	7,579	7,847	8,122	8,409	8,699	9,007	9,318	9,695
		YR.	90,948	94,164	97,464	100,908	104,388	108,084	111,816	116,340
		HR.	43.725	45.271	46.858	48.513	50.187	51.963	53.758	55.933
Deputy Fire Marshal 2	16	MO.	8,366	8,660	8,963	9,281	9,601	9,941	10,285	10,701
		YR.	100,392	103,920	107,556	111,372	115,212	119,292	123,420	128,412
		HR.	48.265	49.962	51.710	53.544	55.390	57.352	59.337	61.737
	19	MO.	9,010	9,327	9,652	9,994	10,338	10,705	11,075	11,525
		YR.	108,120	111,924	115,824	119,928	124,056	128,460	132,900	138,300
		HR.	51.981	53.810	55.685	57.658	59.642	61.760	63.894	66.490
Deputy Fire Marshal Supervisor **Fire Protection Engineer**	22	MO.	9,703	10,044	10,394	10,762	11,134	11,528	11,927	12,409
		YR.	116,436	120,528	124,728	129,144	133,608	138,336	143,124	148,908
		HR.	55.979	57.946	59.965	62.088	64.235	66.508	68.810	71.590

Vancouver Fire Department Guild
Salary Schedule January 1, 2028 - December 31, 2028

Job Class Title	Range Number	Type Rate	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8
Fire Code Officer 1	10	MO.	7,430	7,694	7,961	8,243	8,528	8,829	9,134	9,506
		YR.	89,160	92,328	95,532	98,916	102,336	105,948	109,608	114,072
		HR.	42.865	44.388	45.929	47.556	49.200	50.937	52.696	54.842
Deputy Fire Marshal 1	12	MO.	7,806	8,082	8,366	8,661	8,960	9,277	9,598	9,986
		YR.	93,672	96,984	100,392	103,932	107,520	111,324	115,176	119,832
		HR.	45.035	46.627	48.265	49.967	51.692	53.521	55.373	57.612
Deputy Fire Marshal 2	16	MO.	8,617	8,920	9,232	9,559	9,889	10,239	10,594	11,022
		YR.	103,404	107,040	110,784	114,708	118,668	122,868	127,128	132,264
		HR.	49.713	51.462	53.262	55.148	57.052	59.071	61.119	63.588
	19	MO.	9,280	9,607	9,942	10,294	10,648	11,026	11,407	11,871
		YR.	111,360	115,284	119,304	123,528	127,776	132,312	136,884	142,452
		HR.	53.538	55.425	57.358	59.388	61.431	63.612	65.810	68.487
Deputy Fire Marshal Supervisor	22	MO.	9,994	10,345	10,706	11,085	11,468	11,874	12,285	12,781
Fire Protection Engineer		YR.	119,928	124,140	128,472	133,020	137,616	142,488	147,420	153,372
		HR.	57.658	59.683	61.765	63.952	66.162	68.504	70.875	73.737

Appendix B

Employee Personal Time Off (PTO) Accrual Schedule

EMPLOYEE PAID TIME OFF (PTO) ACCRUAL SCHEDULE Based on an 8-hour day						
Year of Service	**Hours Per Month**	**Days Per Year**	**Maximum Payout at Separation Hours / Days**		**Maximum Accumulation Hours/Days**	
0 to 2	15	22.5	360	45	528	66
2+ to 5	18.34	27.5	440	55	608	76
5+ to 10	20.34	30.5	488	61	656	82
10 + to 15	22.34	33.5	536	67	704	88
15+ to 20	24.34	36.5	584	73	752	94
20+	26.34	39.5	632	79	800	100

Appendix C

Temporary or Seasonal Workers

"Temporary or seasonal worker" for purposes of this contract shall mean one who is hired to work not more than 1,040 hours in any one specific classification in one specific department in any twelve (12) consecutive month period. Exceptions to this policy shall be mutually agreed upon by the Employer and the Guild. The Employer will not rotate temporaries through the same position.

The intended use of temporary or seasonal workers by the Employer is to cover seasonal workloads and to fill unexpected vacancies created by a sudden increased workload, termination or disabilities of regular full-time employees. It is acknowledged that there will be exceptions to this policy. Exceptions to this policy shall be mutually agreed upon by the Employer and the Guild.

The Employer will make all records of temporary or seasonal workers, the date they started, and total hours worked, available to the Guild upon request.

Appendix D

Use of Fire Corps Volunteers

Any training and/or education materials utilized in the Fire Corps Volunteer program shall be pre-approved by the Fire Marshal. Fire Corps Volunteer training, special events and/or other public outreach activities and public education curriculum, shall be under the direct supervision of a Vancouver Fire Department Guild member. Other Fire Corps Volunteer supervisory arrangements may be determined upon mutual agreement between the Guild and the employer.

Any proposals for new activities will be collaboratively discussed between the City and the Guild.

AGREEMENT

By and Between
The City of Vancouver
and
The Vancouver Fire Department Guild

January 1, 2026-December 31, 2028

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Fire Department Guild Agreement

The City of Vancouver and Vancouver Fire Department Guild (the Guild) recognize that the public interest requires the efficient and uninterrupted performance of Fire Department services, and to this end, pledge their best efforts to avoid or eliminate any conduct contrary to that objective. This agreement is an attempt to put in writing wages, hours and other conditions of employment.

The City of Vancouver and the Guild agree that the provisions of this agreement shall be applied equally to all employees covered hereby without regard, to race, color, creed, religion, sex (including gender identity, sexual orientation, and pregnancy), national origin, citizenship or immigration status, age (40 or older), the presence of any sensory, mental, or physical disability or the use of a trained dog guide or service animal by a person with a disability, genetic information, honorably discharged veteran or military status, or any other class protected by federal, state, or local employment discrimination laws.

Article 1 Guild Representation

1.1 The employer recognizes the Guild as the exclusive bargaining agent for the Lead Deputy Fire Marshal, Deputy Fire Marshal I and II, Fire Code Officer, and Fire Protection Engineer classifications.

1.2 The Employer and the Guild agree that questions of Guild representation that may arise shall be resolved in accord with rules of the Washington State Public Employment Relations Commission (PERC) and in accord with local, state or national statues and rules.

Article 2 Rights of Management

2.1 The right to manage the municipal corporation is vested exclusively in the employer and such right includes but is not necessarily limited to the right to organize, schedule hours, staff, assign work and direct the work force; to set standards of service to be offered to the public; to introduce any and all new, improved and automatic methods or equipment in order to improve efficiency and to reduce costs, and to assign employees within the bargaining unit in accordance with such improvements and cost reduction methods, provided that safe working conditions are maintained; to take action as may be necessary in emergencies (i.e., natural disasters or catastrophes); and to make and enforce rules and regulations. Except as specifically modified by or treated in this agreement, all policies, matters, questions and terms affecting unit employees in their employment relations with the employer shall be governed by such rules, policies, and procedures as the employer, from time to time, may implement. The employer agrees that the Guild will have an opportunity prior to implementation to provide comments and suggestions concerning the new departmental rules and regulations.

Article 3 Union Security

3.1 The parties agree that the terms of this Agreement apply equally to all employees in the bargaining unit and as defined in this Agreement. Any bargaining unit employee may authorize the Employer to take any of the following actions with respect to dues or fees:

A. Deduct from their pay the amount of the Guild membership dues charged by the Guild for representation and services provided by the Guild;
B. Deduct an amount certified by the Guild to be the 'fair share' fee for services provided by the Guild; or
C. Not deduct any due or fee; provided that an employee electing this option may be charged a reasonable fee for services requested by the employee for representation in grievance or arbitration procedures.

3.2 The Guild agrees to provide the employer with Guild dues deductions assignment forms for each employee who desires to pay their Guild dues/voluntary fair share fees by payroll deduction. The employer will deduct such dues/fair share fees from the wages of those employees and forward them to the Guild each month.

3.3 In the event an employee covered by the bargaining unit notifies the Employer that they no longer wish to have dues or fees deducted from their pay, the Employer shall notify the Guild of the notification within five (5) working days.

3.4 The Guild shall indemnify, defend and hold the City harmless from all suits, actions, proceedings or claims against the City or persons acting on behalf of the City, whether for damages, compensation, reinstatement or any combination thereof, arising out of application of this Article. In the event any decision is rendered by the highest court having jurisdiction that any portion of this article is invalid and/or that reimbursements must be made to any employees affected, the Guild shall be solely responsible for such reimbursements.

Article 4 Union Representatives and Union Activity

4.1 The Guild shall inform the Employer in writing of the name of its officers and business representatives who are accredited to represent the Guild, which information shall be kept up-to-date at all times. Only persons so designated will be accepted by the Employer as representatives of the Guild.

4.2 Guild representatives may, after receiving permission from their supervisor, visit the work location of employees covered by this Agreement, for the purpose of administering provisions of the agreement related to grievance processing, disciplinary action and posting of Guild notices on City provided bulletin boards.

4.3 Solicitation of Guild membership or collection or checking of dues will not be conducted during working hours other than as follows:

A. Guild representatives are allowed access to new employees at an agreed upon time by the City and the Guild for the purposes of informing the employee about the exclusive bargaining representative within the first ninety (90) days of the employee's start date; and
B. Guild representatives shall have access to new employees once for new employee orientation for no more than thirty (30) minutes; and
C. Access shall occur during the employee's regular working hours at the employee's regular worksite, unless otherwise agreed.

4.4 The Employer agrees not to discriminate against any member of the Guild for their activity on behalf of or membership in the Guild, provided such activity is not carried on during working hours, except as expressly provided in this agreement.

4.5 Employee officers of the Guild shall be allowed reasonable time away from their work assignment for the purposes of meetings with the City for collective bargaining, grievances or disciplinary hearings or such other legitimate activities as are mutually agreed upon between the Guild and the City. City employees participating in such meetings or activities will be allowed to do so without loss of pay if scheduled during said employee's regularly scheduled work time. If meetings or activities go beyond the regularly scheduled work time, then the employees shall be on their own time, not paid by the City.

For the purposes of attendance at the bargaining table, not more than three (3) on duty employees will be present when bargaining the master agreement.

4.5.1 Employee Guild representatives shall request permission from their immediate manager for time away from their work assignment. Such requests shall be granted provided the time away does not unreasonably detract from their work performance and is in compliance with the above requirements as to the nature of the activity. Time away from their work assignment to act in the role

of Guild representative shall be coded on their timesheet as "Union Leave".

4.5.2 Employee Guild representatives and affected employees shall be allowed time away from their work assignment for meetings with the City. A reasonable amount of prep and debrief time necessary for these meetings shall be allowed.

4.6 City work hours shall not be used by employees or the business representatives for the conduct of Guild business or the promotion of Guild affairs other than stated above.

4.7 The City shall provide bulletin board space for Guild notices in a conspicuous location where workers frequent regularly in each work area.

4.8 Use of City telephones or computers related to Guild business.

A. City telephones or computers use is allowed subject to the following:
   1. When such use is de minimis and incidental, such as arranging a meeting with a Guild representative.
   2. For the purpose of conducting an investigation of a grievance, such as individual inquiries to co-workers.
   3. For the purpose of interacting with the City's representatives concerning Guild-City business, such as setting dates for City-Guild meetings, making inquiries regarding grievances, etc.

B. The uses cited in 4.8(A) may continue only if they incur no additional cost to the City. The content of any and all communications using the City computer system is not privileged and may be subject to City review.

Article 5 Work Week, Hours of Work, and Schedule

5.1 The work period is defined as the timetable between 12:00 a.m., Sunday through 11:59 p.m. the following Saturday. The work week shall be Monday through Friday, 8:00 a.m. to 5:00 p.m. (not to exceed forty (40) hours, excluding lunch periods.) Alternative work schedules may be determined by mutual agreement of the Guild and the employer.

5.2 Rest Periods – Each employee shall be given a 20-minute paid rest period in the first half of the working shift and a 20-minute paid rest period in the second half of the working shift, and an unpaid lunch period of not less than thirty (30) minutes or more than sixty (60) minutes (during the shift).

Article 6 Strikes, Work Stoppages and Work Slowdowns

6.1 The Employer and the Guild signatory to this agreement agree that the public interest requires the efficient and uninterrupted performance of all city services, and to this end, pledge their best efforts to avoid or eliminate any conduct contrary to this objective. The Guild and/or the employers covered by this agreement shall not cause or engage in any work stoppage, strikes, slowdown or other interference with employer functions, nor shall the city institute a lockout. In the event that a strike, boycott, slowdown, mass sick call, work stoppage or other interruption of work occurs, the employer shall notify the Guild of the existence of such activity and request information from the Guild as to whether or not the activity has been authorized. The Guild, after immediately responding to the employer's request, will then proceed to make every reasonable effort to terminate the work interruption activity and induce the employees concerned to return to work so that service to the citizens of the City of Vancouver will not be affected. Employees shall not earn any benefits or wages whatsoever while they are engaged in such actions. In addition, employees who engage in, or encourage, such actions shall be subject to discipline and discharge.

Article 7 Medical Examinations

7.1 Fitness for Duty

The parties recognize that employees have the responsibility to report to work fit for duty.

To ensure physical and mental fitness, the employee may be required to provide the Employer a fully completed certification from a medical and/or psychological provider on a City-provided form of the employee's fitness to perform the specific duties of their job or light duty alternative before returning to work.

The Employer also has the right to send employees for medical and/or psychological examinations at the City's expense for additional certification of fitness for duty whenever the Employer reasonably believes that the employee is not fit for duty or may be a danger to themselves or others.

A. Should the findings of the employer requested medical and/or psychological exam have an adverse effect on the employee's employment, the employee will have an opportunity, at their sole discretion and expense, for a second examination.

The City shall comply with all applicable medical records confidentiality laws associated with any employee medical information.

7.2 Wellness Physicals

A. Participation in the annual wellness physicals set up by the City will be mandatory for the classifications of Deputy Fire Marshals I and II and

Lead Deputy Fire Marshal, whose job description includes fire investigation. Wellness screenings will be administered at the sole cost and discretion of the City.

B. The City will bear the costs of the annual wellness physicals and shall include but not be limited to:
   a. Bloodwork: Comprehensive Metabolic Panel, Lipid Panel, Complete Blood Count
   b. Electrocardiogram
   c. Treadmill Stress Test for those who are 40 years old and then every 5 years after the age of 40
   d. Urine Microanalysis

C. All information gathered as a result of the wellness testing process shall remain confidential between the medical and/or other service provider and the employee. Neither the City of Vancouver nor the Union shall have any right of access to the information.

Article 8 Rates of Pay

8.1 Pay Periods

The pay periods and pay dates will be as follows:

Pay Period	Pay Date
1st through 15th	25th
16th through end of month	10th

Employees will be paid a monthly salary which shall be split equally between the two (2) pay periods. Timesheets submitted in error will be corrected on the following pay check.

8.2 Salary Step Plan

8.2.1 Effective January 1, 2026: 3.5% increase

Effective January 1, 2027: 3% increase

Effective January 1, 2028: 3% increase

8.2.2 Newly Hired or Rehired Employees
Employees will move through the defined salary steps on an annual basis, based on adjusted salary review date. For example, if an employee is hired between the first (1st) and the fifteenth (15th) of the month, the pay adjustment would be on the first (1st) day of

the current month. If an employee is hired between the sixteenth (16th) and the end of the month, the adjustment would be on the first (1st) day of the following month.

8.2.3 Promoted Employees

At the time of promotion (defined as voluntarily applying for and accepting a position in a higher pay range), employees will move to the step in the range of the new classification which results in an increase of at least 5% (but not above the top of the new pay range). Upon successful completion of a promotional probationary period, the employee's salary shall then be increased to the next step of the new range on the adjusted salary review date and annually thereafter, up to the top of the range. In no event shall a promoted employee's salary be less than the starting pay of the salary range of the new classification.

8.2.4 Demoted Employees

Employees who voluntarily demote (defined as voluntarily applying for and accepting a position in a lower pay range) will be placed at the step in the appropriate pay range for the new classification that results in the least amount of pay reduction (but not above the top of the new pay range). If an employee is not at the top step, their next step date will be one year from the demotion date.

For example, an employee is currently at step 3 and is eligible for step 4 on November 1st, but they voluntarily demote to a new position on August 1st. Their next step date will be reset to one year later, August 1st and each August 1st thereafter until reaching the top step.

8.2.5 Flexibly Staffed Positions

Flexibly staffed positions are classifications that allow the City to hire individuals who lack one of the required qualifications (such as ICC Fire Plans Examiner or years of experience) at a lower level, but allow a stated period to obtain the needed requirement. Upon attainment of the needed requirement, the individual's position is moved to the higher classification. Flexibly staffed positions may be filled at the I or II level, depending on the applicant's training and/or experience. If filled at a lower level, movement to the higher level will occur at the time the employee meets the minimum qualifications of the higher job class. An example is the Deputy Fire Marshal I/II classification. At the time the employee obtains the required qualification and is moved to the higher classification, the employee will move to the step in the range of the higher classification which results in an increase of at least 5%. The employee's next eligibility for a step increase is one

year from the date the employee moves to the higher classification and annually thereafter up to the top of the new range.

8.2.6 Probationary Period

A newly hired or rehired employee to the Vancouver Fire Department Guild bargaining unit is subject to a twelve (12) month probationary period. The probationary period for new employees may be extended with notification to the Guild. The Employer may discipline or discharge any newly hired or rehired employee at any time during the probationary period with or without cause, and such discipline or discharge shall not be subject to appeal.

Promotions and voluntary demotions are subject to a six (6) month probationary period. The probationary period for a promotion/demotion may be extended with notification to the Guild, for a maximum of six (6) additional months. In the event an employee does not successfully complete a promotion/demotion probationary period, the employee will be assigned to the employee's original position (if vacant) or to another vacant position for which they are qualified in the same class as, and at the same salary level as, the employee's original position. If the original position is not available, and no other vacant position is available meeting the applicable criteria in this Article, the employee will be placed on a reinstatement list for their original position or classification for twenty-four (24) months. Nothing in this section shall restrict the rights of the employee as defined in Article 8.

Promotion is defined as the following:

a. Deputy Fire Marshal I or II to Lead Deputy Fire Marshal
b. Fire Code Officer to Deputy Fire Marshal I

Promotion does not include the progression from Deputy Fire Marshal I to Deputy Fire Marshal II.

8.3 Overtime

The Employer will attempt to meet its overtime requirements on a voluntary basis among the employees and in the event there are insufficient volunteers to meet the requirements, the employer may require the necessary employees to work.

Scheduled overtime is defined as overtime hours scheduled at least eight (8) hours in advance of the end of the regular work shift preceding the overtime period. Any overtime scheduled under this Article shall be paid at a rate of one-and-one-half (1 ½) times the employee's regular base rate, during which time the Employer may provide and require work of the

employee. Unscheduled overtime will be paid under the provision of Article 8.4 Callback Pay.

8.4 Callback Pay

Employees who have completed their regular work shift, are on their way home, or at home, and are not scheduled for overtime (as set forth in Article 8), shall be paid at double their regular base rate. Any call-back pay shall be for a minimum of two (2) hours, during which time the Employer may provide and require work of the employee called back.

Overtime and Callback Pay will be compensated rounding up to the nearest quarter hour.

8.5 Working Out-of-Class

An employee who is temporarily assigned the duties of a higher level position shall be paid at a rate of five percent (5%) above their current rate of pay, provided that each of the following conditions are met:

A. The position is currently vacant OR the employee normally filling the position is on authorized leave OR the employee normally assigned to the position has been temporarily relieved of their regular duties to complete a special project approved by the fire chief or their designee.

B. The employee is formally assigned to perform, and actually performs, duties of the higher job class which are not within the normal duties of the employee's regular job class. Formal assignment must include a written directive from the employee's supervisor.

C. The employee is so assigned and actually works the assignment for a period of more than thirty five (35) consecutive working hours. If the employee is so assigned and actually works the assignment for a period of more than thirty five (35) hours, the out-of-class pay shall be retroactive for the first hour of that specific assignment. When an employee assumes the supervisory duties as outlined in this section, this shall not be considered an acting appointment to the position of Fire Marshal.

8.6 Compensatory Time

At the Employer's option, compensating time off at the applicable premium rate may be accrued in lieu of overtime or callback pay. Compensating time off may accumulate not to exceed forty eight (48)

hours. All accrued unused compensatory time will be paid out at the time of separation.

Employees will be allowed to use accrued compensatory time off by mutual agreement with their supervisor, and subject to any restrictions for such use established under the Fair Labor Standards Act (FLSA).

8.7 On-Call Status

A. On-call employees shall wear electronic alerting device on during their hours away from work, and when alerted, shall call CRESA dispatch as soon as possible, but no later than fifteen (15) minutes, notifying receipt of the alert and providing an estimate of arrival time. The employee shall arrive at the fire station assigned by the Fire Marshal within 60 minutes of their return notification to CRESA.

For instances where the occasional total response exceeds one (1) hour, the supervisor may grant an exception, based upon the totality of the circumstances for not arriving within one (1) hour.

B. On-call employees shall be compensated at a flat rate of $50.00 per day.

C. On-call employees shall be compensated at the rate set forth in 8.4 for time spent responding to off-duty call outs from the time the employee responds in the assigned City of Vancouver on-call vehicle. Compensation will be for a minimum of two hours during which time the employer may provide and require work of the employee called back.

D. On-call employees shall be assigned a vehicle for response. The vehicle shall only be utilized for City of Vancouver assignments and shall not leave Clark County except as directed and approved by the Fire Marshal. If an employee lives outside Clark County, the on-call vehicle shall be parked at the fire station assigned by the Fire Marshal during on-call hours.

E. Current and future employees must reside within a 60 minute response time, as calculated by Google maps, to the fire station assigned by the Fire Marshal, or other mutually agreed to location.

F. No more than one person may be on-call on any day unless previously approved by the Fire Marshal or their designee.

8.8 Telephone Calls at Home After Hours

Employees authorized by the Fire Marshal on subjects authorized by the Fire Marshal, who are required by the employer to answer work-related questions by telephone when they are not at work shall be paid for time actually spent on the telephone at the rate of one-and-one-half (1 ½) their normal base rate calculated to the nearest quarter-hour, with a quarter-hour minimum.

Article 9 Leave Benefits

9.1 Personal Time Off (PTO)
Employees may begin using accrued PTO hours as soon as the hours are earned in the PTO bank. PTO hours accrued in a pay period cannot be used in the same pay period in which time earned, i.e., PTO hours accrued in the 1st through the 15th pay period cannot be used until the 16th through the end of the month pay period and so forth.

An employee shall be paid for earned and accrued PTO hours, up to the number of hours denoted in Appendix B, at the employee's current rate of pay when they separate employment.

Provisions for Scheduled and Unscheduled PTO not covered in this agreement will follow policy.

9.2 Whenever an employee is involved in an investigation or enforcement lasting more than four (4) hours between 10:00 pm and 7:30 am on a Sunday through Thursday night, in lieu of overtime, the employee may use up to a six (6) hour period of compensatory time to be used for downtime during the next work day.

Article 10 Holidays

10.1 The following days are recognized as legal paid holidays for which time off are to be granted:

New Year's Day – January 1
Martin Luther King's Birthday – Third Monday in January
President's Day – Third Monday in February
Memorial Day – Last Monday in May
Juneteenth – June 19
Independence Day – July 4
Labor Day – First Monday in September
Veteran's Day – November 11
Thanksgiving Day – Fourth Thursday in November
Native American Heritage Day – Fourth Friday in November
Christmas Day – December 25

Article 11 Employee Insurance

Employees covered by this agreement will be provided insurance benefits as follows:

11.1 Life Insurance

Each employee shall receive a life insurance policy in an amount equal to 100% of the employee's annual salary, rounded to the next higher multiple of $1,000. In addition, employees shall have the option of choosing dependent and/or additional life insurance on a payroll deduction basis.

11.2 Long Term Disability
Regular and full-time and half-time bargaining unit employees will be covered by a city-paid group long-term disability insurance policy.

11.3 Health Insurance

A. Employees and their eligible dependents will have the option of selecting any combination of medical, vision and dental coverage from the following. Based on medical plan selection accompanying vision coverage may be required.

a. **Medical**

i. HMO Plan
ii. HMO Plan – CDHP (Consumer Driven Health Plan)
iii. PPO Plan
iv. PPO Plan – CDHP (Consumer Driven Health Plan)

b. **Dental**

i. HMO Plan
ii. PPO Plan

B. **Consumer Driven Health Plans (CDHP)**

a. CDHP's include a Health Savings Account (HSA) as allowable by law.
   i. The City will make a contribution to the Employee's HSA in the following amounts (amounts are pro-rated based on enrollment date:)
      1. Employee-only coverage - $1,600
      2. Employee plus one or more dependents - $3,200

b. Employees may also contribute pre-tax dollars to their HSA up to the limits allowed by law.

C. **Premiums**

City contribution will increase up to 5% of any increasing premium costs. This means the City will pay up to the first 5% of any increasing premium cost plus the City's previous year's premium sharing amount. The employee's share would be the previous year's premium sharing amount plus any premium costs above 5%.

D. In addition, members have an opt-out/cash-back option for eligible employees upon certification of other group coverage.

E. Flexible Spending Account (FSA).

a. For employees enrolled in a non-CDHP plan, employees will have the option of participating in a healthcare or dependent care FSA.

b. For employees enrolled in a CDHP plan,employees will have the option of participating in a FSA for dependent care costs.

11.4 It is understood that the type and level of benefits available under the City's health plan may be changed from time to time by the carriers, and the City shall not have a duty or obligation to negotiate over such changes with the Guild. Additionally, the City retains the right to change health plan providers as long as the new plan provides a comparable level of benefits as negotiated in this contract.

11.5 Dental Insurance
The City will pay 100% of the employee and eligible dependent cost for basic dental insurance for the term of this agreement.

11.6 All employee premiums will be paid using pre-tax dollars under the City's flexible benefits plan unless an employee selects the post-tax option.

11.7 Medical, vision and dental insurance premiums for regular part-time employees shall be paid by the Employer in the same portion as detailed in 11.3 above, and pro-rata, based on the employee's budgeted FTE (full-time equivalent).

Article 12 Retirement Plan

12.1 All eligible employees and the employer shall participate in the Washington Public Employees Retirement System (PERS) to the extent provided for by Washington state law.

Article 13 Clothing

13.1 The employer shall provide to all personnel all safety equipment and uniform equipment deemed necessary by the employer.

The employer will provide, repair or replacement of the above on an as needed basis, as determined by the employer. When a part of the uniform has been determined to be in need of replacement, the employer will provide the replacement within a reasonable period of time.

Article 14 Grievance Procedure

14.1 The City and the Guild desire that all employees be treated fairly and equitably. It is intended that this grievance procedure will provide a means of resolving grievances at the lowest possible level.

14.2 Grievance Definition: A grievance is defined as a dispute raised by an employee concerning the interpretation or application of a section(s) of this Agreement. Grievances shall be settled as provided for in this Article, and aggrieved employees shall have all rights guaranteed them by RCW 41.56.080 pertaining to grievances.

Representation: In the grievance procedure, the aggrieved individual employee shall have the right, as guaranteed by RCW 41.56.080 to represent themselves or be represented by their Guild representative. In addition, the Guild has the right in its own capacity to act as an aggrieved party in the grievance procedure. Only the Guild, on its own behalf or on behalf of an employee(s), may pursue a grievance to arbitration.

14.3 Grievance Procedure.

14.3.1 Informal Resolution. An employee or Guild representative who believes the terms and conditions of this Agreement have been violated shall first discuss the matter with the person who took the action giving rise to the belief and attempt to reach an informal resolution of the matter.

Step 1. Regardless of the status of any informal discussions to resolve the grievance, within twenty-one (21) calendar days of the date upon which the employee, by due diligence, could reasonably have been expected to know of the events giving rise to the grievance (but in no event more than (60) sixty calendar days from the event), the aggrieved

employee and/or Guild representative will submit the grievance in writing to the Chief or designee. The written grievance will include a review of the facts, including the specific section(s) violated, the names of all known witnesses, and the remedy requested. The Fire Chief or designee shall submit a written decision to the grievance within twenty-one (21) calendar days from their receipt of the grievance.

Step 2. Provided the grievance is not settled satisfactorily in Step 1, the employee and/or the Guild representative shall submit the grievance within fourteen (14) calendar days to the Fire Chief or designee. The Fire Chief or designee will submit a decision in writing within fourteen (14) calendar days.

Step 3. Provided the grievance is not settled satisfactorily in Step 2, the employee and/or the Guild representative shall submit the grievance within fourteen (14) calendar days to the City Manager or designee. The City Manager or designee will submit a decision in writing within fourteen (14) calendar days.

14.3.2 If the grievance is not settled satisfactorily, the Guild may pursue the matter to arbitration by giving written notice to the City Manager or designee within fourteen (14) calendar days.

14.4 Arbitration Procedure.

14.4.1 The parties may mutually agree upon an arbitrator. In the event that no such agreement is reached within seven (7) calendar days of the Guild's arbitration notice, the Guild will request a list of seven (7) arbitrators from Washington and/or Oregon provided by the American Arbitration Association or from any other mutually agreed source. Within fourteen (14) calendar days following the receipt of the list of eligible arbitrators, the parties' representatives shall meet or confer to select an arbitrator. The parties shall each strike three (3) arbitrators from the list in an alternating order, and the remaining arbitrator shall hear the dispute. The party exercising the first strike shall be the loser of a flip of a coin.

14.4.2 The arbitrator shall promptly establish a date, time and place for a hearing and shall provide reasonable notice thereof to the parties to the dispute. A hearing, which shall be informal, shall be held, and each party shall have the opportunity to present evidence and make argument. The rules of evidence prevailing in a judicial proceeding may be considered, but are not binding, and any oral

testimony or documentary evidence or other data deemed relevant by the arbitrator may be received in evidence.

14.4.3 The arbitrator shall make a written finding of fact and a written determination of the issues in dispute, based on the evidence presented. A copy thereof shall be served on each of the parties to the dispute. The decision of the arbitrator shall be final and binding upon both parties, subject to review by the Superior Court upon application of either party only upon an assertion that the decision was arbitrary or capricious, or exceeded the arbitrator's authority.

14.4.4 The arbitrator shall have no power to render a decision that will add to, subtract from, or alter, change or modify the terms of this Agreement.

14.4.5 Unless otherwise agreed by the parties, challenges to the procedural arbitrability of a grievance shall be resolved in a proceeding separate from and prior to arbitration on the merits of the grievance. Within fourteen (14) calendar days following receipt of an arbitrator's decision ruling that a challenged grievance is subject to arbitration, the parties will begin the process described in Section 17.4.1 to select an arbitrator to rule on the merits of the grievance.

14.4.6 The fees and expenses of the arbitrator and the cost of a written transcript for the arbitrator, if prepared, shall be shared equally between the Guild and the Employer. Each party shall be responsible for all expenses of presenting its own case, for compensating its own lawyers, representatives and witnesses, and for purchasing its own copy of any written transcript.

14.5 Time Limits. All time limits in this Article may be extended by mutual written agreement. Should the grievant or Guild fail to comply with any of the stated time limits, unless mutually agreed to extend, in writing, such grievance shall be deemed abandoned. Should the Employer fail to comply with any of the stated time limits, the grievance will be automatically advanced to the next step.

Article 15 Employee Discipline/Termination

15.1 The employer may, in good faith or for cause, take disciplinary action by written reprimand, suspension, demotion or discharge. The employee shall be provided a letter setting forth the reason(s) for such action at the time such action is taken or shortly thereafter. Employees shall be given the opportunity to read and answer all disciplinary letters or performance evaluations before placement of such material into their personnel file and

will be requested to sign such letters. Signature thereon shall not be construed as admission of guilt or concurrence with the reprimand, but rather an indication that they have seen and comprehend the gravity of the disciplinary action. A copy of the letter will be provided to the Guild upon authorization by the employee.

15.2 It is agreed by both parties that no entries may be made to an employee's personnel file from anonymous sources without substantive evidence.

Article 16 Layoff and Reinstatement

16.1 Layoff Procedure

Layoffs or reductions-in-full time equivalent (FTE) positions may be undertaken by the City due to budgetary reductions, organizational restructuring, lack of work, reduction or elimination of funds, material change in duties or organization, reduction in force or workload, or in the interests of economy or efficiency.

After the City has identified the job classification being reduced, layoffs and reduction-in-force will be made in the following order:

i. Temporary employees
ii. Newly hired probationary employees
iii. Promotional probationary employees
iv. Regular employees

The order in which employees will be laid off shall be determined based on seniority as defined in 16.2 of this Article.

16.2 Seniority

Seniority for the purposes of layoff, reduction, reinstatement, and bumping shall be based upon bargaining unit seniority for all members covered under this Agreement. Bargaining unit seniority shall be determined by the ranking outlined in the Vancouver Fire Department Fire Marshal's Office seniority list as published through Civil Service.

16.3 Notice to Guild

Representatives of the City shall notify the Guild within fourteen (14) calendar days after the City has officially determined that a layoff or reduction-in-FTE will affect any of the Guild members. After such notification, the City agrees to meet with the Guild, if requested, and to inform the Guild of the details of the layoff and provide a current seniority list as well as any other relevant information. This meeting shall occur prior to notifying the employee(s) selected for reduction or elimination.

16.4 Notice to Employees

Each employee to be laid off or to have an FTE reduction shall be given at least thirty (30) calendar days' notice of layoff, with a copy to the Guild. Employees who remain may be assigned the additional duties of those lower classified positions that were laid off or reduced.

16.5 Bumping

When an Employee is identified for a layoff or reduction-in-force, they shall be permitted to bump into a job or classification which they currently hold or have previously held, provided that the employee meets the minimum qualifications for the job. At the time of bumping the employee must have the training and certifications necessary to fulfill the duties and functions of the positions. In doing so, they may "bump" the least senior employee in that job or classification within the bargaining unit. Bumping may only occur within the same bargaining unit.

16.6 Once the City has notified the affected employee of layoff and there is an available vacant position or a position for the employee to bump into, they must notify Human Resources in writing of their intent to accept a vacant position or exercise bumping rights within fourteen (14) calendar days of the initial layoff notice. If notification is not received within the allotted time, rights to vacant positions or to bump shall be waived by the Employee. The Employee will subsequently be placed on the reinstatement list.

16.7 An Employee who bumped into a new position as an alternative to layoff and who fails to perform the functions of the new position during probation will be placed on the reinstatement list. Such employees will only be eligible for reinstatement to the position from which they were originally laid off. Failure to pass probation for reasons other than performing the functions of the new position will result in termination in accordance with Article 15.

16.8 Reinstatement

Employees who have been laid off are eligible for recall for a period of twenty-four (24) months following the date of layoff or reduction in FTE. The names of persons laid off will be placed on one reinstatement list. When a vacancy occurs in the same job classification for which there exists a reinstatement list, the City will fill the vacancy using that list with the understanding that employees must meet the required minimum qualifications and requisite background and medical screening for the position to which they would be reinstated. If there is more than one employee on the reinstatement list eligible for a vacancy in a particular job class, the City will use seniority as defined in Article 16.2 to determine who shall be offered reinstatement. Reinstatement notices will be sent by certified mail to the last address reflected in the employee's official personnel file.

16.9 Once an employee on the reinstatement list is offered reinstatement, the employee must respond within fourteen (14) calendar days of the date of the notice, unless extended by mutual consent. The employee shall be responsible for notifying the Human Resources Department of any change in their address or telephone number, while on layoff status.

Benefit accrual and service credit will be discontinued while in a layoff status of thirty (30) or more days.

Article 17 Cross Jurisdictional Agreement

17.1 IAFF Local 452 Suppression uniformed members-assigned light duty work may perform FMO work at the direction of the Fire Marshal.

17.2 Assigned light duty work for IAFF Local 452 Suppression uniformed members shall not result in any reduction of staff covered by this agreement.

17.3 Assigned light duty IAFF Local 452 Suppression shall not fill any vacant positions covered by this agreement, even on a temporary basis.

17.4 Other work options by non-Guild members may be determined by mutual agreement of the Guild and the City.

Article 18 Conflict of Contract and City Employment Policies

18.1 It is agreed that the intention of the parties to this agreement is that this agreement and all working agreements shall be consistent with the City Employment policies and that where it is found that the provisions of such an agreement are in conflict with the City Employment policies that the language of the agreement shall control.

18.2 Employees represented by this contract will be under the City's Employment Policy Manual. It is the intent that departmental rules shall be superseded by the City's Employment Policy Manual. If a situation occurs in which there is a difference between City rules/policies, and those of the department, Human Resources will meet with the Guild and the affected department to reach a mutually agreeable solution.

Article 19 Separability Clause

19.1 In the event that any provision of this agreement shall be determined to be illegal or in violation of any federal or state law or regulation, whether by judicial or administrative determination, that portion of the contract shall be deemed excised from this agreement and all other portions unless dependent upon excised portions shall remain in full force and effect.

Article 20 Past Practice Clause

20.1 This Agreement constitutes the entire agreement between the parties, and it supersedes any prior written or oral agreements between the parties. Any past practice whether written or oral, is null and void, unless specifically preserved in this Agreement.

Article 21 Bargaining of Mandatory Subjects

21.1 Except as permitted in this Agreement or by applicable law, the City will satisfy its collective bargaining obligation before changing a matter that is a mandatory subject. The City will notify the Guild of the proposed changes and the Guild may request discussions about and/or negotiations on the impact of these changes on employee's working conditions. In the event the Guild does not request discussions and/or negotiations within fourteen (14) calendar days, the City may implement the changes without further discussions and/or negotiations; provided that the Guild may request an extension of the timeline in this section which will not be unreasonably denied. There may be emergency or mandated conditions that are outside of the City's control requiring immediate implementation, in which case the City will notify the Guild as soon as possible.

Article 22 Appendices and Amendments

22.1 All appendices, amendments shall be lettered, dated and signed by the responsible parties and shall be subject to all provisions of this agreement.

A. The parties agree that this Agreement may be amended in writing as agreed to by both parties without action of their respective legislative bodies, unless otherwise specified herein, including, but not limited to, amendment by Memorandum of Understanding or Memorandum of Agreement.

Article 23 Termination and Renewal

23.1 This agreement is effective upon ratification by both parties and shall remain in full force and effect through December 31, 2028.

Dated this _____ day of _____, 2025.

For the Employer

_____
Lon Pluckhahn, City Manager

_____
Nathan Leek, Interim Fire Chief

_____
Antoinette Gasbarre, Human Resources Director

For the Guild

_____
Andrew Jorgenson, President

_____
Shane LaBeck, Secretary-Treasurer

Approved as to form:

_____
Nena Cook, City Attorney

Attest:

_____
Natasha Ramras, City Clerk

Appendix A

Rates of Pay

Note: remove entire table (it is a picture and cannot be easily edited)

Vancouver Fire Department Guild
Salary Schedule January 1, 2026 - December 31, 2026

Job Class Title	Range Number	Type Rate	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8
Fire Code Officer 1	10	MO.	7,004	7,252	7,504	7,770	8,039	8,322	8,610	8,960
		YR.	84,048	87,024	90,048	93,240	96,468	99,864	103,320	107,520
		HR.	40.408	41.838	43.292	44.827	46.379	48.012	49.673	51.692
Deputy Fire Marshal 1	12	MO.	7,358	7,618	7,885	8,164	8,446	8,745	9,047	9,413
		YR.	88,296	91,416	94,620	97,968	101,352	104,940	108,564	112,956
		HR.	42.450	43.950	45.490	47.100	48.727	50.452	52.194	54.306
Deputy Fire Marshal 2	16	MO.	8,122	8,408	8,702	9,011	9,321	9,651	9,985	10,389
		YR.	97,464	100,896	104,424	108,132	111,852	115,812	119,820	124,668
		HR.	46.858	48.508	50.204	51.987	53.775	55.679	57.606	59.937
Lead Deputy Fire Marshal *	19	MO.	8,748	9,055	9,371	9,703	10,037	10,393	10,752	11,189
		YR.	104,976	108,660	112,452	116,436	120,444	124,716	129,024	134,268
		HR.	50.469	52.240	54.063	55.979	57.906	59.960	62.031	64.552
Deputy Fire Marshal Supervisor Fire Protection Engineer	22	MO.	9,420	9,751	10,091	10,449	10,810	11,192	11,580	12,048
		YR.	113,040	117,012	121,092	125,388	129,720	134,304	138,960	144,576
		HR.	54.346	56.256	58.217	60.283	62.365	64.569	66.808	69.508

* Position will be removed with approval of Deputy Fire Marshal Supervisor position.

Note: remove entire table (it is a picture and cannot be easily edited)

Vancouver Fire Department Guild
Salary Schedule January 1, 2027 - December 31, 2027

Job Class Title	Range Number	Type Rate	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8
Fire Code Officer 1	10	MO.	7,214	7,470	7,729	8,003	8,280	8,572	8,868	9,229
		YR.	86,568	89,640	92,748	96,036	99,360	102,864	106,416	110,748
		HR.	41.619	43.096	44.590	46.171	47.769	49.454	51.162	53.244
Deputy Fire Marshal 1	12	MO.	7,579	7,847	8,122	8,409	8,699	9,007	9,318	9,695
		YR.	90,948	94,164	97,464	100,908	104,388	108,084	111,816	116,340
		HR.	43.725	45.271	46.858	48.513	50.187	51.963	53.758	55.933
Deputy Fire Marshal 2	16	MO.	8,366	8,660	8,963	9,281	9,601	9,941	10,285	10,701
		YR.	100,392	103,920	107,556	111,372	115,212	119,292	123,420	128,412
		HR.	48.265	49.962	51.710	53.544	55.390	57.352	59.337	61.737
	19	MO.	9,010	9,327	9,652	9,994	10,338	10,705	11,075	11,525
		YR.	108,120	111,924	115,824	119,928	124,056	128,460	132,900	138,300
		HR.	51.981	53.810	55.685	57.658	59.642	61.760	63.894	66.490
Deputy Fire Marshal Supervisor **Fire Protection Engineer**	22	MO.	9,703	10,044	10,394	10,762	11,134	11,528	11,927	12,409
		YR.	116,436	120,528	124,728	129,144	133,608	138,336	143,124	148,908
		HR.	55.979	57.946	59.965	62.088	64.235	66.508	68.810	71.590

Note: remove entire table (it is a picture and cannot be easily edited)

Vancouver Fire Department Guild
Salary Schedule January 1, 2028 - December 31, 2028

Job Class Title	Range Number	Type Rate	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8
Fire Code Officer 1	10	MO.	7,430	7,694	7,961	8,243	8,528	8,829	9,134	9,506
		YR.	89,160	92,328	95,532	98,916	102,336	105,948	109,608	114,072
		HR.	42.865	44.388	45.929	47.556	49.200	50.937	52.696	54.842
Deputy Fire Marshal 1	12	MO.	7,806	8,082	8,366	8,661	8,960	9,277	9,598	9,986
		YR.	93,672	96,984	100,392	103,932	107,520	111,324	115,176	119,832
		HR.	45.035	46.627	48.265	49.967	51.692	53.521	55.373	57.612
Deputy Fire Marshal 2	16	MO.	8,617	8,920	9,232	9,559	9,889	10,239	10,594	11,022
		YR.	103,404	107,040	110,784	114,708	118,668	122,868	127,128	132,264
		HR.	49.713	51.462	53.262	55.148	57.052	59.071	61.119	63.588
	19	MO.	9,280	9,607	9,942	10,294	10,648	11,026	11,407	11,871
		YR.	111,360	115,284	119,304	123,528	127,776	132,312	136,884	142,452
		HR.	53.538	55.425	57.358	59.388	61.431	63.612	65.810	68.487
Deputy Fire Marshal Supervisor **Fire Protection Engineer**	22	MO.	9,994	10,345	10,706	11,085	11,468	11,874	12,285	12,781
		YR.	119,928	124,140	128,472	133,020	137,616	142,488	147,420	153,372
		HR.	57.658	59.683	61.765	63.952	66.162	68.504	70.875	73.737

Appendix B

Employee Personal Time Off (PTO) Accrual Schedule

EMPLOYEE PAID TIME OFF (PTO) ACCRUAL SCHEDULE Based on an 8-hour day						
Year of Service	**Hours Per Month**	**Days Per Year**	**Maximum Payout at Separation Hours / Days**		**Maximum Accumulation Hours/Days**	
0 to 2	15	22.5	360	45	528	66
2+ to 5	18.34	27.5	440	55	608	76
5+ to 10	20.34	30.5	488	61	656	82
10 + to 15	22.34	33.5	536	67	704	88
15+ to 20	24.34	36.5	584	73	752	94
20+	26.34	39.5	632	79	800	100

Appendix C

Temporary or Seasonal Workers

"Temporary or seasonal worker" for purposes of this contract shall mean one who is hired to work not more than 1,040 hours in any one specific classification in one specific department in any twelve (12) consecutive month period. Exceptions to this policy shall be mutually agreed upon by the Employer and the Guild. The Employer will not rotate temporaries through the same position.

The intended use of temporary or seasonal workers by the Employer is to cover seasonal workloads and to fill unexpected vacancies created by a sudden increased workload, termination or disabilities of regular full-time employees. It is acknowledged that there will be exceptions to this policy. Exceptions to this policy shall be mutually agreed upon by the Employer and the Guild.

The Employer will make all records of temporary or seasonal workers, the date they started, and total hours worked, available to the Guild upon request.

Appendix D

Use of Fire Corps Volunteers

Any training and/or education materials utilized in the Fire Corps Volunteer program shall be pre-approved by the Fire Marshal. Fire Corps Volunteer training, special events and/or other public outreach activities and public education curriculum, shall be under the direct supervision of a Vancouver Fire Department Guild member. Other Fire Corps Volunteer supervisory arrangements may be determined upon mutual agreement between the Guild and the employer.

Any proposals for new activities will be collaboratively discussed between the City and the Guild.

A RESOLUTION by the Vancouver City Council on behalf of the City of Vancouver, a Washington municipal corporation (the "City") accepting a donation of real property from Tower Mall Properties LLC, a Washington limited liability company (the "Donor") to be used by the City for any public purpose.

Staff Report: 006-26

To: Mayor and City Council
From: City Manager
Date: January 12, 2026

Subject
Heights Land Donation

Key Points

- A 1,732 square foot piece of land located at 5301 E. Mill Plain Blvd in the Heights District is needed to create a full redevelopment block in accordance with the Heights District Plan.
- The landowner has offered to donate the property to the City without conditions.
- Pursuant to the City of Vancouver's Donation Acceptance Policy No. 100-41 land donations need City Council approval.
- This land donation is necessary to support the Heights development.

Strategic Plan Alignment
Housing and Human Needs – meeting basic needs and partnering with organizations to support the community

Present Situation
The City needs a small section of vacant, unimproved land owned by Tower Mall Properties LLC (the "Donor") to create a full redevelopment block, known as Site B, in accordance with the Heights District Plan. The property consists of approximately 1,732 square feet; a portion of the parcel located at 5301 E. Mill Plain Blvd. in the Heights District identified by Clark County Tax Account Number 37910149 and is more specifically described in the attached Exhibit A (the "Property").

The Donor has offered to donate the Property to the City without conditions. The executed donation form is attached as Exhibit B.

The City Attorney's Office and City staff have conducted due diligence of the Property, and the Property is not restricted by reservations, easements or any other limitations that limit the development and future use of the Property.

Pursuant to the City of Vancouver's Donation Acceptance Policy No. 100-41, the City Manager has reviewed the Property to evaluate any policy implications or future capital or maintenance costs associated with the donation. Acceptance of the Property directly supports the planned development of Site B, which will deliver much-needed housing and is consistent with City objectives for the Heights District Plan. Because the Property is vacant, unimproved and intended for redevelopment in the near term, there are no anticipated capital improvement needs and ongoing maintenance costs

are expected to be negligible, if any.

The City obtained a certified appraisal of the Property and surrounding property owned by the Donor. A copy of the appraisal, dated June 16, 2025, is attached as Exhibit C. The Property is valued at $40,975 based on the appraised per square foot value. The Donor is responsible for ensuring compliance with all applicable Internal Revenue Service regulations associated with this donation.

Accepting the land donation avoids acquisition costs that the City would otherwise incur and facilitates the Heights development.

Advantage(s)

- Facilitates the development of housing and implementation of the Heights District Plan.
- Accepting the land donation avoids acquisition costs that the City would otherwise incur.

Challenge(s)
None

Budget Impact
The City would incur only nominal administrative costs associated with the land donation, including Clark County Auditor recording fees, which are accounted for in the current budget.

Prior Council Review
None

Action Requested
On Monday, January 12, 2026, finalize and approve the resolution accepting a donation of real property from Tower Mall Properties LLC to be used by the City for any public purpose and authorize the City Manager, or designee, to execute agreements and other documents necessary to fulfill the transaction.

Staff Contact
Amy Stewart, Real Estate Project Manager, amy.stewart@cityofvancouver.us

Attachments:
1. Resolution
2. Exhibit A - Property Legal Description
3. Exhibit B - Land Donation Form
4. Exhibit C - Property Appraisal
5. Deed

01/12/2026

RESOLUTION NO. M-____

A RESOLUTION by the Vancouver City Council on behalf of the City of Vancouver, a Washington municipal corporation (the "City") accepting a donation of real property from Tower Mall Properties LLC, a Washington limited liability company (the "Donor") to be used by the City for any public purpose.

WHEREAS, the Donor is the owner in fee simple of real property located at 5301 E. Mill Plain Boulevard, Vancouver, Washington, Clark County Assessor's Parcel Number 37910149 (the Property).

WHEREAS, the Donor wishes to donate a portion of the Property to the City (the "Donation") as a donation to the City for any public purpose, in accordance with the City's Donation Acceptance Policy (#100-41); and

WHEREAS, the Donor has not requested that the Donation be conditioned or restricted in any way and, in accepting the Donation the City will, at the City's sole discretion, use the Donation for any public purpose, and

WHEREAS, the City has conducted a due diligence inspection of the Property and the City is satisfied with the Property regarding any restrictions, reservations, easements or other limitations associated with the Donation;

WHEREAS, the City Manager has reviewed the Property to evaluate and summarize any policy implications or future capital or maintenance costs associated with the Donation; and

WHEREAS, the City has obtained a certified appraisal of the Property, and the Donor is responsible for ensuring their compliance with all applicable Internal Revenue Service (IRS)

regulations, if any, regarding the Donation; and

WHEREAS, the value of the Donation has been determined based upon a written appraisal, provided by the City, from a certified MAI appraiser; and

WHEREAS, the Donor has affirmed that the City may dispose of the Donation at any time and, other than acknowledging acceptance of the Donation in writing once received, the City is under no further obligation to the Donor regarding the Donation; and

WHEREAS, the Donor agrees to transfer the Donation to the City via a Statutory Warranty Deed (the "Deed"); and

WHEREAS, the City acknowledges that pursuant to WAC 458-61A-201, gifts of real property are not subject to real estate excise tax, but the Donor agrees to complete and file the required Real Estate Excise Tax Affidavit (the "REETA"), which is required for the recording of the Deed; and

WHEREAS, the City agrees to cover the costs associated with filing the REETA for the acceptance of the Donation.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY OF VANCOUVER:

Section 1. Consistent with the City's Donation Acceptance Policy, the City hereby accepts the Donation from the Donor, contingent upon closing of the Property transaction contemplated therein.

Section 2. The City Manager is hereby authorized to execute agreements and other documents necessary to fulfill this transaction and acknowledge the Donation.

DATED this_____, of _____, 2026.

_____
Anne McEnerny-Ogle, Mayor

Attest:

_____
By: Natasha Ramras, City Clerk (or Designee)

Approved as to form:

_____
By: Nena Cook, City Attorney

Tower Mall Properties LLC
Proposed Acquisition
Legal Description

Being a portion of that parcel of land conveyed to Tower Mall Properties, LLC, a Washington Limited Liability company as described in Auditor's File Number 5176933, Clark County Deed Records, and being a portion of the John Nye Donation Land Claim located in the Southwest one-quarter of Section 30, Township 2 North, Range 2 East of the Willamette Meridian, City of Vancouver, Clark County, Washington and being more particularly described as follows:

COMMENCING FROM the Northerly most corner of Lot 2 of that Short Plat recorded in Book 2, Page 243, Short Plat Records of Clark County, Washington;

Thence North 33°07'37" West, along the Easterly line of Parcel II conveyed to ABC Homes, LLC, a Washington Limited Liability company as described in Auditor's File Number 4807596, 476.66 feet to the easterly line of said Auditor's File Number 5176933;

Thence North 20°37'49" East, along said easterly line of said Auditor's File Number 5176933, 179.87 feet to an angle point in said easterly line;

Thence continuing along said easterly line North 22°52'26" East, 100.76 feet to the **TRUE POINT OF BEGINNING**;

Thence North 01°10'07" East, 93.00 feet to a point on the southerly Right-of-Way line of East Mill Plain Boulevard;

Thence South 88°49'53" East, along said southerly Right-of-Way line, 38.30 feet to the easterly line of said Auditor's File Number 5176933;

Thence South 26°40'14" West, along said easterly line, 18.02 feet to an angle point;

Thence South 22°52'26" West, 82.59 feet to the **TRUE POINT OF BEGINNING**.

Contains in all 1,732 square feet, more or less.

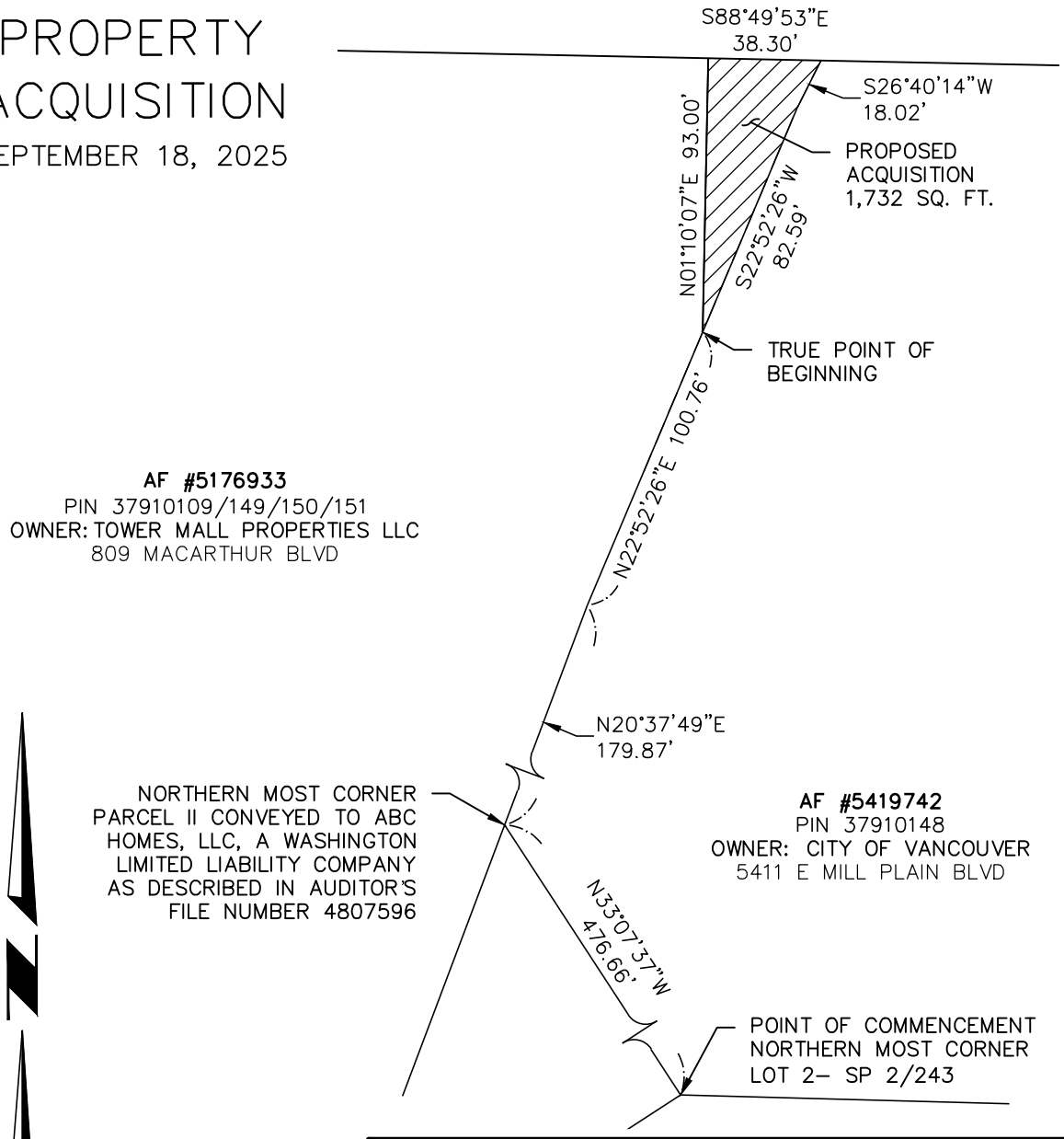
See Exhibit Map attached hereto

9.19.25

EXHIBIT MAP

PROPERTY ACQUISITION

SEPTEMBER 18, 2025



Scale 1" = 60'

0 30 60 120

PBS

DRAWN BY: MLY	SCALE: 1"=60'	9.18.25
CHECKED BY: TLG	JOB NO.: 71595.000	SHEET 1 OF 1

CHARITABLE DONATION SUBSTANTIATION FORM

Please return this form to the City of Vancouver and retain a copy with your tax records as verification

Donor's Name: TOWER MALL PROPERTIES LLC

Address: c/o THE AL ANGELO CO. 400 E. MILL PLAIN BLVD FLOOR(5) (Street) (City) VANCOUVER (State) WA (Zip) 98660

Phone: 360-6943343 E-Mail: CRAIG@ALANGELO.COM

Description of Donation: VACANT LAND APPROX 163984 FT.

Intended Use of Donation (per donor): FOR City's development.

The City will make all reasonable efforts to fulfill the specific purpose(s) for this donation, but reserves the right to decline any donation that is too restrictive in purpose, may be too difficult or costly to administer or that is for purposes inconsistent with or outside the scope of the city's services and priorities.

Donation Value: $ 40,975.00

Gifts to a political subdivision of a state for exclusively public purposes is considered a charitable contributions under 26 USC § 170 (c) (1) for income tax purposes. The City of Vancouver is a City of the first class of the State of Washington, organized under Article XI, Section 10 and Amendment 40 of the Washington State Constitution, and is accordingly a political subdivision of the State of Washington.

The City's Federal Tax Identification number is 91-6001288.

Your signature below will verify that the information provided on this "Donation Substantiation Form" is true to the best of your knowledge.

Craig S Angelo
Donor's Signature

9-18-25
Date

Donation _____ accepted or _____ declined by:

City Representative

Date

TVG THE VALUATION GROUP

Heights District Redevelopment Project
Tower Mall Properties LLC Property Appraisal

David E. Balfour, MAI
The Valuation Group
24925 SW Garden Acres Road
Sherwood, OR 97140

TVG File 25045-1

Washington State Department of Transportation

Parcel No.:	Not provided
Owner:	Tower Mall Properties LLC
Federal Aid No.:	N/A
Project No.:	CVAN.1001.02
R/W Plan Title:	Heights District Redevelopment Project
Plan Sheet:	Not available
Plan Approval Date:	Not available
Date of Last Map Revision:	Not available
Appraiser:	David E. Balfour, MAI

Certificate of Appraisal

We certify that, to the best of the appraiser(s) knowledge and belief:

The statements of fact contained in this appraisal are true and correct.

The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conclusions, and are the appraiser(s) personal, unbiased professional analyses, opinions, and conclusions.

The appraiser(s) have performed services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.

The appraiser(s) have no present or prospective interest in the property that is the subject of this appraisal and have no personal interest or bias with respect to the parties involved.

The appraiser(s) compensation is not contingent upon the reporting of a predetermined value or direction that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event.

The appraiser(s) analyses, opinions, and conclusions were developed, and this appraisal has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice.

The appraiser(s) have made a personal inspection of the property that is the subject of this report and the comparable sales contained in the report addenda.

The appraiser(s) have afforded the owner or a designated representative of the property that is the subject of this appraisal the opportunity to accompany me on the inspection of the property.

There are no other parties that have provided professional assistance to the appraisal report.

The appraiser(s) have disregarded any increase in Fair Market Value caused by the proposed public improvement or its likelihood prior to the date of valuation. The appraiser(s) have disregarded any decrease in Fair Market Value caused by the proposed public improvement or its likelihood prior to the date of valuation, except physical deterioration within the reasonable control of the owner.

This appraisal has been made in conformity with the appropriate State and Federal laws and requirements, and complies with the contract between the agency and the appraiser(s);

The property has been appraised for its fair market value as though owned in fee simple, or as encumbered only by the existing easements as described in the title report dated June 16, 2025.

The opinion of value expressed below is the result of, and is subject to the data and conditions described in detail in this report of 193 pages;

The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.

The appraiser(s) made a personal inspection of the property that is the subject of this report on October 24, 2023, January 29, 2024, March 1, 2024, January 9, 2025, and May 27, 2025. These inspections dates were not solely related to the subject property as the appraiser has been working on the Vancouver Heights Blocks project for multiple parcels and the cited dates above represent each date the appraiser has viewed the subject property while working in the project vicinity. The Date of Value for the property that is the subject of this appraisal is May 27, 2025.

Per the FAIR MARKET VALUE definition herein, the value conclusions for the property that is the subject of this appraisal are on a cash basis and are:

FAIR MARKET VALUE BEFORE ACQUISITION	**$4,967,500**
FAIR MARKET VALUE AFTER ACQUISITION	**$4,250,756**
DIFFERENCE	**$716,744**

Date of Assignment or Contract: April 22, 2025 Name: David E. Balfour, MAI

Date Signed: June 16, 2025 Signature:

Washington State-certified general real estate appraiser certification number: David E. Balfour, MAI - 1102402

DO NOT WRITE BELOW THIS LINE

Headquarters Service Center Date Stamp Region Date Stamp

Assignment Scope of Work

The report is compliant with both USPAP and Washington State Department of Transportation (WSDOT) Standards as set forth in the WSDOT R/W Manual Chapter 4, the WSDOT Appraisal Report Guide, and Federal Regulations as defined in 49 CFR part 24. The purpose of this appraisal assignment is to (1) develop and support a "before situation" fair market value estimate for the subject property disregarding any project influence. Concurrently, an "after situation" fair market value estimate (2) is to be developed and supported for the remainder property. The before and after value opinions are then to be compared in order to develop and support the value diminishment attributable to the project acquisitions. Additionally, the appraiser is to (3) allocate damages or special benefits, if any, to the remaining real property and property rights.

- It should be noted that the appraiser confirmed with the client that considering that the improvements on the subject property are not impacted by the proposed acquisitions, the appraiser has utilized a before and after report format.

In the event of conflict or dispute in determining correct appraisal procedures that are not addressed in the standards noted above, the *Uniform Appraisal Standards for Federal Land Acquisitions* (Yellow Book) will be the determining authority.

Under 49 CFR, WSDOT is required to take an active role in developing the scope of work. However, it is the ultimate responsibility of the appraiser to develop a complete Scope of Work and produce a credible appraisal report. The appraiser's SCOPE of WORK is included in Section 5 of the report. The report must adhere to the WSDOT and Federal Standards as described above and the specific task assignment for this parcel. The task assignment for this report must be included in the report or addendum.

Eminent Domain Appraisal Information and Definitions

The intended use of this appraisal is to provide a supportable fair market value opinion to the client, for a partial acquisition proposed on the subject property related to the proposed public improvement project identified herein. The client and intended users are identified below. Additional funding partners may review the appraisal as part of their oversight activities. A copy of this report may be provided to the property owner as a courtesy and part of the good faith bargaining process. However, this does not imply that the property owner has a standing as an intended user and is not authorized to publish or use the report for any other purpose.

Client:	City of Vancouver
Intended Users:	City of Vancouver

Unless stated otherwise in the report, the property rights appraised constitute the fee simple interest.

> "Fair Market Value" is defined as; the amount in cash which a well-informed buyer, willing but not obliged to buy the property, would pay, and which a well-informed seller, willing but not obligated to sell it would accept, taking into consideration all uses to which the property is adapted and might in reason be applied (Washington Pattern Instruction 150.08).

Public Law 91-646 (Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970) and Washington State RCW 8.26.180 both require that the owner or owner's representative be given an opportunity to accompany the appraiser during the inspection of the property. "If the appraiser is advised that the property owner is represented by legal counsel, all owner contact and property inspections must be arranged through the owner's attorney, unless the attorney specifically authorizes the appraiser to make direct contact with the owner".

As part of the scope of work, the appraiser must determine the subject property impacted by the proposed acquisition(s) in order to establish the fair market value (just compensation) of the taking. In condemnation, the larger parcel is the property that has unity of ownership, and unity of use. These are the conditions that establish the larger parcel for consideration of severance damages.

- The larger parcel consists of the following four parcels which exhibit unity of use and ownership. Furthermore, the parcels are contiguous and form a competitively shaped commercial development land tract with prominent intersection corner roadway exposure (MacArthur Boulevard and Mill Plain Boulevard).

Situs	**Account**
809 MacArthur Blvd	37910109
5207 E Mill Plain Blvd	37910150
5301 E Mill Plain Blvd	37910149
5303 E Mill Plain Blvd	37910151

Extraordinary assumptions or hypothetical conditions include but may not be limited to the following:

- **Extraordinary Assumption**: It has been assumed that lease information regarding the subject property spaces leased to Muchas Gracias and The Diner extracted from the Colliers International Appraisal Report (dated 3/7/2025 and prepared by Dean Meyer, MAI and Jeremy Snow, MAI) is accurate and supportable. It should be noted that the appraiser utilized a lower leased area (SF) for the Muchas Gracias space which increased the effective rent per square foot from the Colliers appraisal report.

- **Extraordinary Assumption**: It has been assumed that proposed Parcel 1 through 3 acquisition areas identified herein are accurate and verifiable by survey. The client provided these areas (square footages) to the appraiser and the appraisal report has assumed these areas to be correct.
- **Hypothetical Condition**: State and Federal standards require the appraiser to disregard any decrease or increase in the fair market value of the subject caused by the project.
- **Hypothetical Condition**: The after-situation analysis of the remainder concluded herein has been predicated upon the hypothetical condition that the project has been completed as proposed on the project construction plan set provided to the appraiser which has been included herein.
- **Hypothetical Condition**: In Addenda Exhibit E are pending partial acquisitions of the subject associated with the Heights District Redevelopment Project along MacArthur Boulevard and Mill Plain Boulevard which are in the process of being acquired by the City of Vancouver. These acquisitions were appraised in a previous appraisal assignment regarding the subject property (Dated 3/5/2024) completed by the appraiser. This appraisal report relies upon the hypothetical condition that these partial acquisitions have been affected.

  The following tabulation provides a summary of the pending partial acquisitions and thus the subject before situation land area that is the basis of this appraisal report and reflected on the Subject Plot Plan (see following pages).

	SF	AC
Area of Entire Property:	161,172	3.70
Acquisition Type: Fee (MacArthur & Mill Plain)	(3,038)	(0.07)
Acquisition Type: Fee (MacArthur & Mill Plain)	(741)	(0.02)
Area of Remainder Property:	157,393	3.61

APPRAISAL ASSUMPTIONS AND LIMITING CONDITIONS

1. The property description supplied to the appraiser(s) is assumed to be correct.
2. No survey of the property has been made or reviewed by the appraiser, and no responsibility is assumed in connection with such matters. Illustrative material, including maps and plot plans, utilized in this report are included only to assist the reader in visualizing the property. Property dimensions and sizes are considered to be approximate.
3. No responsibility is assumed for matters of a legal nature affecting title to the property, nor is any opinion of title rendered. Property titles are assumed to be good and merchantable unless otherwise stated.

4. Information furnished by others is believed to be true, correct, and reliable. However, no responsibility for its accuracy is assumed by the appraiser(s);

5. All mortgages, liens, encumbrances, leases, and servitudes have been disregarded unless so specified within the report. The property is assumed to under responsible, financially sound ownership and competent management.

6. It is assumed that there are no hidden or unapparent conditions of the property, subsoil, or structures which would render the property more or less valuable. No responsibility is assumed for such conditions or for arranging for engineering studies which may be required to discover them.

7. Unless otherwise stated in this report, the existence of hazardous material, which may or may not be present on the property, was not observed by the appraiser(s). However, the appraiser(s) is not qualified to detect such substances. The presence of substances such as asbestos, urea-formaldehyde foam insulation or other potentially hazardous materials may affect the value of the property. The value conclusions in this report are predicated on the assumption that there are no such materials on or in the property that would cause a loss of value. No responsibility is assumed for any such conditions, or for the expertise required to discover them. The client is urged to retain an expert in this field if desired. The analysis and value conclusions in this report are null and void should any hazardous material be discovered.

8. Unless otherwise stated in this report, no environmental impact studies were either requested or made in conjunction with this report. The appraiser(s) reserves the right to alter, amend, revise, or rescind any opinions of value based upon any subsequent environmental impact studies, research, or investigation.

9. It is assumed that there is full compliance with all applicable federal, state, and local environmental regulations and laws unless noncompliance is specified, defined, and considered in this report.

10. It is assumed that all applicable zoning and use regulations and restrictions have been complied with, unless non-conformity has been specified, defined and considered in this report.

11. It is assumed that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state, or federal governmental or private entity or organization have been or can be obtained or renewed for any use on which the value estimate is based.

12. The appraiser(s) will not be required to give testimony or appear in court because of having made this report, unless arrangements have previously been made.

13. Possession of this report, or a copy thereof, does not carry with it the right to publication. It may not be used for any purpose by any person other than the client without the written

consent of the appraiser, and in any event, only with properly written qualification and only in its entirety.

14. Neither all nor any part of the contents of this report, or copy thereof, shall be conveyed to the public through advertising, public relations, news, sales, or any other media without written consent and approval of the appraiser. Nor shall the appraiser, client, firm, or professional organization of which the appraiser is a member be identified without the written consent of the appraiser.

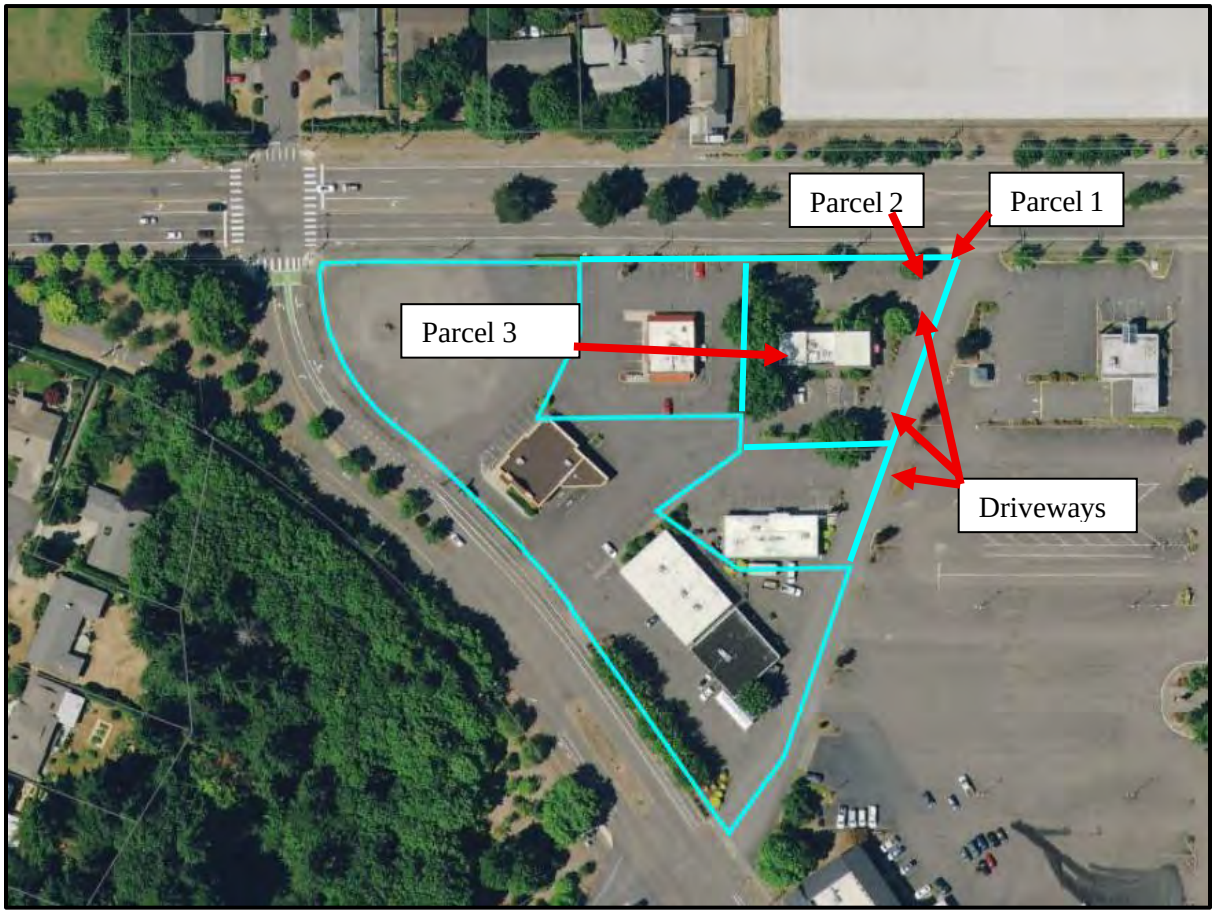
15. The liability of the appraiser, employees, and subcontractors is limited to the client only. There is no accountability, obligation. or liability to any third party. If this report is placed in the hands of anyone other than the client, the client shall make such party aware of all limiting conditions and assumptions of the assignment and related discussions. The appraiser is in no way responsible for any costs incurred to discover or correct any deficiencies of the property.

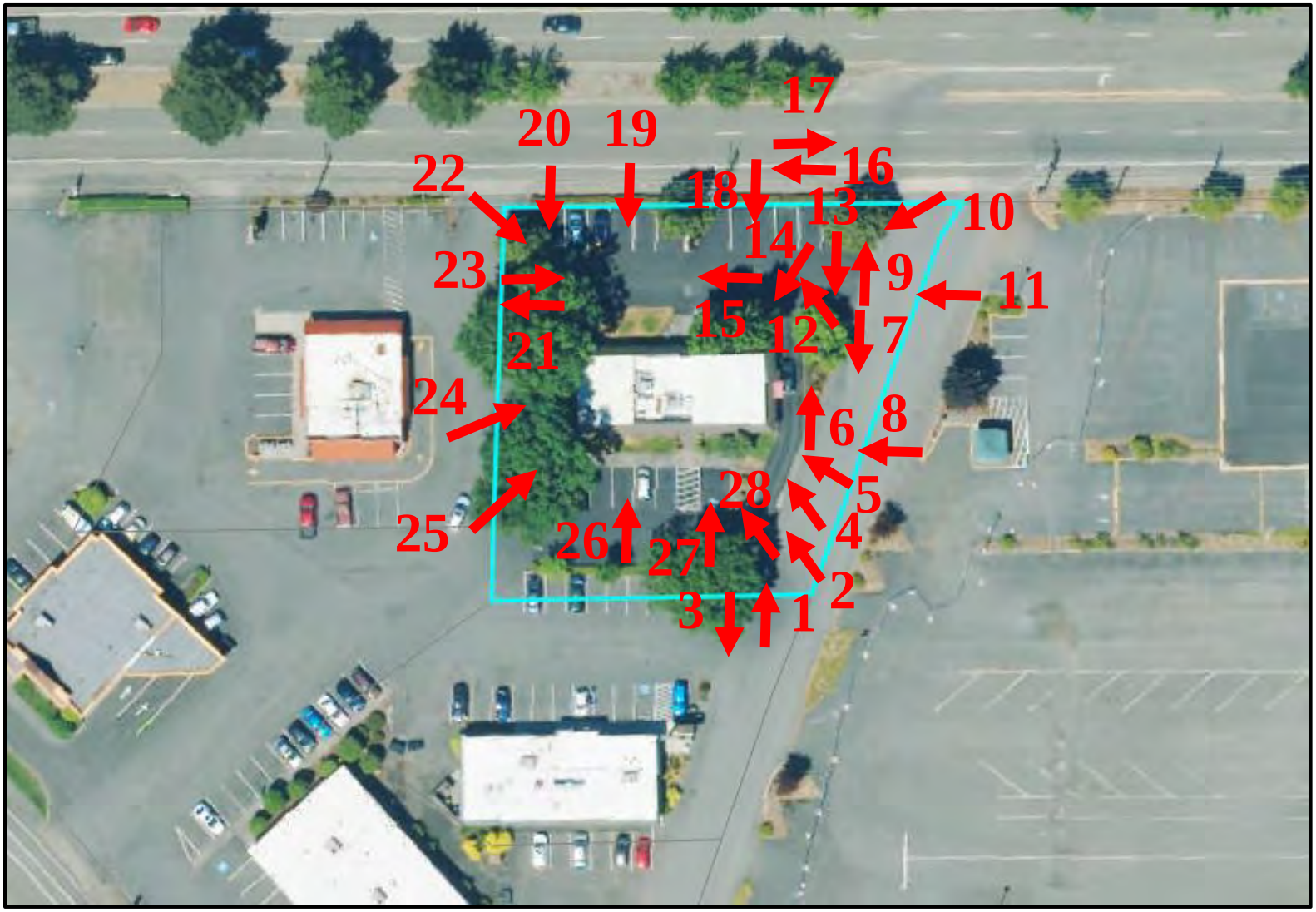
16. It is assumed that the public project which is the object of this report will be constructed in the manner proposed on the most recent right of way plan prior to the appraisal date and in the foreseeable future.

17. Acceptance and/or use of this report constitutes acceptance of the foregoing assumptions and limiting conditions.

SUBJECT PLOT PLAN

Before Area: 157,393 SF *See Hypothetical Conditions	**After Area:** 145,388 SF	**Fee Acquisition:** 12,005 SF (Parcel 1 and 2)
Permanent Easement Acquisition: None		**Temporary Easement Acquisition:** 4,350 SF (Parcel 3 / 1-Year term)
Limited Access/Access Notes: The project will result in a modification of access with the existing driveways along the east boundary of Larger Parcel Property 37910149 and 37910151 being shifted west of the current locations and reestablished to the north/south roadway being constructed in the Parcel 2 acquisition area.		





Subject Photograph Location Exhibit

SUBJECT PHOTOGRAPHS - Photographer: David E. Balfour, MAI

(1) Northerly street scene along Blandford Drive (Parcel 1 and 2 in the distance)

(2) Northwest view of the subject from Blandford Drive (Building No. 1 impacted)

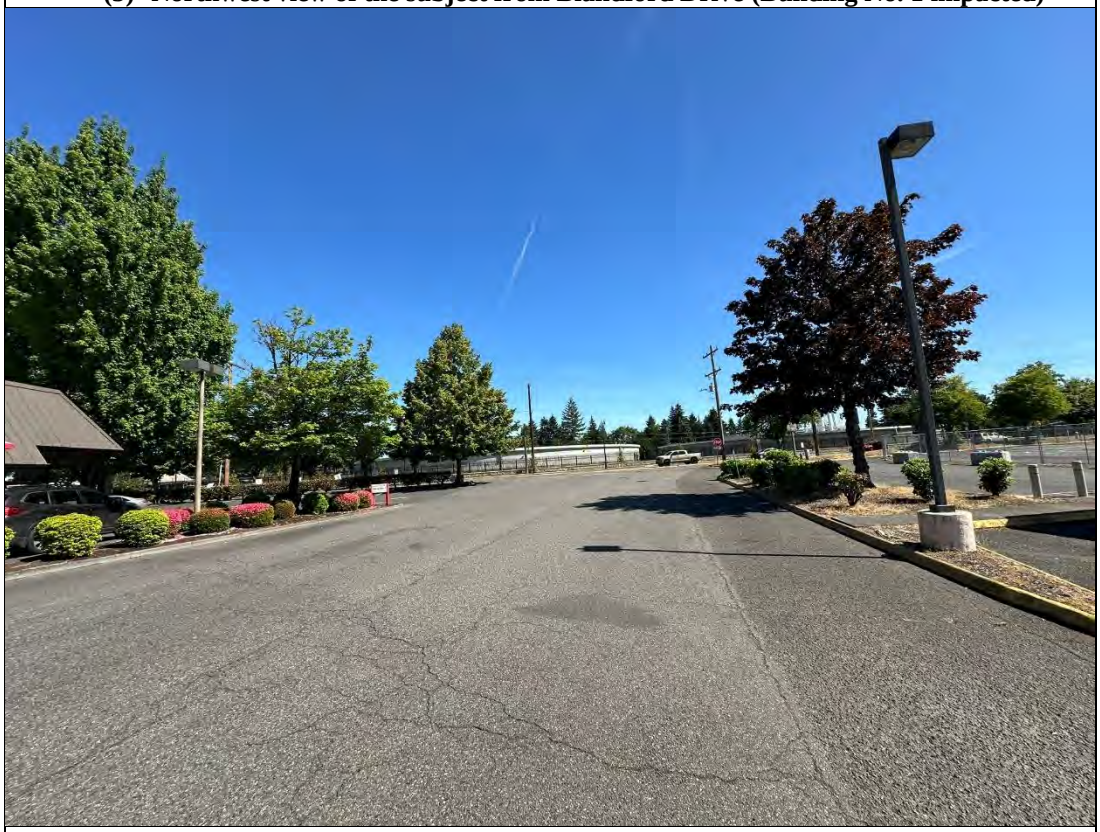
SUBJECT PHOTOGRAPHS - Photographer: David E. Balfour, MAI

(3) Southerly street scene along Blandford Drive

(4) Northwest view of the subject from Blandford Drive (Building No. 1 impacted)

SUBJECT PHOTOGRAPHS - Photographer: David E. Balfour, MAI

(5) Northwest view of the subject from Blandford Drive (Building No. 1 impacted)



(6) Northerly street scene along Blandford Drive (View of Parcel 1 and 2)

SUBJECT PHOTOGRAPHS - Photographer: David E. Balfour, MAI

(7) Southerly street scene from Blandford Drive (subject right)

(8) Westerly view of subject (Building No. 1 impacted / Parcel 3)

SUBJECT PHOTOGRAPHS - Photographer: David E. Balfour, MAI

(9) Northerly view of Parcel 1 and 2 (towards East Mill Plain Blvd)

(10) Southwestern view of subject (Building No. 1 impacted)

SUBJECT PHOTOGRAPHS - Photographer: David E. Balfour, MAI

(11) Westerly view of subject and Parcel ½ acquisition areas

(12) North view of the Parcel 1 and 2 acquisition areas

SUBJECT PHOTOGRAPHS - Photographer: David E. Balfour, MAI

(13) South view of the Parcel 1 and 2 acquisition areas

(14) Southwestern view of subject Building No. 1 and the Parcel 3 acquisition area

SUBJECT PHOTOGRAPHS - Photographer: David E. Balfour, MAI

(15) Westerly view of subject parking lot

(16) Westerly street scene along E Mill Plain Blvd (subject left)

SUBJECT PHOTOGRAPHS - Photographer: David E. Balfour, MAI

(17) Easterly street scene along E Mill Plain Blvd (subject right)

(18) South view of the Parcel 1 through 3 acquisition areas

SUBJECT PHOTOGRAPHS - Photographer: David E. Balfour, MAI

(19) South view of subject Building No. 1 impacted and Parcel 3

(20) South view of subject Building No. 1 impacted and Parcel 3

SUBJECT PHOTOGRAPHS - Photographer: David E. Balfour, MAI

(21) West view of subject and Building No. 2

(22) Southeasterly view of the subject property Building No. 1 and Parcel 3

SUBJECT PHOTOGRAPHS - Photographer: David E. Balfour, MAI

(23) Easterly view of subject Building No. 1 and Parcel 3

(24) East view of subject property Building No. 1 and Parcel 3

SUBJECT PHOTOGRAPHS - Photographer: David E. Balfour, MAI

(25) Northeasterly view of subject property Building No. 1 and Parcel 3

(26) Northerly view of subject property Building No. 1 and Parcel 3

SUBJECT PHOTOGRAPHS - Photographer: David E. Balfour, MAI

(27) Northerly view of the subject property Building No. 1 and Parcel 1 through 3

(28) Northwesterly view of subject property Building No. 1 and Parcel 1 through 3

Subject Information

1. **Legal Owner**: As identified in a Commitment for Title Insurance prepared by Chicago Title Company of Washington (Commitment Number: 622-168311) which has an effective date of February 5, 2024, ownership of the subject property is vested in the Tower Mall Properties, LLC, a Washington limited liability company. This was further confirmed by a review of Clark County Assessor Records as of the effective date of value.

   The appraiser was provided with an ALTA Commitment for Title Insurance report regarding the subject. A review of the recorded exception documents, metes and bounds descriptions, and legal maps **did not reveal** or clearly depict that the proposed acquisition area(s) will overlap with any existing parking easements/encumbrances. However, it should be noted that per a Survey identified as Book 64, Page 146, included in the appraisal report addenda herein, there are two utility easements that overlap with the proposed acquisition areas as summarized below:

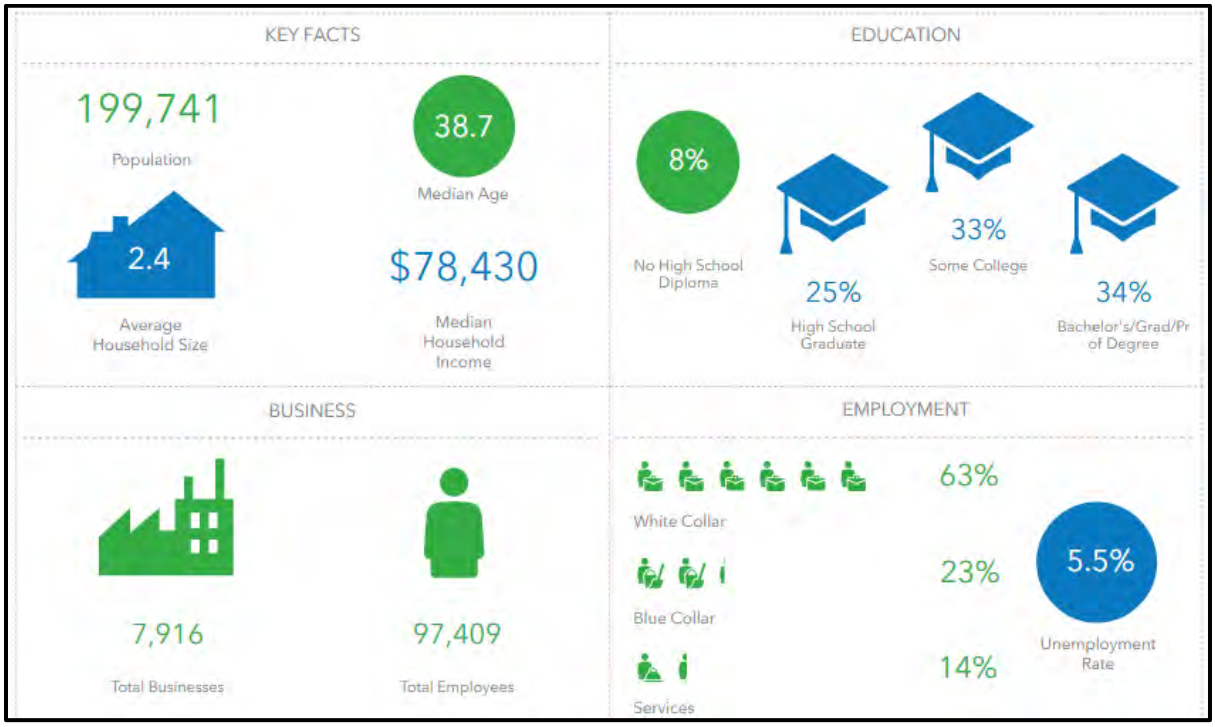
   - There is a 20-foot waterline easement (G-395265) which runs along the subject east boundary. The appraiser was not provided with any information/documents regarding this easement (by Chicago Title or the client) and did not locate the easement through public records. This easement should be confirmed by the client and its overlap area identified. The appraisal report does not recognize the previous property rights conveyances given that information is not available. This is an assignment condition as identified by USPAP.

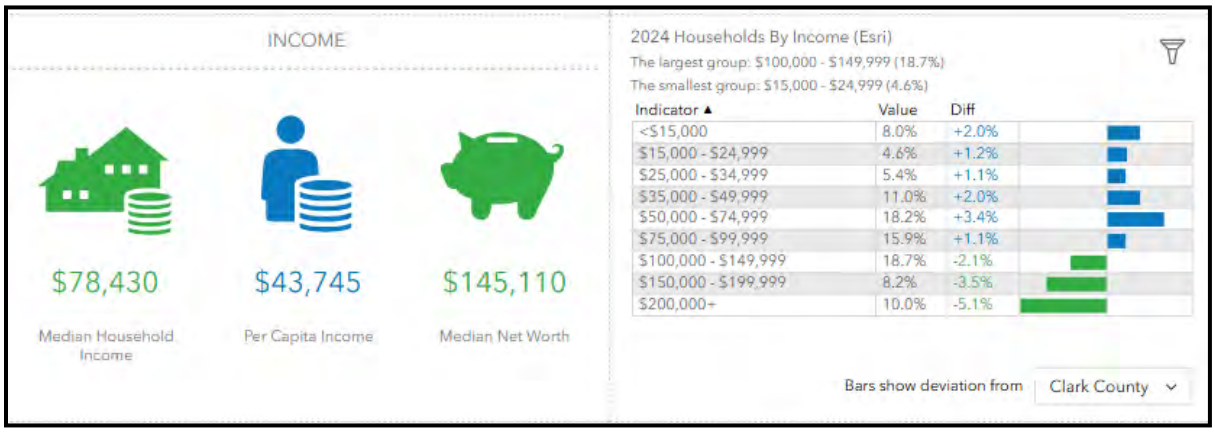
   - There is a 5-foot public utility easement (G444958) which runs along the subject north boundary (and has 100 SF of overlap with the waterline easement identified above). The appraiser was not provided with any information/documents regarding this easement (by Chicago Title or the client) and did not locate the easement through public records. This easement should be confirmed by the client and its overlap area identified. The appraisal report does not recognize the previous property rights conveyances given that information is not available. This is an assignment condition as identified by USPAP.

   A title search and current survey to identify all PTR exceptions and potential overlaps with the proposed acquisition areas is strongly recommended to the client.

2. **Subject Location**: The subject larger parcel is identified by multiple situs addresses (809, 815, and 915 Macarthur Blvd, 5207, 5301, 5303 E Mill Plain Blvd) in Vancouver, Washington. It is located in central Vancouver between Interstate 205 (+/-2.8 miles east) and Interstate 5 (+/-2.5 miles west). Surrounding land uses include commercial and mixed-

use properties as well as single-family residences. The following is an infographic summarizing the City of Vancouver:





The following information provides a summary of the subject market area which is specifically Downtown Vancouver (Source: visitvancouverwa.com):

> *"The heart of Vancouver, Downtown offers a mix of historic and modern buildings lining the business-filled blocks between Fifth Street and East Mill Plain Boulevard. Public art can be spotted on almost every corner, and year-round events keep Esther Short Park humming with activity. Visitors to Vancouver routinely note the welcoming*

nature of the businesses on Main Street, and Sunset Magazine even named Vancouver's Main Street among the Best in the West. Local businesses that call downtown home include hip coffee shop hangouts, vintage boutiques, the iconic Kiggins Theatre, and some of the area's most popular breweries. Downtown also encompasses the Vancouver Arts District. Watch for public art fixtures like whirling kinetic art, larger-than-life murals, and carefully detailed sculptures. The art scene can be enjoyed any time, but visitors on First Fridays experience rotating art exhibits, special tours, and downtown business specials. A typical day in the city's urban core brings out the office workers for lunch at roving food trucks, while evening settles into a humming rhythm of diners and craft brew aficionados ready to explore the nightlife. On weekends, the Vancouver Farmers Market steals the show with its bountiful booths of berries, bouquets, and baked goods. Nearby, Esther Short Park attracts crowds to its buzzing bandstand and Propstra Square. Check out the events calendar to join in on fun runs, wine festivals, concerts in the park, and more."

The following tabulation provides a summary of the "Employment in the Portland Metropolitan Area" publication by the State of Oregon Employment Department:

State of Oregon Employment Department

Workforce & Economic Research Division
QualityInfo.org
May 20, 2025

Portland-Vancouver-Hillsboro, OR-WA MSA Current Labor Force and Industry Employment

				--Change From--	
	April 2025	March 2025	April 2024	March 2025	April 2024
Labor Force Status					
Civilian labor force	1,374,960	1,381,685	1,381,040	-6,725	-6,080
Unemployed	54,717	66,603	48,728	-11,886	5,989
Unemployment rate	4.0%	4.8%	3.5%	-0.8	0.5
Unemployment rate (seasonally adjusted)					
Employed	1,320,243	1,315,082	1,332,312	5,161	-12,069

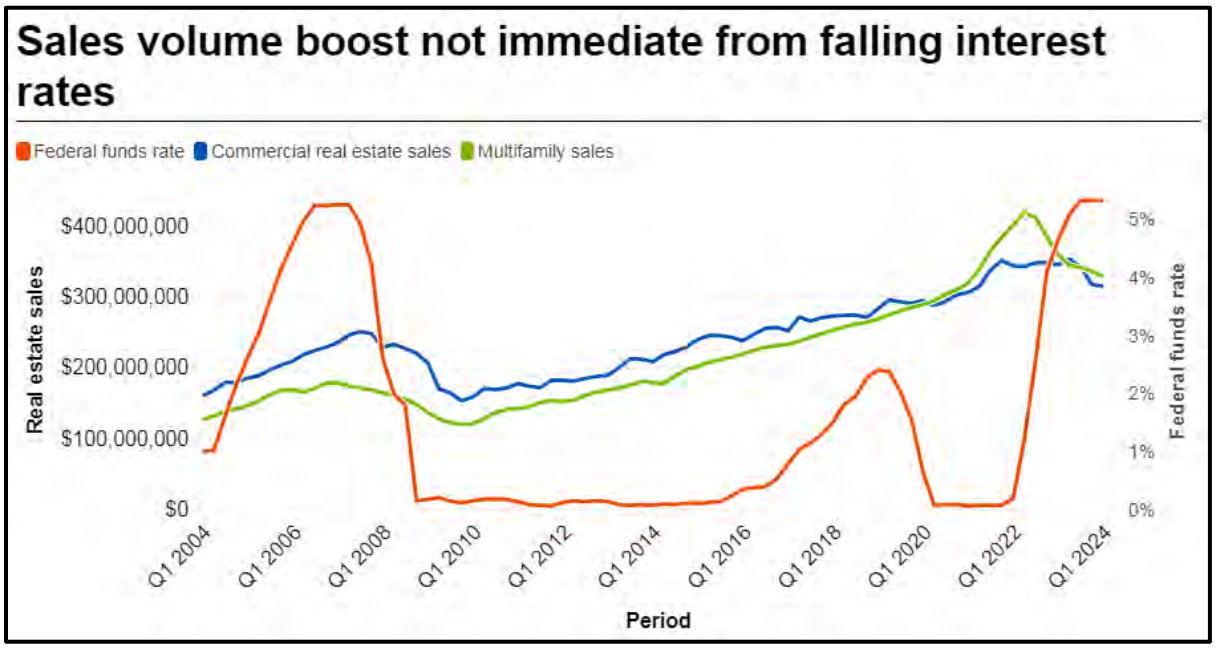
It should be noted that there have been multiple world events over the past three years preceding the valuation date that must be identified including:

- The Coronavirus Pandemic
- Russia's invasion of Ukraine (February 2022)
- There have been historic moves in the interest rate market as a result of historic inflation spikes and associated monetary policy responses. The Federal Reserve has issued 11 rate hikes which is the most aggressive interest rate increase policy since the 1980s.
- The Trump Administration has been pursuing policy that moves away from decades of globalization policy sustained by past United States Presidents. The deglobalization

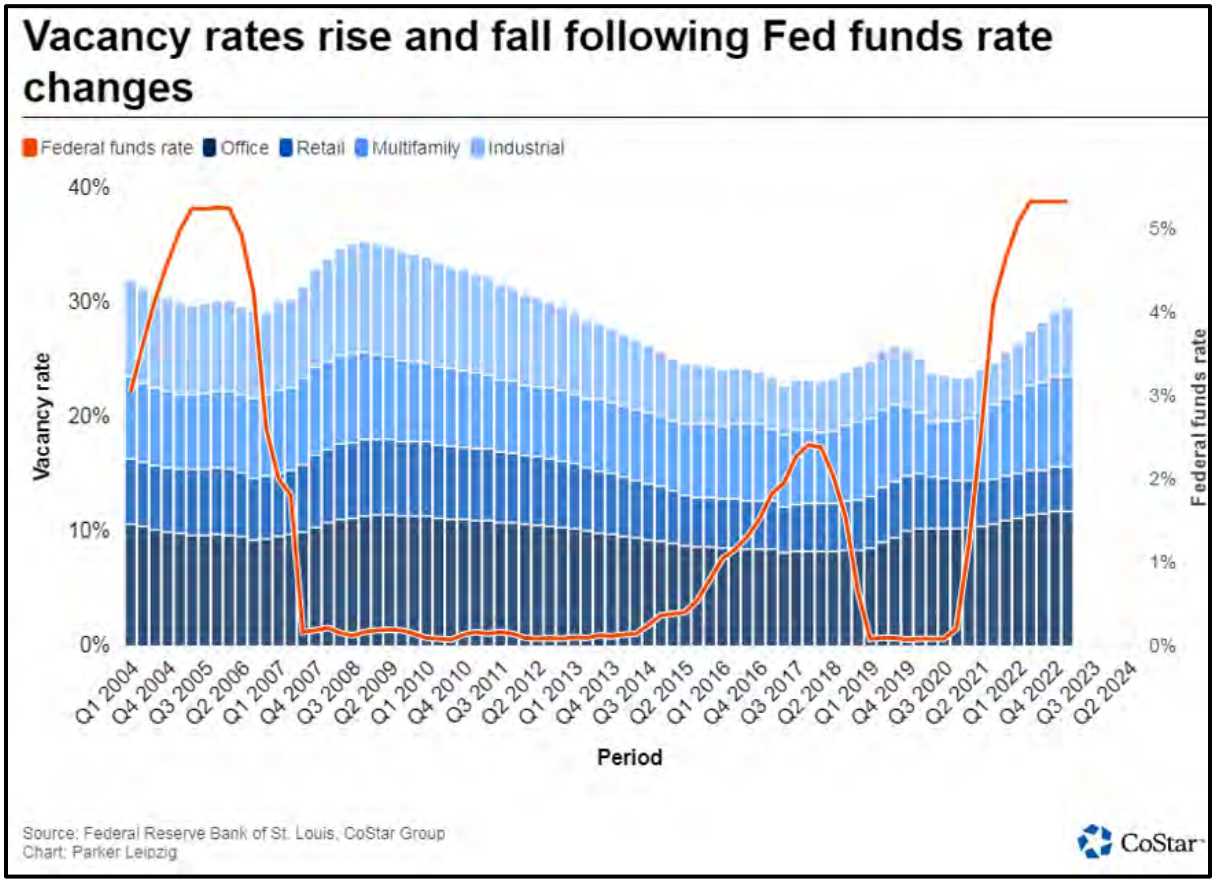
moves appear to create risk of further inflation (in addition to the current interest rate market noted above).

These events have led to substantive increases in the interest rate market and therefore affected real estate borrowing costs. To demonstrate the rise in interest rates previously discussed, the appraisers have included a 3-year 10-Year US Treasury rates chart. As depicted in the chart, interest rates have more than doubled from 2021 to present:

To demonstrate the impacts of the rise in the Federal Funds rate and therefore real estate interest rates, CoStar Properties published the following data in September 2024. The charts provide (1) a comparison of the increase in Federal Funds rate relative to a pullback in commercial and multifamily property sales, (2) a comparison of average sale price relative to the Federal Funds rate, and (3) a comparison of vacancy rates to the Federal Funds rate.



CoStar Properties also cited that 2023 represented a record lending low in an article dated January 26, 2024. The article noted that many market participants have been "content to sit on their hands and see how the market plays out." However, with substantive loan maturations to occur in 2024 and 2025, market shifts may be on the horizon and should continue to be monitored by the appraisers and client.

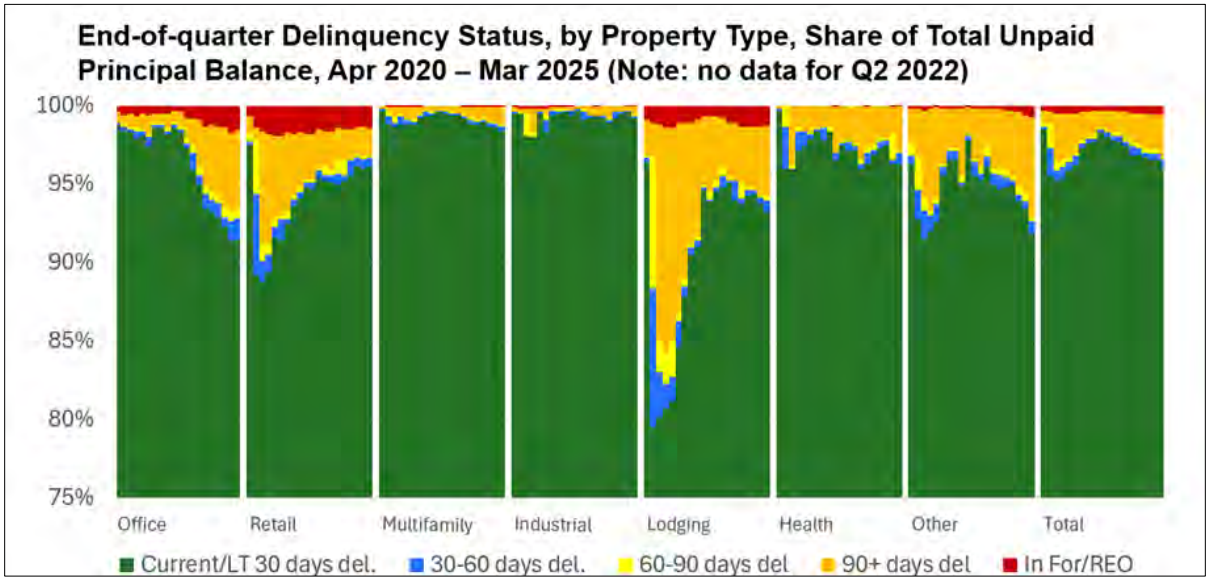


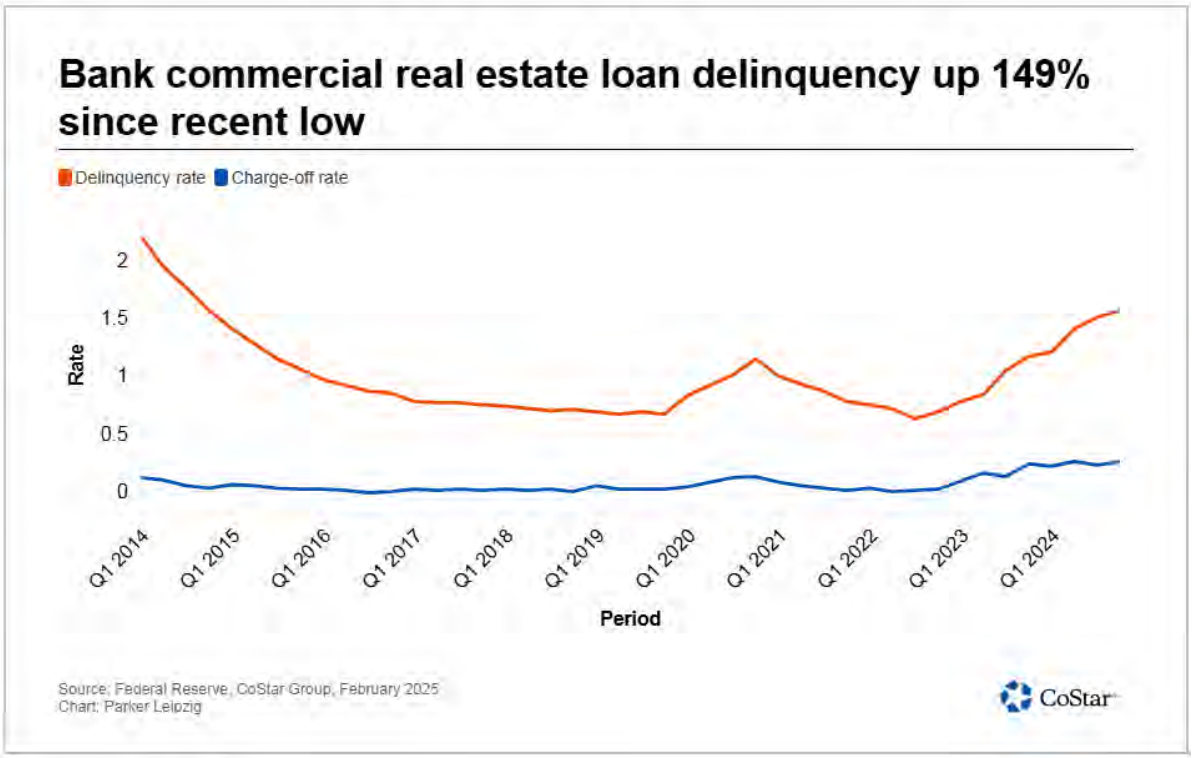
CoStar Properties noted that many 2023 loan maturities were addressed through a "blend and extend" strategy for short-term loan modifications that avoided default situations. This was further confirmed by an article published by The American Banker (dated April 8, 2024) wherein banks across the country are reportedly fight to prevent default issues from becoming bigger problems.

The Portland Business Journal published an article in June 2025 titled "Til Debt Do Them Part" which was focused upon the substantive restructuring of loans between banks and borrowers to avoid default. According to the article, 40 percent of the cities commercial mortgage-backed securities are delinquent. This was further confirmed by MBA (Mortgage Brokers Association) citing that the first quarter of 2025 showed increasing delinquency in the

latest Loan Performance Survey. It should be noted that the MBA data was collected as of December 30, 2024. The survey included $2.6 trillion in loans which represents 54 percent of the estimated $4.8 trillion market share.

On the following page, CoStar Properties provides similar delinquency news.





In summary, there are many economic headwinds that must be monitored by the appraiser, client, and market participants. However, as of the valuation date there are no clearly measurable impacts to real estate values (positive or negative) in the subject market area, these situations must continue to be monitored by the appraisers, client, and market participants. It is evident by the previous data that the rise in interest rates is being recognized by the real estate market.

The subject competes within the following real estate market(s):

Market Segment:	Retail / Office / Multifamily
Market Area Analyzed:	Vancouver
Source:	CoStar Properties

Given the subject's highly flexible zone, the appraiser has included market overviews for the retail, office, and multifamily market segments of the subject area. The following exhibits are respective market overviews from CoStar Properties in the subject submarket:

Retail

Office

Multifamily

In summary, the market overviews reflect stability. The retail market is exhibiting the strongest vacancy rate at 2.5 percent with the office and multifamily market exhibiting higher, but functional rates in the 7s. All three market segments demonstrated rental rate increases from the previous period and capitalization rates have remained stable (but have increased due to the market pushing to offset interest rate increases in a quest for positive leverage). Average sale prices have also increased from the previous period (aside from the office market which is slightly negative at 90 basis points). Lastly, all three market segments are demonstrating absorption (continued leasing demand). In summary, current market reports are depicting a leveling of real estate values (in comparison to growth rates over the past 10 years) with economic headwinds against future growth. These economic headwinds must continue to be monitored by the client, appraiser, and market participants.

3. **Subject Legal Description**

The subject is legally described as follows:

Subdivision	Metes and Bounds
Lot	----
Tax Map & Lot	02N-02E-30 0051 / 0186 / 0185 / 0187
APN	37910109 / 37910150 / 37910149 / 37910151

4. **Delineation of Title (5 Years)**: The referenced title report **did not** reveal any recorded conveyance transactions in the 5-year period preceding the valuation date. A review of proprietary resources did not reveal any attempts to market the subject property.

   The appraiser did however observe a historic real estate marketing sign onsite (KC Fuller of the Fuller Group) and contacted the cited real estate broker regarding historic marketing of the subject. There was no response by the real estate broker in March 2024 while working on the previous appraisal assignment regarding the subject. A sign has not been placed on the subject site since this date based upon information available to the appraiser.

5. **Appraisal Problem and Scope of Work Summary**: This **appraisal problem** seeks to estimate the fair market value attributable to proposed acquisitions of the subject property consisting of fee acquisitions and a temporary construction easement. The purpose of this appraisal assignment is to (1) develop and support a "before situation" fair market value estimate for the subject property disregarding any project influence. Concurrently, an "after situation" fair market value estimate (2) is to be developed and supported for the remainder property. The before and after value opinions are then to be compared in order to develop and support the value diminishment attributable to the project acquisitions. Additionally, the appraiser is to (3) allocate damages or special benefits, if any, to the remaining real property and property rights.

   The highest and best use of the subject property as-if vacant is that of supporting commercial mixed-use redevelopment. As discussed in the highest and best use as improved, the existing improvements contribute value to the larger parcel. Furthermore, considering the subject's site improvements can be retained while the excess land onsite (see high land-to-building ratio relative to market data herein) is developed with additional building(s) as desired by ownership.

   - Given the land and building improvements to be acquired, the relevant scope of analysis focuses upon a **before and after appraisal report** (including land and building improvement valuations).

   - The relevant **scope of research** focused upon recent sales of commercial land, sales of multi-tenant commercial buildings, and leases within multi-tenant commercial

buildings in the Vancouver submarket having similar legal, physical, locational and functional characteristics.

The **reporting scope** is that of an appraisal report as defined in the latest edition of the *Uniform Standards of Professional Appraisal Practice*. The report content is intended to be in general compliance with the Washington State Department of Transportation (WSDOT) Standards as set forth in the WSDOT R/W Manual Chapter 4 (June 2025), the WSDOT Appraisal Report Guide, and Federal Regulations as defined in 49 CFR part 24.

- Relative to land value determination, the relevant valuation methodology is that of the Sales Comparison Approach. Relative to land value determination, market participants are not utilizing the Income Approach (inadequate rental and capitalization rate data for vacant land) nor the Cost Approach (inasmuch as land cannot be created).

- Relative to whole property value determination, the relevant valuation methodology is that of the Sales Comparison Approach and Income Approach. It should be noted that market participants are not utilizing the Cost Approach in the analysis of purchase transactions (and thus the appraiser is not completing a Cost Approach consistent with market behaviors).

The **scope of comparable sale verification** has been identified in the Comparable Market Data Summary Chart which reflects the source and relationship to the transaction for each verifying party. While many of the verifying parties were generally candid, some were not. Much of the additional information requested by the appraiser is not a matter of public record, thus it can be obtained only from these parties and typically cannot be crosschecked against other sources. Thus, the physical and transactional data derived from these interviews are assumed to be accurate. The quality and extent of the verification process should be carefully considered by the reader/client when forming an opinion as to the credibility of the individual comparables, as well as the cumulative database. The manner in which the verifying party is interviewed, and the substance of the questions asked may, in some instances, result in conflicting information; independent verification of the data by the client is encouraged so that a full understanding of each comparable can be developed.

6. **Property Rights to Be Acquired and Effects of Acquisition/Project**: The property rights appraised represent the unencumbered fee simple title, which is defined as follows (Source: *Dictionary of Real Estate Appraisal* published by the Appraisal Institute (2022):

"*Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat*."

This appraisal problem seeks to estimate the difference in fair market value between the subject as of the valuation date (before situation) and the after situation attributable to a partial acquisition(s) of the larger parcel.

7. **Description of Subject Property**:

a. Present Use

The subject has historically supported multiple commercial buildings and multi-tenant occupancy.

It should be noted that the title report identified a 1966 lease with Standard Oil Company (Exception 6). Given that the subject may have historically supported a service station, the site may require an environmental inspection and review by a qualified consultant. This should be investigated by the client.

b. Access/Road Frontages:

The larger parcel is triangular and fronts MacArthur Blvd, N Blandford Dr, and E Mill Plain Blvd. Based upon information available to the appraiser, the subject has historically obtained (common law) access through multiple points along each roadway.

In a standalone redevelopment scenario, the subject would likely obtain access to MacArthur Blvd along its western boundary, N Blandford Dr along its eastern boundary, and E Mill Plain Blvd along its northern boundary.

c. Contours Elevation:

Based upon a review of Clark County GIS Maps, the site exhibits generally level topography with an approximate elevation of +/-290 feet above sea level (ASL). It is generally at grade with the adjoining roadway frontages.

d. Land Area:

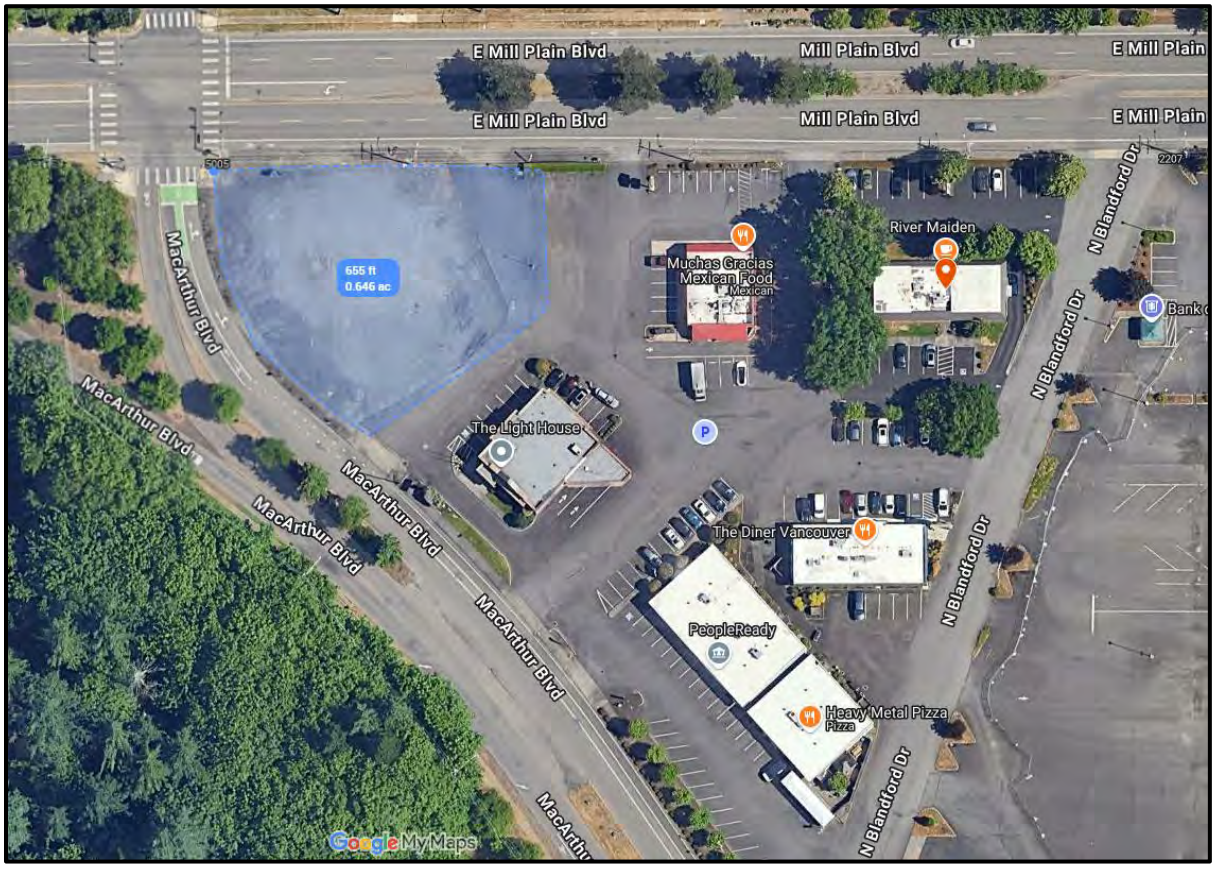
Based upon county assessment records, the total area of the subject larger parcel is approximately 3.61 acres or 157,393 square feet. The parcel exhibits a maximum width of roughly +/-640 feet along its MacArthur Blvd frontage while its frontage to and E Mill Plain Blvd establishes a maximum depth of approximately +/-555 feet.

- It must be noted that the site area identified above recognizes the pending partial acquisitions included as Addenda Exhibit E. For reference, please see the hypothetical conditions stated herein.

e. Land Shape:

The subject property is triangular in shape and competitive in terms of site flexibility.

It should be noted that there is excess land at the subject northwest property corner that could be converted to a pad site and/or support additional structural development. The following exhibit depicts the +/-0.65-acre potential pad site area.



f. Utility Infrastructure:

The subject is fully served in terms of utility infrastructure based upon information available to the appraiser.

g. Zoning:

The subject is zoned HX; Heights District within the City of Vancouver jurisdiction. The HX zoning district is envisioned as a vibrant neighborhood center that is sustainable, healthy, equitable, accessible and safe, and includes a mix of complementary uses, engaging public open space, diverse housing affordable to a wide range of community members and safe multimodal travel opportunities within the district and to transit and nearby neighborhoods. The purpose of the Heights Mixed Use (HX) Plan district is to implement the vision, goals, and policies of the Heights District Plan, and ensure future development is integrated, cohesive, context sensitive and contributes to the overall district vision.

Permitted uses include household living, group living, affordable housing, colleges, cultural institutions, family daycare, childcare center, adult day care, emergency services, eating/drinking establishments, indoor entertainment, retail sales, outdoor sales, offices, parks, open space, and more. There is no minimum lot size. The maximum lot coverage is 100 percent. There is no minimum front, rear, or yard setback. The maximum height is 85 feet for the subject which is in the Activity Center subdistrict. The density allowance in the Activity Center subdistrict is 75 dwelling units per acre.

It should be noted that the subject is part of the Vancouver Heights District Plan ("The Heights District). Just north of the subject is the former Tower Mall site which will be the center of The Heights District which represents an opportunity to create a new vibrant mixed-use urban neighborhood that is strategically located in the heart of Vancouver. The area exhibits easy access to major commercial uses, social services, schools, places of worship, parks and open spaces, and downtown, The District is well-positioned for redevelopment as an up-and-coming neighborhood center. Surrounded by stable yet growing neighborhoods, the district is recognized by many local residents as an area with a quiet character, where people have lived for many generations and are exceptionally friendly. Thus, the Heights Plan is an opportunity for the city to partner with the private sector to bring new investment to central Vancouver, and ensure that new development provides benefits and opportunities to a broad range of residents now and in to the future.

The subject is within the 63-acre Tower Mall Redevelopment, which is the center piece of a broader 205-acre Heights District. The proposed development program is a 20-year timeline to create 1.58 million square feet of residential, commercial, office, hospitality, civic, church, multi-purpose, and parks/open space.

Per Figure 16 of The Heights District Master Plan, the subject will be zoned Mixed Use which allows residential, retail, office, hospitality, civic, institutional, religious facilities, and more in a mixed-use development fashion. The intent is to enrich the public and private life of residents, visitors, and employees with a mix of compatible land uses.

h. Highest and Best Use of Whole Property as-if Vacant:

Highest and Best Use represents an analytical process wherein the physical, legal, social and economic constraints placed upon the property are examined for the purpose of defining that use, which is possible and, concurrently, most financially productive. Inasmuch as potential development activity generally falls within a relatively broad range of legal alternatives, the conclusion of highest and best use is largely influenced by the availability of data, depth of research and observed development by the appraiser. It is essentially a refinement process wherein the broadest range of possible uses are identified

and then examined for legal appropriateness, as well as complementation to the neighborhood and the wealth maximization of the property owner.

Legally Permissible Uses: The subject zoning allows for a variety of commercial development in mixed-use manners (retail, residential, and office). The zone is an intensive commercial zone intended to support a significant redevelopment in a centrally located part of Vancouver. In summary, the subject represents a flexible and comprehensive land use opportunity with many permissible legal uses.

Physical Characteristics: The subject site exhibits size, width, and depth dimensions that can support competitive development scenarios. It benefits from its location within central Vancouver and more particularly The Heights District Plan. The location has competitive transportation linkages. The site's access, level topography, and utility infrastructure capacity further benefit its ability to support development. In summary, the subject site's physical characteristics are conducive to supporting the subject legally permitted uses.

Financial Feasibility: The appraiser was not provided with any documentation regarding construction costs for any specific development scenario relative to the subject site. Based upon the information available and reported herein, the fair market value appears to represent a price where the subject could achieve financial feasibility.

The comparable sale purchase motivations included retail, self-storage, and/or multifamily development in both standalone and mixed-use development plans based upon information available to the appraiser. Given the subject's local street frontage, and internal lot position within The Heights District, multifamily development with the option of ground-floor commercial is the most probable for the subject land tract.

Maximum Productivity: As to maximum productivity, interviews with developers in the local market area along with market data support the economic feasibility of development so-long-as the land pricing is reasonable. As discussed in the market overview, the subject market segment exhibits a stable outlook, however, the economic headwinds identified must continue to be monitored.

Given the physical, legal, financial, and maximally productive tests of highest and best use analysis, the highest and best use of the subject property as-if vacant is that of supporting a multi-family, and/or mixed-use development with ground floor commercial, as permitted in the underlying zone. Office space could also be included as desired by a subject developer.

i. Improvements:

A review of Clark County Assessor records revealed that the subject site improvements include multiple commercial buildings, landscaping, fencing, asphalt, concrete islands and curbing, and more.

It should be noted that Building No. 1 (which will be impacted by the project) is a former Bank of America branch with a drive-through window.

The following exhibit provides a summary of the site layout, buildings, and site improvements followed by a summary chart.

Building No.	Tenants	Address	PIN	Site AC	Year Built	Remodel	CoStar Size (SF)	Assessor Size (SF)	Appraisal SF
1	River Maiden	5301 E Mill Plain Blvd	37910149	0.65	1971	Yes	2,500	3,321	*2,500*
2	Muchas Gracias	5207 E Mill Plain Blvd	37910150	0.46	Unknown	Yes	1,896	1,976	1,976
3	Riverview Bank	915 MacArthur Blvd	37910109	2.17	1972	Yes	3,000	2,908	3,000
4	The Diner	5303 E Mill Plain Blvd	37910151	0.42	1971	2019	2,696	2,560	2,696
5	Strip Retail 1	815 MacArthur Blvd	37910109	----	1972	Yes	4,400	4,500	4,500
6	Strip Retail 2	809 MacArthur Blvd	37910109	----		Yes	3,000	2,908	3,000
Total				**3.61**			**17,492**	**18,173**	**17,672**

Note: Building No. 1 leasable area is sourced from a copy of the lease agreement provided by subject ownership. See Section 7.m. of the Appraisal.

Subject Building Number and Improvement Summary

j. Specialty Items:
There are no specialty items within the acquisition area.

k. Real Property Taxes:
The following exhibit provides a summary of the subject assessor data:

37910109:

Land Value	$1,278,255.00
Building Value	$1,310,745.00
Total Property Value	$2,589,000.00
Total Taxable Value	$2,589,000.00

37910150:

Land Value	$264,495.00
Building Value	$98,905.00
Total Property Value	$363,400.00
Total Taxable Value	$363,400.00

37910149:

Land Value	$373,725.00
Building Value	$189,175.00
Total Property Value	$562,900.00
Total Taxable Value	$562,900.00

37910151:

Land Value	$193,215.00
Building Value	$128,685.00
Total Property Value	$321,900.00
Total Taxable Value	$321,900.00

l. Assessments Current and Pending:
The subject does not have any current or pending special assessments based upon information available to the appraiser.

m. Existing Lease or Rental Data:

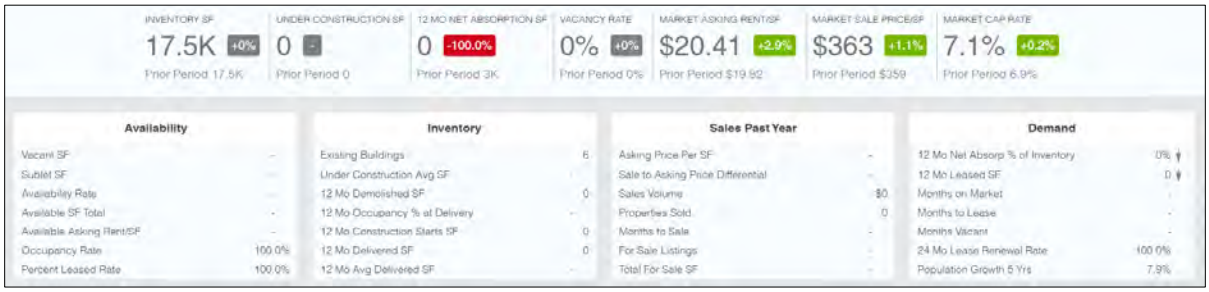
As of the valuation date, the subject property is reportedly occupied by multiple tenants based upon information available to the appraiser.

The appraiser requested rent roll and operating data information from subject ownership relative to the subject property. The only information provided was an email (dated 6/4/25) stating that the lease rate for subject Building No. 1 (occupied by River Maiden) is $65,000 (gross lease rate of $26.00/SF) and that operating expenses run $30,000 (or $12.00/SF) which results in a net rent of $14.00/SF (NNN expense structure). It should be noted that the property owner identified these lease terms as below market. It should be noted that the appraiser has reviewed market lease rates and determined that the reported subject lease terms are in fact below fair market rent.

A copy of the lease, which has been included in the Appraisal Report addenda revealed differing information. Per the lease, the rentable building area is 2,500 square feet (which the appraiser has relied upon herein). The lease began in January 2018 with a 5-year term and four extension options at 5 years each. Rent has escalated since the beginning of the lease and is currently $49,172.76 annually on a triple-net expense structure (NNN). A review of the lease agreement confirmed the lease is in fact based upon a NNN expense structure with reimbursements starting at $3.00/SF annually in 2018 and since adjusted depending on actual property expenses.

- It should be noted however that the scheduled 12-month rent (impending from the effective valuation date) $49,782.39 (recognizing the rent increase schedule for January 2026). This equates to $19.91/SF NNN. The appraiser has utilized this scheduled rent in the valuation of the subject property in the before situation.

Per CoStar Properties, the subject property is 100 percent occupied.



n. Highest and Best Use of Whole Property as Improved:

The subject is improved as a multiple building mixed-use commercial development with onsite parking. The improvements appear to be in competitive condition and while the income and expenses of the property were not provided to the appraiser for feasibility

analysis, the market value of the property as improved exceeds the value of the underlying land tract based upon market data. Thus, the highest and best use as improved is that of continued use of the existing improvements. Alternatively, these improvements can also provide an interim use benefit to the subject in terms of rent income and deferment of holding costs while obtaining land use approvals for redevelopment. These use options meet the legal, physical, financial, and productivity test of highest and best use analysis.

8. **Relevant Approaches to Value**: The relevant scope of analysis is valuation of the subject site as-if vacant and as improved (whole property value based upon its highest and best use) in order to determine the contributory value of the subject components.

   The relevant **scope of research** focused upon recent sales of mixed-use commercial land having similar legal and physical characteristics. Additionally, sales of properties with similar building improvements and characteristics must be researched. Finally, lease comparables for the subject building improvements and excess land area at its northwest corner must be investigated.

   Relative to the subject land valuation, the subject (land) property type is not typically purchased for the purpose of ground lease income generation making the Income Approach inapplicable and irrelevant. Inasmuch as land cannot be created, the Cost Approach is irrelevant. Thus, the relevant methodology is the Sale Comparison Approach.

   Relative to the subject whole property valuation, the Income and Sales Comparison Approach are relevant. The Cost Approach is not regularly utilized by market participants and thus has been excluded herein. It should be noted that the majority of pad site ground lease comparables were part of larger commercial properties (other building improvements similar to the subject circumstance). Thus, the inclusion of ground lease rent for the subject pad site as part of the Income Approach (rather than a standalone land value analysis) is reasonable and supported.

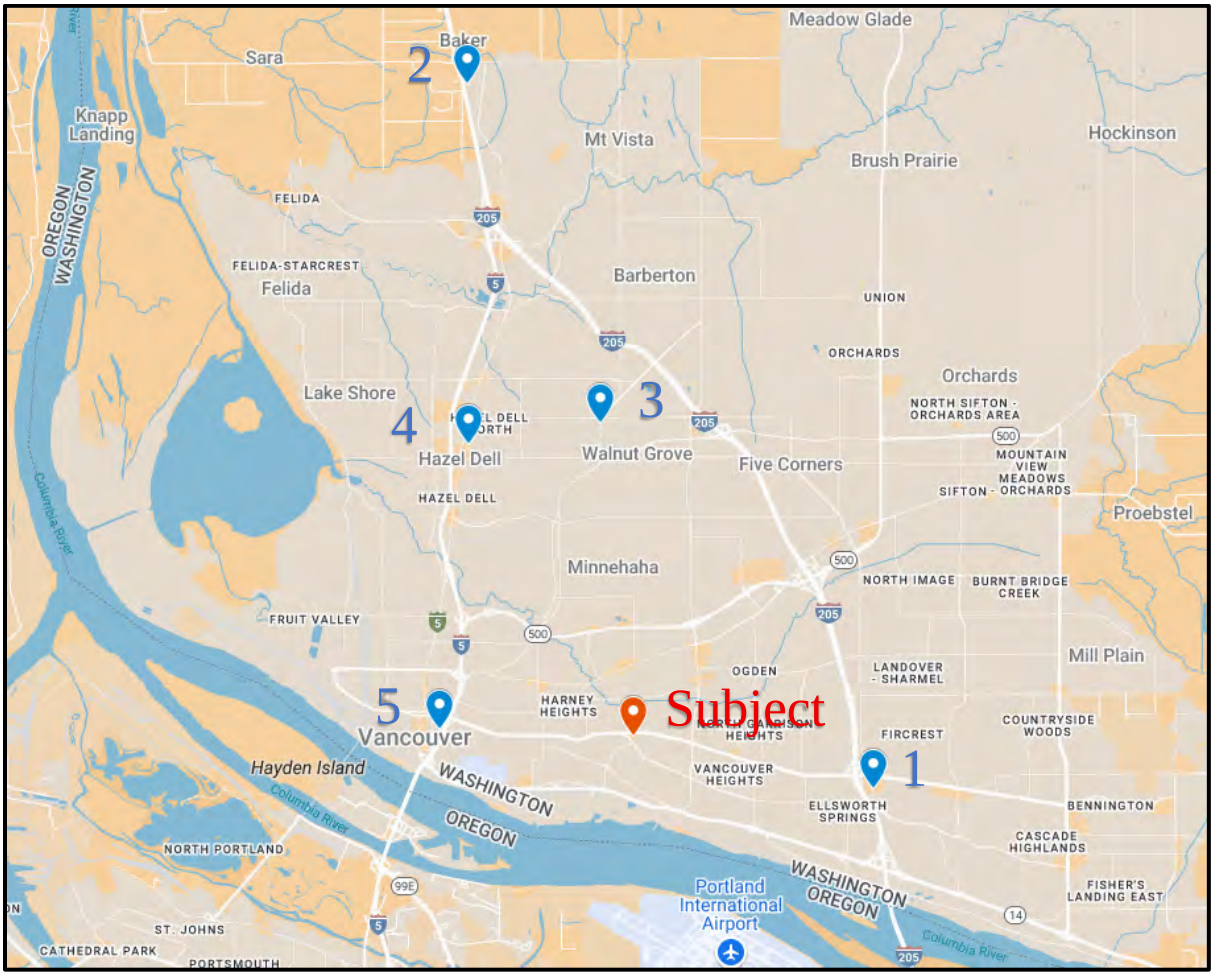
9. **Before - Valuation**:

   a. **Site Valuation**:

      Scope of Data Search: The Sales Comparison Approach is relevant to valuation of the subject property inasmuch as a diligent examination of the marketplace revealed land sale transactions of properties similar to the subject in physical and legal characteristics. The approach is universally applicable to virtually all types of property as long as the comparative data is adequate.

      A review of recent sale transactions occurring in the subject market area revealed the following sales that were deemed to be the most meaningful and similar to the subject property.

Land Comparable Sale Data					
Comparable	**1**	**2**	**3**	**4**	**5**
Identification	165956-001	117770000	97460000 / 97475000	145248000	39220001
Location	480 SE Chkalov Vancouver, WA	17601 NE Union Rd Ridgefield, WA	8702 NE St Johns Rd Vancouver, WA	8115 NE Hwy 99 Vancouver, WA	400 E Evergreen Blvd Vancouver, WA
Zoning	CC; Comm Commercial	GC; General Comm.	CC	GC	CX; City Center
Maximum Height	50'	None	None	None	300'
Site Area (AC)	0.78	4.97	1.42	2.62	1.63
Net Site Area (SF)	33,977	216,493	61,855	114,127	59,600
Functionally	Competitive	Competitive	Competitive	Competitive	Competitive
Access	Paved Public	Paved Public	Paved Public	Paved Public	Paved Public
Orientation	Street Side	Interior	Corner	Interior	Interior
Topography	Level	Level	Mostly Level	Mostly Level	Level
Infrastructure	Available	Available	Available	Available	Available
Improvements	None of value	None of value	None	None	None of value
Road Exposure	Distant I-205	Interstate 5	15,558	17,330	Distant I-5
Sale Date	July 2022	May 2024	May 2024	June 2023	March 2023
Seller	Alder Park Development	Dickys RV & Resort LLC	Maj 88 LLC	Onyx Land Holding LLC	Academy Dev.
Buyer	MAJ Chkalov, LLC	Amerco Real Estate Co	88th Petroleum LLC	99 Seventyeight LLC	East Evergreen Apts
Terms of Sale	Cash-to-seller / Market	Cash-to-seller / Market	Cash-to-seller	Cash-to-seller	Cash-to-seller / Market
Document	6065918	6183433	6181718	6128088	877160
Market Exposure	Broker / +/-19 Days	Broker	+/- 8 months	Private Solicitation	Broker / +/-1 Year
Motivation	Commercial Development	RV Dealership	QSR, 7-eleven, & Fuel	MF Housing	Multifamily
Sale Price	$700,000	$5,200,000	$1,675,000	$3,262,000	$3,120,144
Site Costs	$0	$0	$0	$0	$100,000
Effective Price	$700,000	$5,200,000	$1,675,000	$3,262,000	$3,220,144
Price/SF	**$20.60**	**$24.02**	**$27.08**	**$28.58**	**$54.03**
Verification Source	Ashton Summers Listing Broker 503-747-9586	Brandi Ho Listing Broker 360-823-5100	Brandi Ho Listing Broker 360-823-5112	Jeff Wonder Buyer 360-931-1178	Eric Fuller Listing Broker 360-597-0564
Inspected by:	David E. Balfour, MAI	David E. Balfour, MAI	David E. Balfour, MAI	David E. Balfour, MAI	David E. Balfour, MAI
Date Inspected	10/24/2023	6/9/2025	7/3/2024	7/3/2024	6/9/2025
Signature					

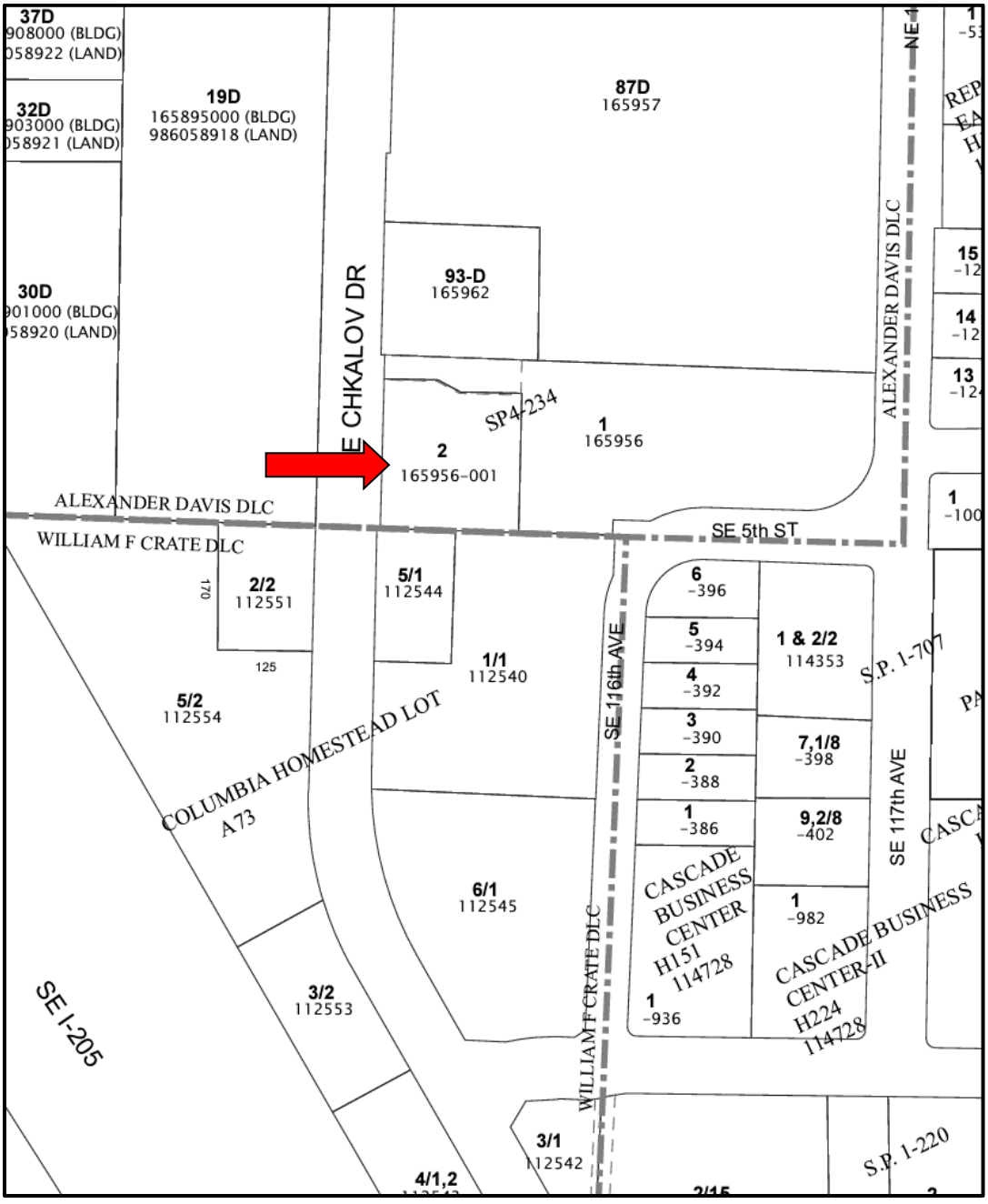

Meadow Glade
Baker
Sara
2
Knapp Landing
Mt Vista
Brush Prairie
Hockinson
OREGON
WASHINGTON
FELIDA
FELIDA-STARCREST
Felida
Barberton
UNION
ORCHARDS
Orchards
NORTH SIFTON - ORCHARDS AREA
Lake Shore
4
3
Hazel Dell
Walnut Grove
Five Corners
MOUNTAIN VIEW MEADOWS
SIFTON - ORCHARDS
HAZEL DELL
Proebstel
Minnehaha
NORTH IMAGE
BURNT BRIDGE CREEK
FRUIT VALLEY
Mill Plain
OGDEN
LANDOVER - SHARMEL
5
Vancouver
HARNEY HEIGHTS
Subject
COUNTRYSIDE WOODS
FIRCREST
Hayden Island
WASHINGTON
OREGON
VANCOUVER HEIGHTS
1
ELLSWORTH SPRINGS
BENNINGTON
CASCADE HIGHLANDS
NORTH PORTLAND
Portland International Airport
FISHER'S LANDING EAST
ST. JOHNS
CATHEDRAL PARK
PORTSMOUTH
Columbia River

Comparable 1

Comparable	**1**	Buyer	MAJ Chkalov, LLC
Identification	165956-001	Terms of Sale	Cash-to-seller / Market
Location	480 SE Chkalov Vancouver, WA	Document Market Exposure	6065918 Broker / +/-19 Days
Zoning	CC; Comm Commercial	Motivation	Commercial Development
Maximum Height	50'	Sale Price	$700,000
Site Area (AC)	0.78	Site Costs	$0
Net Site Area (SF)	33,977	Effective Price	$700,000
Functionally	Competitive	**Price/SF**	**$20.60**
Access	Paved Public	Verification Source	Ashton Summers Listing Broker 503-747-9586
Orientation	Street Side		
Topography	Level		
Infrastructure	Available	Inspected by:	David E. Balfour, MAI
Improvements	None of value	Date Inspected	10/24/2023
Road Exposure	Distant I-205	Signature	
Sale Date	July 2022		
Seller	Alder Park Development LLC		

Notable Comparable Details:

- The comparable site is 0.78-acre in size and is located in east Vancouver approximately 0.25 mile southeast of the Interstate 205 and Mill Plain Blvd interchange. The site is zoned CC and has a maximum height of 50 feet. The site sold to a local development group in July of 2022 for $700,000, or $20.60/SF.
- The site exhibits level topography and at the time of sale was improved as a parking lot, however, the surface improvements were not considered value contributing.
- The listing broker noted that the buyer planned on developing the property as a build-to-suit, but a local credit union offered to buy the property. The site resold in September of 2022 for $1,375,000. The broker noted that the buyer inflated the September 2022 price to account for due diligence expenditures and foregone profit opportunity. Thus, the appraiser has not utilized the September 2022 transaction as a comparable.

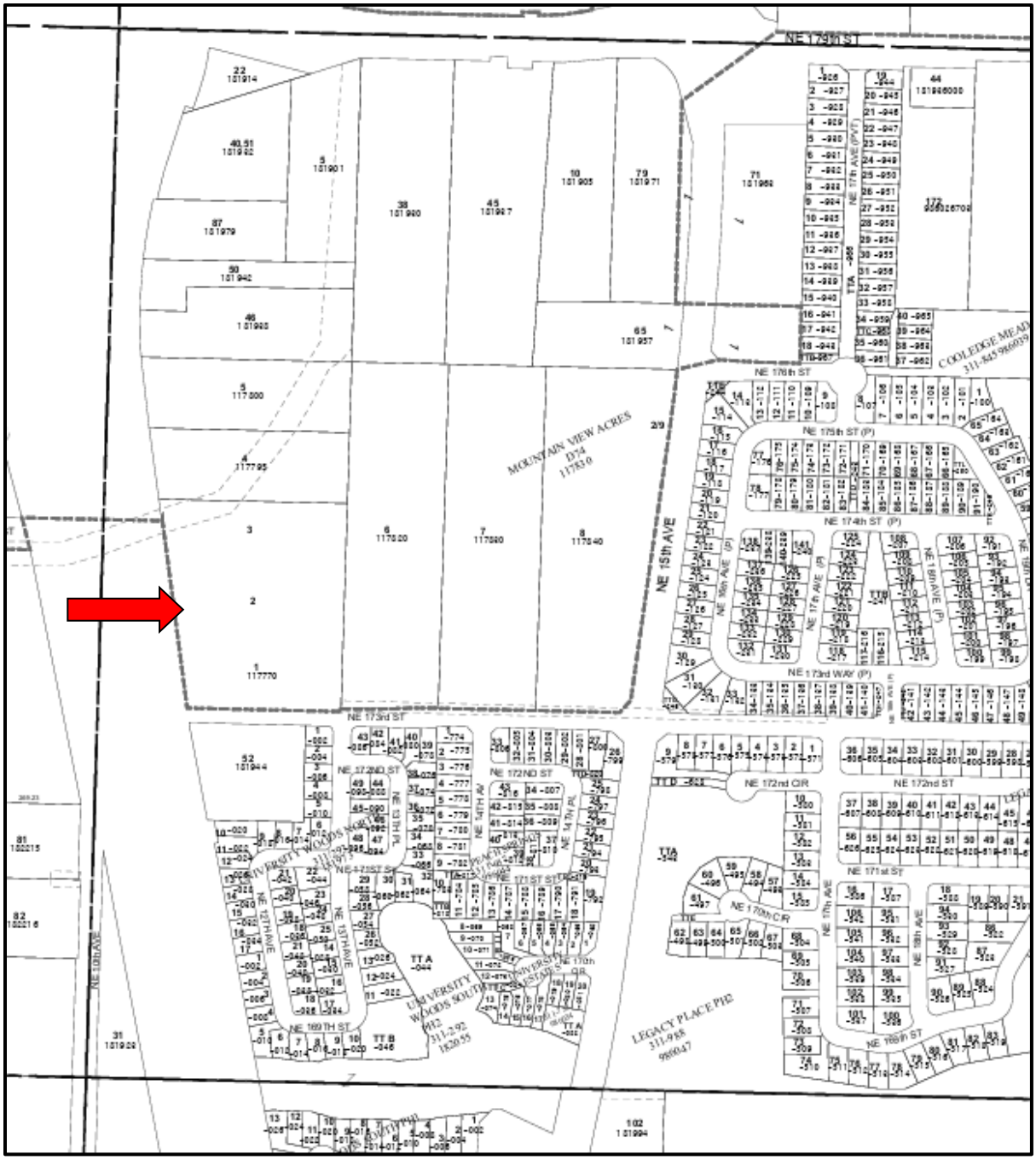

37D
908000 (BLDG)
058922 (LAND)
32D
903000 (BLDG)
058921 (LAND)
19D
165895000 (BLDG)
986058918 (LAND)
87D
165957
30D
901000 (BLDG)
058920 (LAND)
93-D
165962
E CHKALOV DR
ALEXANDER DAVIS DLC
SP4-234
1
165956
2
165956-001
ALEXANDER DAVIS DLC
WILLIAM F CRATE DLC
SE 5th ST
2/2
112551
5/1
112544
1/1
112540
5/2
112554
COLUMBIA HOMESTEAD LOT
A73
SE 116th AVE
6
-396
5
-394
4
-392
3
-390
2
-388
1
-386
1 & 2/2
114353
7,1/8
-398
9,2/8
-402
S.P. 1-707
SE 117th AVE
CASCADE BUSINESS CENTER
H151
114728
1
-982
CASCADE BUSINESS CENTER-II
H224
114728
1
-936
6/1
112545
WILLIAM F CRATE DLC
SE I-205
3/2
112553
3/1
112542
S.P. 1-220
4/1,2

Comparable 2

Comparable	**2**	Buyer	Amerco Real Estate Co
Identification	117770000	Terms of Sale	Cash-to-seller / Market
Location	17601 NE Union Rd Ridgefield, WA	Document	6183433
		Market Exposure	Broker
Zoning	GC; General Comm.	Motivation	RV Dealership
Maximum Height	None	Sale Price	$5,200,000
Site Area (AC)	4.97	Site Costs	$0
Net Site Area (SF)	216,493	Effective Price	$5,200,000
Functionally	Competitive	**Price/SF**	**$24.02**
Access	Paved Public	Verification Source	Brandi Ho Listing Broker 360-823-5100
Orientation	Interior		
Topography	Level		
Infrastructure	Available	Inspected by:	David E. Balfour, MAI
Improvements	None of value	Date Inspected	6/9/2025
Road Exposure	Interstate 5	Signature	
Sale Date	May 2024		
Seller	Dickys RV & Resort LLC		

Notable Comparable Details:

- The comparable site is located at the 179th Street and Interstate 5 interchange (with I-5 exposure across from the Clark County Fairgrounds) and was acquired by UHAUL for a price of $24.02/SF for the net developable site area.
- The buyer intends to develop a 94,764-square-foot storage and trucking facility on the site. Opening is expected in 2026.
- It should be noted that the site was purchased in January 2022 for a price of $19.57/SF (which included other lands). Since that purchase, Ridgefield has grown substantially (due to multiple-phase residential subdivision developments along Royal Road) and the sale included preliminary site clearing and grading. Thus, the 2024 purchase price being above the January 2022 acquisition is reasonable and supportable (and not an issue of market trends).

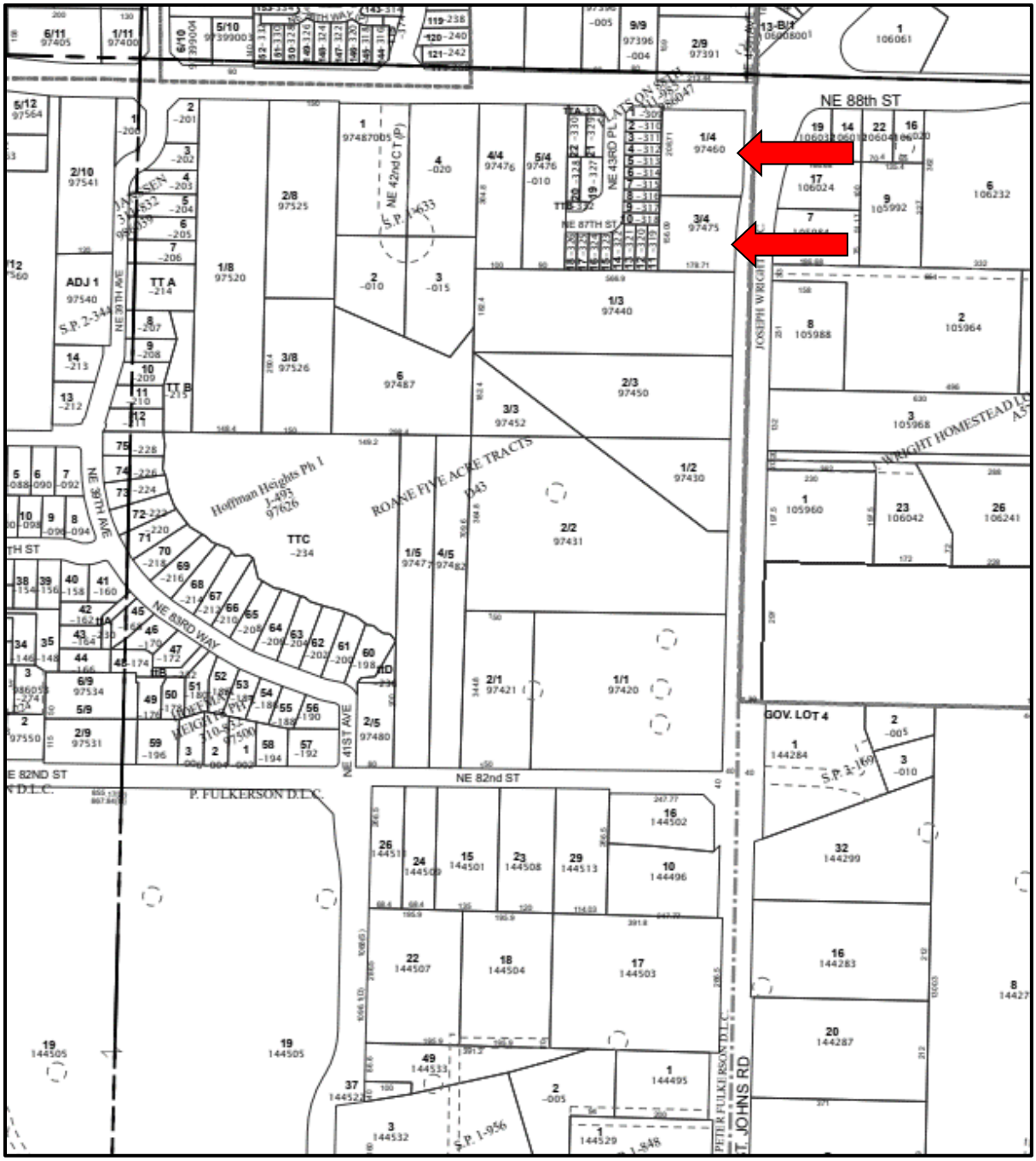

NE 179th ST
NE 178th ST
NE 175th ST (P)
NE 174th ST (P)
NE 173rd WAY (P)
NE 173rd ST
NE 172ND ST
NE 172nd CIR
NE 172nd ST
NE 171st ST
NE 171ST ST
NE 170th CIR
NE 169TH ST
NE 15th AVE
NE 16th AVE (P)
NE 17th AVE (P)
NE 17th AVE
NE 18th AVE
NE 10th AVE
NE 15TH AVE
NE 14TH PL
MOUNTAIN VIEW ACRES
LEGACY PLACE PUD

Comparable 3

Comparable	**3**	Buyer	88th Petroleum LLC
Identification	97460000 / 97475000	Terms of Sale	Cash-to-seller
Location	8702 NE St Johns Rd Vancouver, WA	Document	6181718
		Market Exposure	+/- 8 months
Zoning	CC	Motivation	QSR, 7-eleven, & Fuel
Maximum Height	None	Sale Price	$1,675,000
Site Area (AC)	1.42	Site Costs	$0
Net Site Area (SF)	61,855	Effective Price	$1,675,000
Functionally	Competitive	**Price/SF**	**$27.08**
Access	Paved Public	Verification Source	Brandi Ho Listing Broker 360-823-5112
Orientation	Corner		
Topography	Mostly Level		
Infrastructure	Available	Inspected by:	David E. Balfour, MAI
Improvements	None	Date Inspected	7/3/2024
Road Exposure	15,558	Signature	
Sale Date	May 2024		
Seller	Maj 88 LLC		

Notable Comparable Details:

- The 1.42-acre tract sold for $1,675,000, or $27.08/SF, in May 2024 (no reported concessions). The site is located at the corner of 88th Street and St. Johns Road (roughly 1.6 miles west of I-205). The sale did not include any (frontage, utility, or grading) site improvements.
- The purchasers intend to construct a 7-eleven, fuel station, quick-service retail.
- It should be noted that the seller acquired the site through two separate transactions in September 2022 for a cumulative price of $1,200,500 or $19.41/SF. Then, the seller marketed the sites jointly as a high-exposure swing corner and obtained the current pricing.

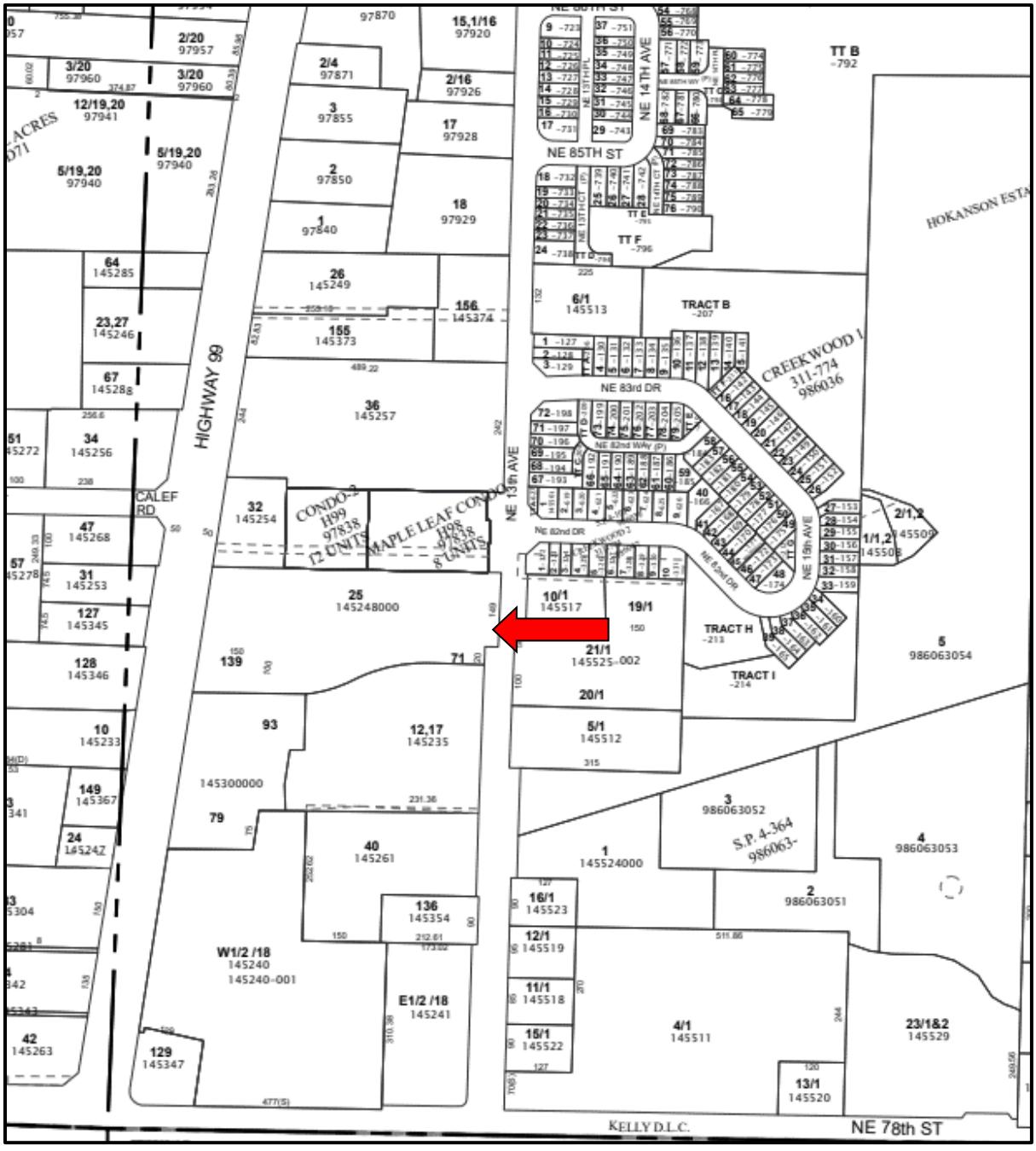

NE 88th ST
NE 87TH ST
NE 82nd ST
NE 82ND ST
NE 83RD WAY
NE 39TH AVE
NE 41ST AVE
NE 42nd CT (P)
NE 43RD PL
JOSEPH WRIGHT
ST JOHNS RD
Hoffman Heights Ph 1
J-493
97626
ROANE FIVE ACRE TRACTS
P. FULKERSON D.L.C.
PETER FULKERSON D.L.C.
GOV. LOT 4
WRIGHT HOMESTEAD
S.P. 2-344
S.P. 2-633
S.P. 3-169
S.P. 1-956
TTA
TTB
TTC
ADJ 1
1/1 97420
1/2 97430
1/3 97440
1/4 97460
2/1 97421
2/2 97431
2/3 97450
3/3 97452
3/4 97475
1/8 97520
2/8 97525
3/8 97526
2/10 97541
6/9 97534
2/9 97531
2/5 97480
1/5 97477
4/5 97482
5/9
5/10
5/12 97564
6/11 97405
1/11 97400
9/9 97396
2/9 97391
13-BLK
106061
106024
105992
106232
105988
105964
105968
105960
106042
106241
144284
144502
144496
144299
144283
144287
144427
144513
144501
144508
144507
144504
144503
144505
144533
144532
144529
144495

Comparable 4

Comparable	**4**	Buyer	99 Seventyeight LLC
Identification	145248000	Terms of Sale	Cash-to-seller
Location	8115 NE Hwy 99 Vancouver, WA	Document	6128088
		Market Exposure	Private Solicitation
Zoning	GC	Motivation	MF Housing
Maximum Height	None	Sale Price	$3,262,000
Site Area (AC)	2.62	Site Costs	$0
Net Site Area (SF)	114,127	Effective Price	$3,262,000
Functionally	Competitive	**Price/SF**	**$28.58**
Access	Paved Public	Verification Source	Jeff Wonder Buyer 360-931-1178
Orientation	Interior		
Topography	Mostly Level		
Infrastructure	Available	Inspected by:	David E. Balfour, MAI
Improvements	None	Date Inspected	7/3/2024
Road Exposure	17,330	Signature	
Sale Date	June 2023		
Seller	Onyx Land Holding LLC		

Notable Comparable Details:

- This 2.62-acre site sold in June of 2023 for $28.58/SF and is located in the Hazel Dell district of Vancouver fronting NE Highway 99. The 78th Street and Interstate 5 interchange is 1,250 feet southwest.
- An interview with the buyer revealed that the final sale price recognized their motivation to expand their existing multifamily development (a parcel removed to the north) as well as the highly competitive commercial market in the area. The buyer confirmed that there were no atypical site costs.
- The purchasers are planning to construct an 84-unit multifamily development on this parcel. It should be noted that the site benefits from having two roadway frontages.

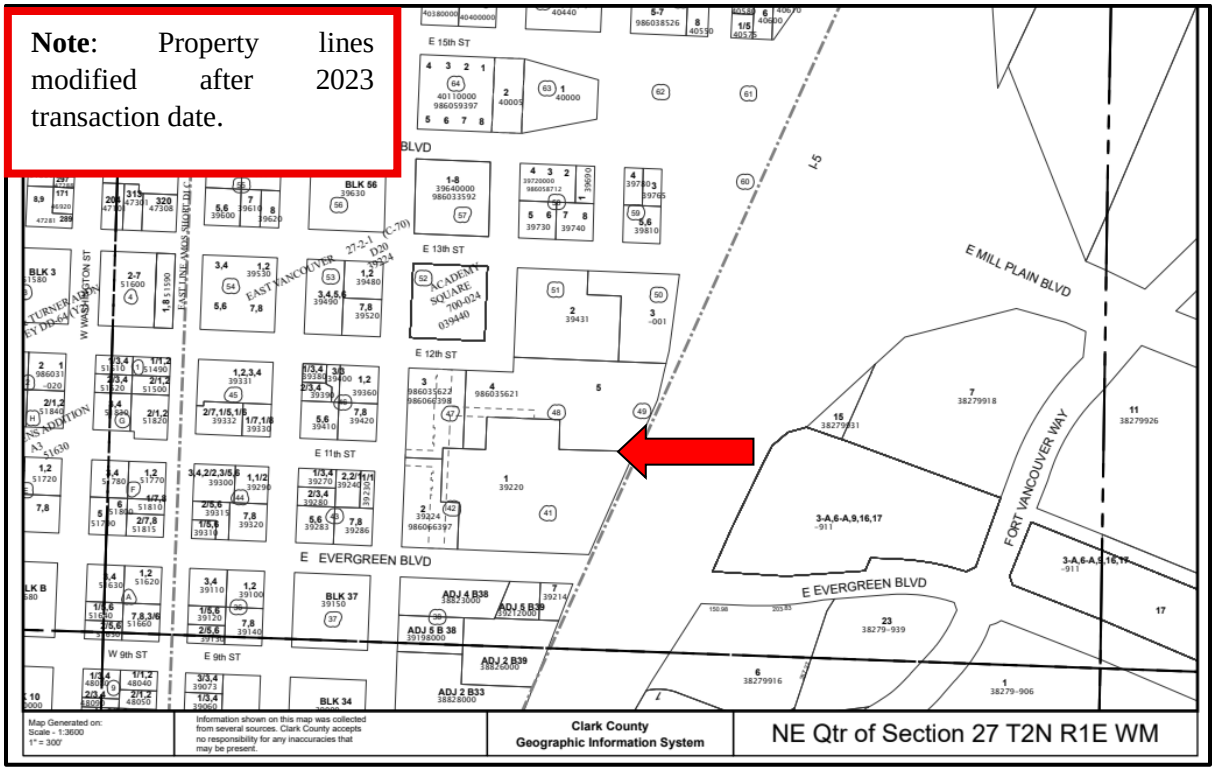

HIGHWAY 99
NE 85TH ST
NE 14TH AVE
NE 13TH AVE
NE 83rd DR
NE 82nd DR
NE 82nd WAy
CALEF RD
CREEKWOOD I
311-774
986036
HOKANSON ESTA
TRACT B
TRACT H
TRACT I
TT B
TT E
TT F
MAPLE LEAF CONDO
CONDO-2
H99 97838
12 UNITS
8 UNITS
KELLY D.L.C.
NE 78th ST
S.P. 4-364
986063-
97870
15,1/16 97920
2/20 97957
3/20 97960
12/19,20 97941
5/19,20 97940
2/4 97871
2/16 97926
3 97855
17 97928
2 97850
1 97840
18 97929
64 145285
26 145249
156 145374
155 145373
23,27 145246
67 145288
36 145257
51 145272
34 145256
32 145254
47 145268
57 145278
31 145253
127 145345
128 145346
25 145248000
139
71
10 145233
149 145367
24 145242
93
145300000
79
12,17 145235
40 145261
136 145354
W1/2 /18 145240
145240-001
E1/2 /18 145241
42 145263
129 145347
6/1 145513
1 145513
10/1 145517
19/1
21/1 145525-002
20/1
5/1 145512
315
1 145524000
3 986063052
2 986063051
4 986063053
5 986063054
16/1 145523
12/1 145519
11/1 145518
15/1 145522
4/1 145511
23/1&2 145529
13/1 145520
2/1,2 145509
1/1,2 145508

Comparable 5

Comparable	**5**	Buyer	East Evergreen Apts
Identification	39220001	Terms of Sale	Cash-to-seller / Market
Location	400 E Evergreen Blvd Vancouver, WA	Document	877160
		Market Exposure	Broker / +/-1 Year
Zoning	CX; City Center	Motivation	Multifamily
Maximum Height	300'	Sale Price	$3,120,144
Site Area (AC)	1.63	Site Costs	$100,000
Net Site Area (SF)	59,600	Effective Price	$3,220,144
Functionally	Competitive	**Price/SF**	**$54.03**
Access	Paved Public	Verification Source	Eric Fuller Listing Broker 360-597-0564
Orientation	Interior		
Topography	Level		
Infrastructure	Available	Inspected by:	David E. Balfour, MAI
Improvements	None of value	Date Inspected	6/9/2025
Road Exposure	Distant I-5	Signature	
Sale Date	March 2023		
Seller	Academy Dev.		

Notable Comparable Details:

- The comparable site is located in Downtown Vancouver at the eastern fringe near Interstate 5 and Evergreen Boulevard. The comparable site was formerly part of the Historic Providence Academy.
- The site was purchased by Marathon Development alongside three other parcels within the academy development through a 2-phase purchase. The listing broker revealed that the other part of the development closed in 2018.
- The site will be a 195-unit multifamily addition to the existing multifamily development recently constructed on the first phase of the project. The development is known as Aegis and Aegis II.

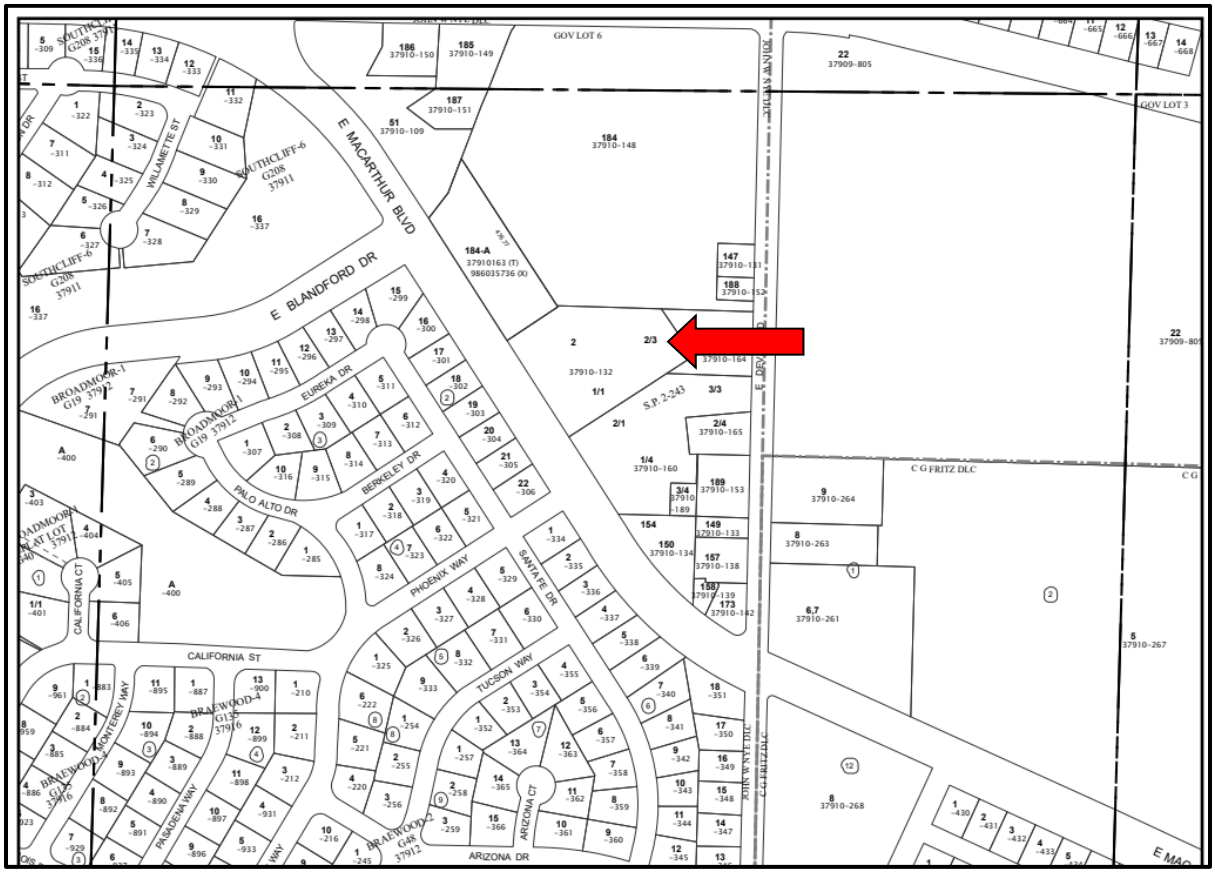

Note: Property lines modified after 2023 transaction date.
E 15th ST
E 13th ST
E 12th ST
E 11th ST
E EVERGREEN BLVD
W 9th ST
E 9th ST
E MILL PLAIN BLVD
FORT VANCOUVER WAY
I-5
ACADEMY SQUARE
Map Generated on:
Scale - 1:3600
1" = 300'
Information shown on this map was collected from several sources. Clark County accepts no responsibility for any inaccuracies that may be present.
Clark County Geographic Information System
NE Qtr of Section 27 T2N R1E WM

Ancillary Data

Identification	37910132	Sale Date	Available
Location	N/o 5400 MacArthur Blvd Vancouver, WA	Seller	Dawk Enterprises, LLC
		Buyer	Available
Zoning	HX; Heights Mixed Use	Terms of Sale	-----
Maximum Height	35' - 85'	Document	-----
Site Area (AC)	2.39	Market Exposure	Broker
Net Site Area (SF)	104,108	Motivation	Multifamily
Functionally	Competitive	Sale Price	$2,950,000
Access	Paved Public	Site Costs	$0
Orientation	Interior	Effective Price	$2,950,000
Topography	Level	**Price/SF**	**$28.34**
Infrastructure	Available	Verification Source	Adam Roselli Listing Broker 360-597-0568
Improvements	None of value		
Road Exposure	Collector		

Notable Comparable Details:

- This ancillary data is the listing of a 2.39-acre development land tract adjoining the subject. The property is being marketed by the prominent brokerage firm Fuller Group for $2.95 million of $28.34/SF.
- The site is level, adjacent to utility infrastructure, and zoned HX; Heights Mixed Use. The broker is marketing the site as a mixed-use piece with the ability to support +/-30 multifamily units per acre at a building height of 50 feet (which is bracketed by allowances in the Vancouver Development Code).
- The listing broker reported that the property has received offers, however, land use and planning uncertainty in The Heights District resulted in transaction failures.


E MACARTHUR BLVD
E BLANDFORD DR
CALIFORNIA ST
ARIZONA DR
EUREKA DR
BERKELEY DR
PALO ALTO DR
PHOENIX WAY
SANTA FE DR
TUCSON WAY
ARIZONA CT
CALIFORNIA CT
WILLAMETTE ST
PASADENA WAY
MONTEREY WAY
GOV LOT 6
GOV LOT 3
C G FRITZ DLC
JOHN W NYE DLC
S.P. 2-243

Correlation and Conclusions of Sales Comparison Approach to Land Value Before:
The sale comparables exhibited sale dates from July 2022 to May 2024 (not recognizing the active ancillary data). In regard to market trend, there is inadequate information to conclude that a positive, or negative, trend adjustment is necessary. The value of these land tracts appears to be primarily driven by zoning capacity and location characteristics. Therefore, the sales have been analyzed on an unadjusted basis.

The comparables bracket the subject tract size, zoning capacity, utility infrastructure availability, roadway exposure, and overall development capacity property characteristics of the subject. The following qualitative analysis has been applied to the subject from the comparable sales:

- **Comparable 1** ($20.60/SF) is similar to the subject in being a commercial development land tract in a suburban pocket of Vancouver proximate to competitive transportation routes. However, the subject zone, future synergy, and development capacities are all superior. Thus, this comparison establishes a lower unit value threshold for the subject.
- **Comparable 5** ($54.03/SF) is a relevant comparable to the subject as it represents a prime mixed use development tract in a gentrifying urban pocket. Given that the comparable's location in Downtown Vancouver is far superior to that of the subject as of the valuation date (with development of The Heights yet to substantially commence as well as the transportation benefits of the Downtown Vancouver location), this comparable establishes an unachievable unit value threshold for the subject. The comparable does however prove, along with the ancillary data below, that mixed-use master plans with flexible zoning allowances and development options command greater value than typical commercial land tracts.
- **Comparable 2** ($24.02/SF) brackets the subject tract area and competes within the unit sale price range of the other comparable data included herein. However, the site is superior in its roadway exposure and transient consumer capture capacity given its location at the 179th Street and Interstate 5 interchange. Furthermore, the site is benefiting from the rapid growth and expansion of nearby Ridgefield, WA which has seen a 3x population increase since 2018. Recognizing the subject tract size and greater affordability in terms of buyer pool, this comparison establishes a lower unit value threshold for the subject.
- **Comparable 3** ($27.08/SF) establishes an upper value threshold for the subject recognizing its swing-corner capacity but smaller (more affordable) parcel size.

- **Comparable 4** ($28.58/SF) was acquired by an adjoining developer for expanded site development and thus exhibits a motivated purchase. The appraiser is influenced to conclude that this sale establishes an upper value threshold for the subject.
- **The Ancillary Data** ($28.34/SF) proves that the subject location and zoning form a unique land pocket in Vancouver given that the commercial land pricing exceeds nearby submarkets except for the premier Downtown Vancouver area. Given that the listing has yet to command a purchase offer that has moved out of the due diligence transaction phase, the appraiser considers the unit value to establish an upper threshold for the subject.

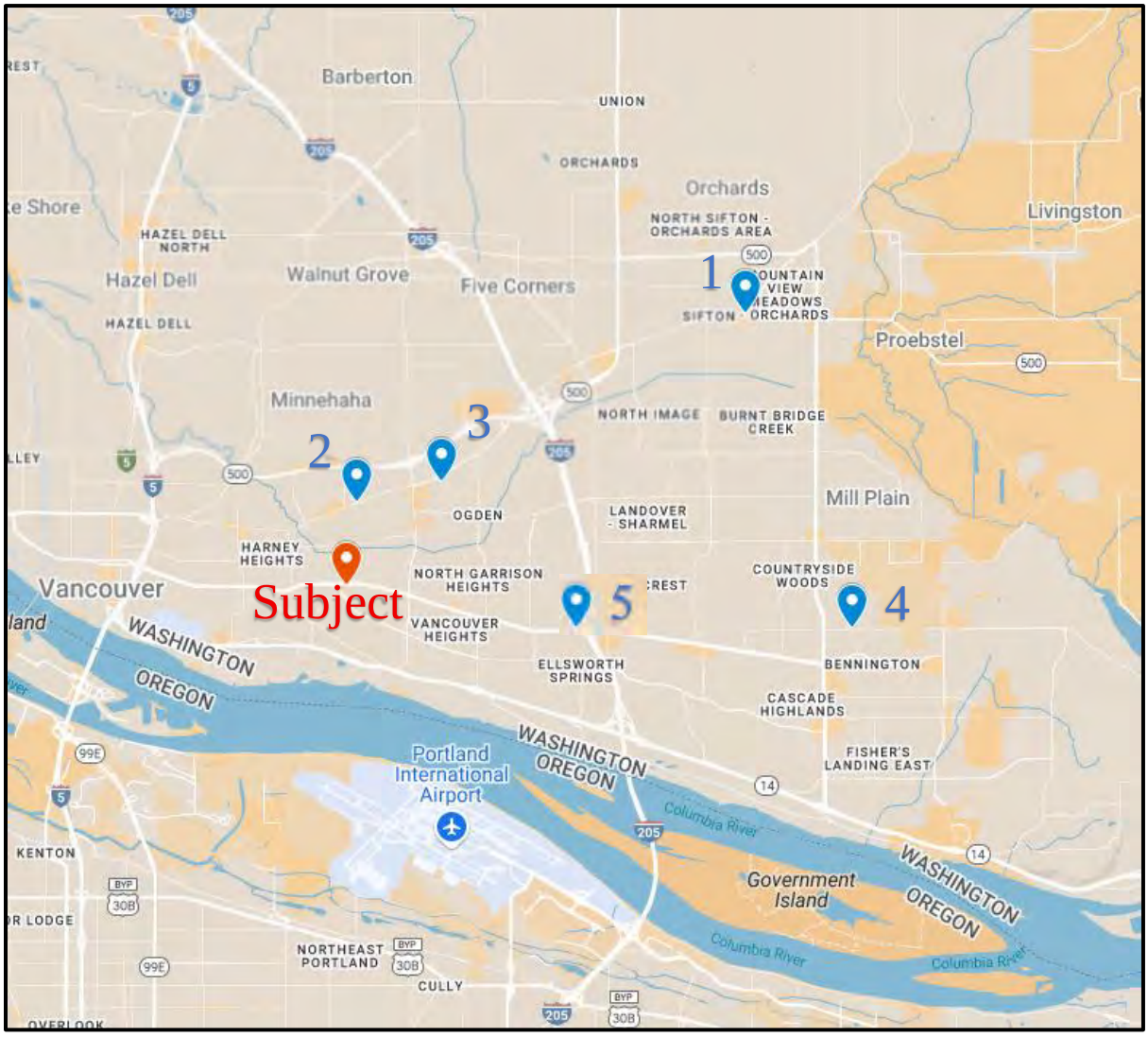
In final analysis, the appraiser is influenced to a price per square foot unit value for the subject that is below the Comparable 3 through 5 indications, and above the indications of Comparable 1 and 2. Utilizing the Ancillary Data to aid in an accurate selection of unit value between the pricing gate of the closed comparable transactions, the appraiser is influenced to a fair market value estimate for the subject site as-if vacant in the before situation of $25.00/SF, or **$3,934,825,** based upon a site area of 157,393 square feet.

b. **Whole Property Valuation**:

The Sales Comparison Approach and Income Approach are relevant to valuation of the subject property.

First, the appraiser will begin with the Sales Comparison Approach. A diligent examination of the marketplace revealed improved property sale transactions of properties similar to the subject in physical and legal characteristics. The approach is universally applicable to virtually all types of property as long as the comparative data is adequate.

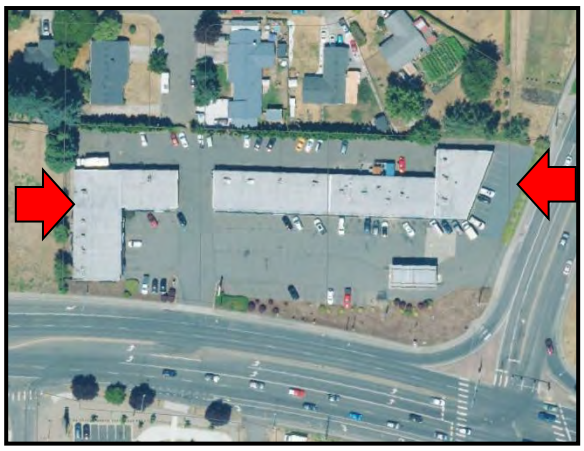
A review of recent sale transactions occurring in the subject market area revealed the following sales that were deemed to be the most meaningful and similar to the subject property.



Sale Comparable Summary

Comparable	1	2	3	4	5	Subject Before
APN	158947000, 158771000, 158772000, 158782000	29450040	108141458	986037954	165729000	37910109/50/49/51
Location	14602 NE Fourth Plain Blvd Vancouver, WA	5508 NE Fourth Plain Blvd Vancouver, WA	7723 NE Fourth Plain Blvd Vancouver, WA	17000 SE 1st Street Vancouver, WA	221 NE 104th Ave Vancouver, WA	5301 E Mill Plain Blvd (et al.) Vancouver, WA
Bldg. Size (SF)	21,626	10,275	13,204	9,722	13,800	17,672
Buildings	2	1	1	1	1	5
Year Built	1980	1987	1994	2016	2000 / 2022 Remodel	1971-1972 / Remodels
Synergy	Neighborhood Strip Retail	Neighborhood Strip Retail	Neighborhood Strip Retail	Neighborhood Strip Retail	Neighborhood Strip Retail	Neighborhood Strip Retail
Exposure (ADT)	26,579	18,983	12,765	6,884	9,075	18,182
Zoning	CC; Community Commercial	CC; Community Commercial	CC; Community Commercial	CN; Neighborhood Commercial	GC; General Commercial	HX; Heights Mixed Use
Site Size (AC)	1.83	0.78	1.03	1.01	1.49	3.61
LBR	3.69	3.31	3.40	4.53	4.70	8.90
Parking Spaces	79	33	43	36	70	116
Parking Ratio	3.65	3.21	3.26	3.70	5.07	6.56
% Occupied	90%	----	100%	100%	100%	100%
Seller	Slosar Properties, Inc	B&T Property Group, LLC	J & L Investco-II LLC	Craciun Retail LLC	Honey Badger Properties	Tower Mall Properties, LLC
Buyer	HAD Partners/ HDABT, LLC	5508 NE 4th Plain Blvd, LLC	Council for the Homeless	Graggenmore Prop LLC	MPPA Investors, LLC	----
Document	6148708	6226467	6178411	6240454	6214463	----
Marketing Period	+/-4 Months	Private solicitation	Private solicitation	+/-6 Months	+/-5 Months	----
Terms of Sale	Cash-to-seller / Market	Cash-to-seller / Market	Cash-to-seller / Market	Cash-to-seller / Market	Cash-to-seller / Market	----
Sale Date	October 2023	January 2025	April 2024	March 2025	October 2024	----
Sale Price	$3,575,000	$2,000,000	$3,400,000	$2,600,000	$4,650,000	----
Costs/Concessions	$0	$0	$0	$0	$0	----
Effective Sale Price	$3,575,000	$2,000,000	$3,400,000	$2,600,000	$4,650,000	$5,036,500
Effective Sale $/SF	**$165.31**	**$194.65**	**$257.50**	**$267.43**	**$336.96**	**$285.00**
Motivation	Investor	Investor	Investor	Investor	Investor	Investor
NOI	$217,311	DND	DND	$172,325	$324,615	$318,267
NOI/SF	$10.05	----	----	$17.73	$23.52	$18.01
Overall Rate	6.08%	----	----	6.63%	6.98%	6.32%
Confirmation	Deborah Ewing Listing Broker 360-597-0566	Makelbe Marsa Seller 360-909-6626	James Patterson Seller 503-432-6090	Brett Irons Listing Broker 360-597-0574	Harris K. Niazi Listing Broker 248-770-9974	Assessor Information Site Inspection Public/Proprietary Resources
Date of Inspection	5/27/2025	5/27/2025	5/27/2025	5/27/2025	5/27/2025	5/27/2025
Inspected/Confirmed by:	David E. Balfour, MAI	David E. Balfour, MAI	David E. Balfour, MAI	David E. Balfour, MAI	David E. Balfour, MAI	David E. Balfour, MAI
Signature						

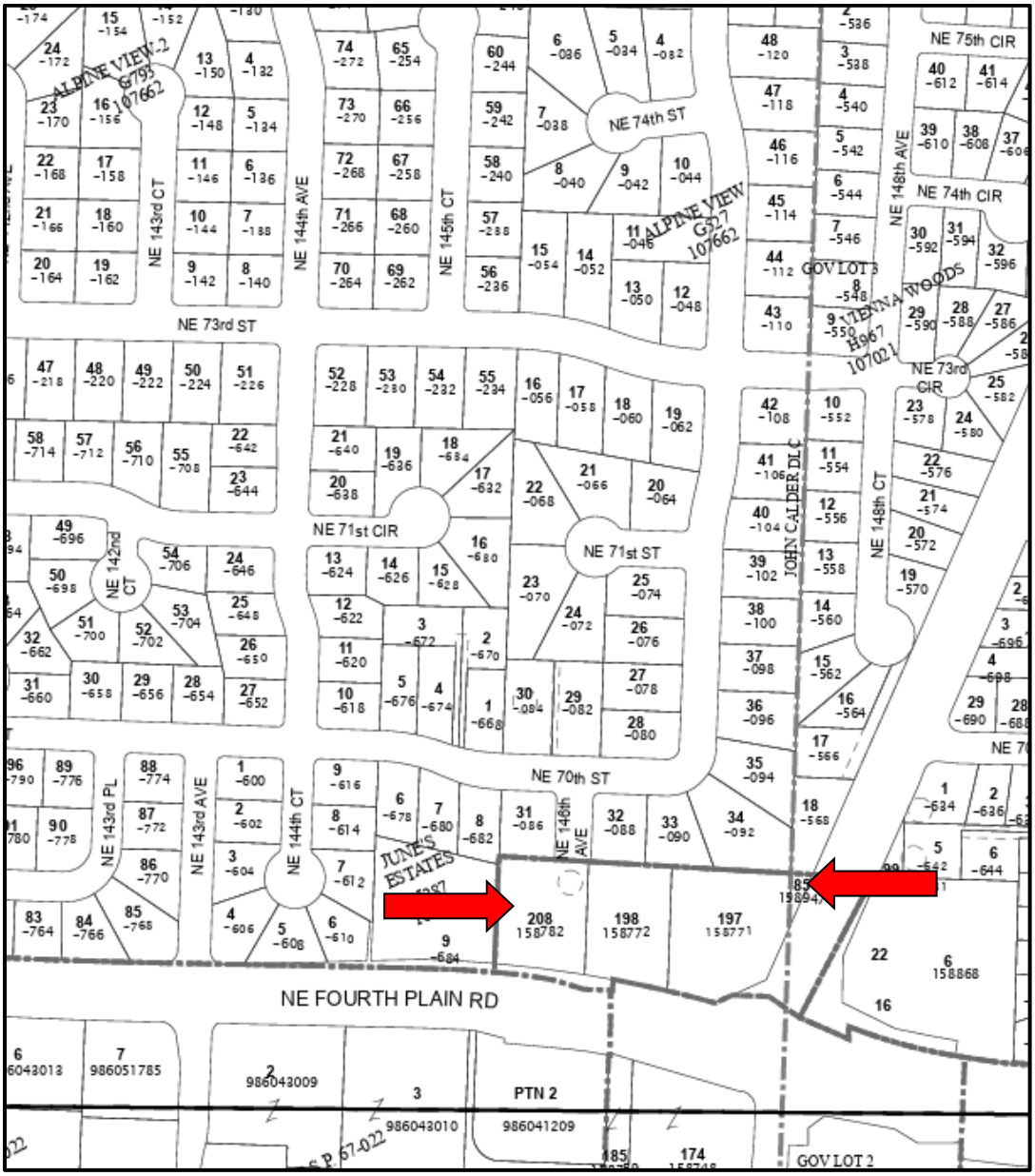
Comparable 1



APN	158947000, 158771000, 158772000, 158782000	Terms of Sale	Cash-to-seller / Market
Location	14602 NE Fourth Plain Blvd Vancouver, WA	Sale Date	October 2023
		Sale Price	$3,575,000
Bldg. Size (SF)	21,626	Costs/Concessions	$0
Buildings	2	Effective Sale Price	$3,575,000
Year Built	1980	**Effective Sale $/SF**	**$165.31**
Synergy	Neighborhood Strip Retail	Motivation	Investor
Exposure (ADT)	589	NOI	$217,311
Zoning	CC; Community Commercial	NOI/SF	$10.05
Site Size (AC)	1.83	Overall Rate	6.08%
LBR	3.69	Confirmation	Deborah Ewing
Parking Spaces	79		Listing Broker
Parking Ratio	3.65		360-597-0566
% Occupied	90%	Date of Inspection	5/27/2025
Seller	Slosar Properties, Inc	Inspected/Confirmed by:	David E. Balfour, MAI
Buyer	HAD Partners/ HDABT, LLC	Signature	
Document	6148708		
Marketing Period	+/-4 Months		

Notable Comparable Details:

- This is the sale of a 1980 neighborhood strip mall along Fourth Plain Boulevard that closed in October 2023 for $3.575 million.
- Per the listing broker, the property sold on a 6.08 percent capitalization rate and an NOI/SF of $10.05 NNN.
- It should be noted that the NOI/SF competes at the lower end of the Vancouver submarket and thus the sale price is also at the lower end of the comparable data researched by the appraiser.
- The property features two buildings and a reported leasable area of 21,626 square feet.

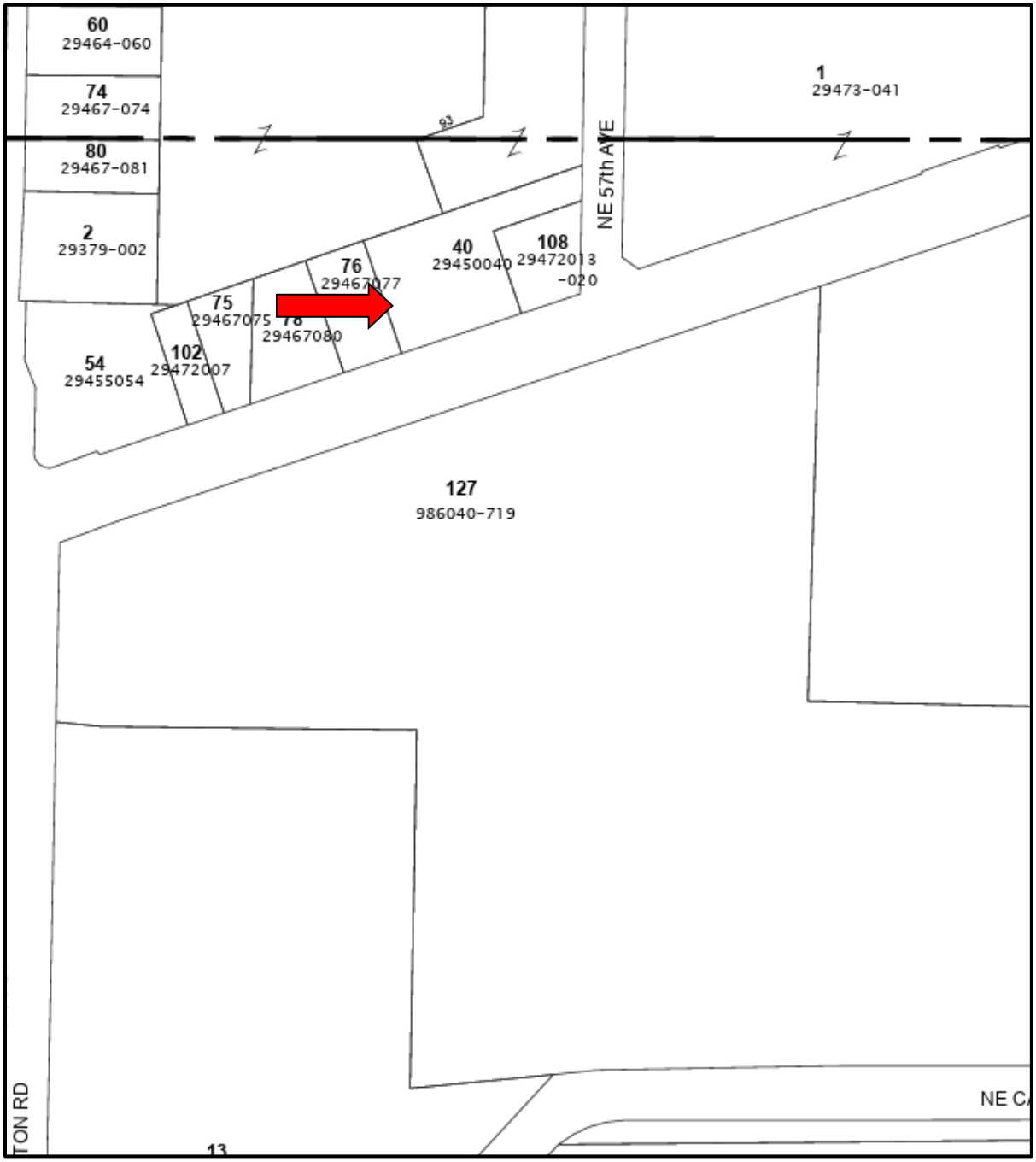

NE 73rd ST
NE 71st CIR
NE 71st ST
NE 70th ST
NE 74th ST
NE 75th CIR
NE 74th CIR
NE 73rd CIR
NE 143rd CT
NE 144th AVE
NE 145th CT
NE 142nd CT
NE 143rd PL
NE 143rd AVE
NE 144th CT
NE 146th AVE
NE 148th AVE
NE 148th CT
JOHN CALDER DLC
ALPINE VIEW
VIENNA WOODS
JUNE'S ESTATES
NE FOURTH PLAIN RD
GOV LOT 3
GOV LOT 2
PTN 2
208
158782
198
158772
197
158771
986043009
986043010
986041209

Comparable 2

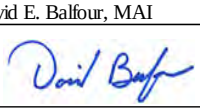
APN	29450040	Terms of Sale	Cash-to-seller / Market
Location	5508 NE Fourth Plain Blvd Vancouver, WA	Sale Date Sale Price	January 2025 $2,000,000
Bldg. Size (SF)	10,275	Costs/Concessions	$0
Buildings	1	Effective Sale Price	$2,000,000
Year Built	1987	**Effective Sale $/SF**	**$194.65**
Synergy	Neighborhood Strip Retail	Motivation	Investor
Exposure (ADT)	599	NOI	DND
Zoning	CC; Community Commercial	NOI/SF	----
Site Size (AC)	0.78	Overall Rate	----
LBR	3.31	Confirmation	Makelbe Marsa Seller 360-909-6626
Parking Spaces	33		
Parking Ratio	3.21		
% Occupied	----	Date of Inspection	5/27/2025
Seller	B&T Property Group, LLC	Inspected/Confirmed by:	David E. Balfour, MAI
Buyer	5508 NE 4th Plain Blvd, LLC	Signature	
Document	6226467		
Marketing Period	Private solicitation		

Notable Comparable Details:

- This is the sale of a 1987 neighborhood strip mall along Fourth Plain Boulevard that closed in January 2025 for $2 million.
- The property features one multi-tenant retail building and a reported leasable area of 10,275 square feet.
- Neither the seller nor buyer in the transaction provided any additional information to the appraiser. The exact NOI and capitalization rate are unknown.
    - Per the CoStar Properties, the income at the time of sale was estimated at an average of $16.50/SF which after consideration of unrecoverable expenses results in an anticipated capitalization rate of 6.42 percent which is in line with market data.

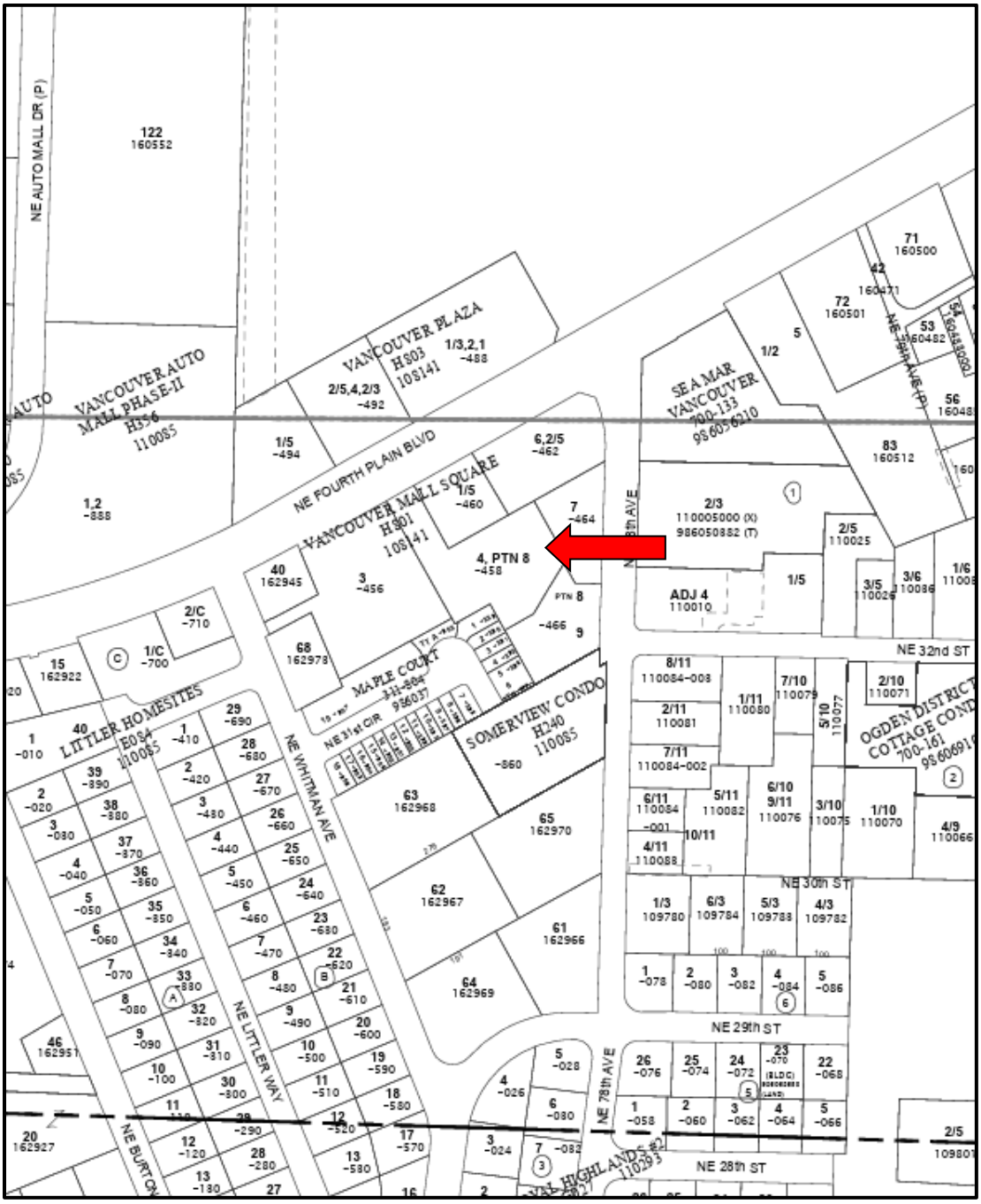

60
29464-060
74
29467-074
80
29467-081
2
29379-002
54
29455054
102
29472007
75
29467075
76
29467077
78
29467080
40
29450040
108
29472013
-020
1
29473-041
NE 57th AVE
127
986040-719
TON RD
13
NE C

Comparable 3

APN	108141458	Terms of Sale	Cash-to-seller / Market
Location	7723 NE Fourth Plain Blvd Vancouver, WA	Sale Date Sale Price	April 2024 $3,400,000
Bldg. Size (SF)	13,204	Costs/Concessions	$0
Buildings	1	Effective Sale Price	$3,400,000
Year Built	1994	**Effective Sale $/SF**	**$257.50**
Synergy	Neighborhood Strip Retail	Motivation	Investor
Exposure (ADT)	389	NOI	DND
Zoning	CC; Community Commercial	NOI/SF	----
Site Size (AC)	1.03	Overall Rate	----
LBR	3.40	Confirmation	James Patterson Seller 503-432-6090
Parking Spaces	43		
Parking Ratio	3.26		
% Occupied	100%	Date of Inspection	5/27/2025
Seller	J & L Investco-II LLC	Inspected/Confirmed by:	David E. Balfour, MAI
Buyer	Council for the Homeless	Signature	
Document	6178411		
Marketing Period	Private solicitation		

Notable Comparable Details:

- This is the sale of a 1994 neighborhood strip mall along Fourth Plain Boulevard that closed in April 2024 for $3.4 million. It should be noted that the land tract to the north was also transacted by the parties outside of this transaction.
- Neither the seller nor buyer in the transaction provided any additional information to the appraiser. The exact NOI and capitalization rate are unknown.
    - Per the CoStar Properties, the income at the time of sale was estimated at an average of $22.00/SF which after consideration of unrecoverable expenses results in an anticipated capitalization rate of 7.0 percent which is in line with market data.

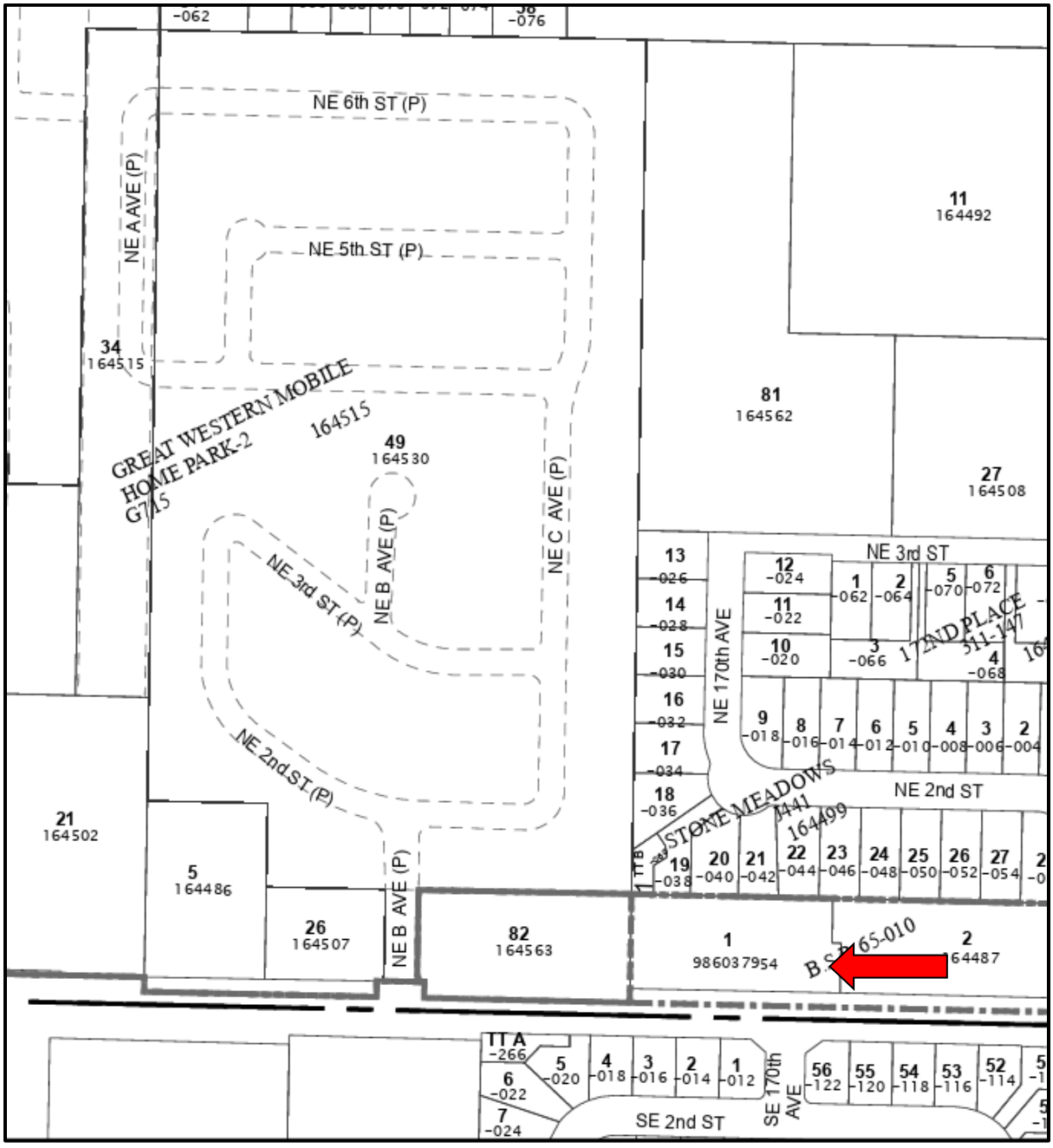

NE AUTO MALL DR (P)
VANCOUVER AUTO MALL PHASE-II
VANCOUVER PLAZA
NE FOURTH PLAIN BLVD
VANCOUVER MALL SQUARE
SEA MAR VANCOUVER
NE 32nd ST
NE 30th ST
NE 29th ST
NE 28th ST
NE 31st CIR
MAPLE COURT
SOMERVIEW CONDO
LITTLER HOMESITES
NE WHITMAN AVE
NE LITTLER WAY
NE BURTON
NE 78th AVE
OGDEN DISTRICT COTTAGE COND
ADJ 4

Comparable 4

APN	986037954	Terms of Sale	Cash-to-seller / Market
Location	17000 SE 1st Street Vancouver, WA	Sale Date Sale Price	March 2025 $2,600,000
Bldg. Size (SF)	9,722	Costs/Concessions	$0
Buildings	1	Effective Sale Price	$2,600,000
Year Built	2016	**Effective Sale $/SF**	**$267.43**
Synergy	Neighborhood Strip Retail	Motivation	Investor
Exposure (ADT)	160	NOI	$172,325
Zoning	CN; Neighborhood Commercial	NOI/SF	$17.73
Site Size (AC)	1.01	Overall Rate	6.63%
LBR	4.53	Confirmation	Brett Irons
Parking Spaces	36		Listing Broker
Parking Ratio	3.70		360-597-0574
% Occupied	100%	Date of Inspection	5/27/2025
Seller	Craciun Retail LLC	Inspected/Confirmed by:	David E. Balfour, MAI
Buyer	Graggenmore Prop LLC	Signature	
Document	6240454		
Marketing Period	+/-6 Months		

Notable Comparable Details:

- This is the sale of a 2016 neighborhood strip mall along 1st Street that closed in March 2025 for $2.6 million.
- Per the listing broker, the property sold on a 6.63 percent capitalization rate and an NOI/SF of $17.73 NNN.
- The property features a reported leasable area of 9,722 square feet and is fully occupied.

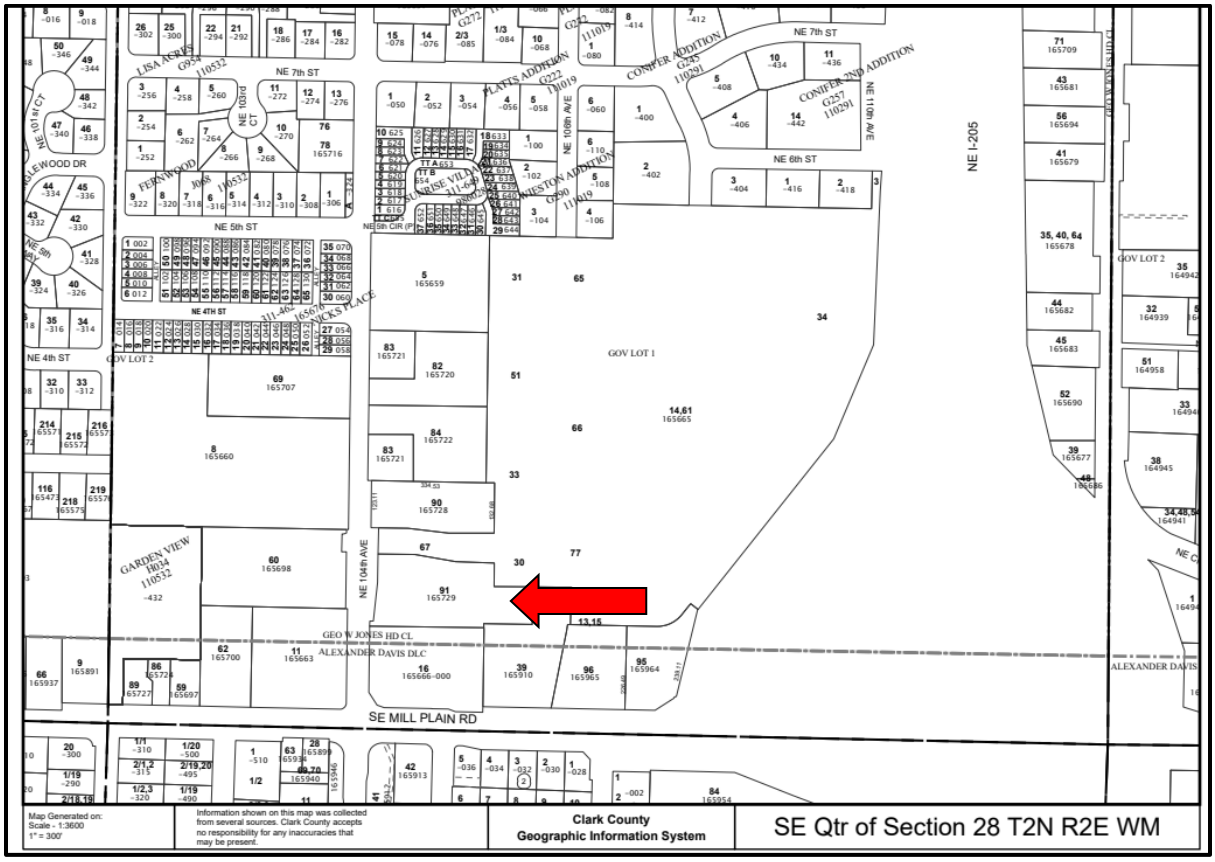

NE 6th ST (P)
NE A AVE (P)
NE 5th ST (P)
34
164515
GREAT WESTERN MOBILE HOME PARK-2
G715
164515
49
164530
NE B AVE (P)
NE C AVE (P)
NE 3rd ST (P)
NE 2nd ST (P)
11
164492
81
164562
27
164508
NE 3rd ST
NE 170th AVE
17TH PLACE
NE 2nd ST
STONE MEADOWS
164499
21
164502
5
164486
26
164507
82
164563
1
986037954
2
164487
SE 2nd ST
SE 170th AVE

Comparable 5

APN	165729000	Terms of Sale	Cash-to-seller / Market
Location	221 NE 104th Ave Vancouver, WA	Sale Date Sale Price	October 2024 $4,650,000
Bldg. Size (SF)	13,800	Costs/Concessions	$0
Buildings	1	Effective Sale Price	$4,650,000
Year Built	2000 / 2022 Remodel	**Effective Sale $/SF**	**$336.96**
Synergy	Neighborhood Strip Retail	Motivation	Investor
Exposure (ADT)	9,075	NOI	$324,615
Zoning	GC; General Commercial	NOI/SF	$23.52
Site Size (AC)	1.49	Overall Rate	6.98%
LBR	4.70	Confirmation	Harris K. Niazi Listing Broker 248-770-9974
Parking Spaces	70		
Parking Ratio	5.07		
% Occupied	100%	Date of Inspection	5/27/2025
Seller	Honey Badger Properties	Inspected/Confirmed by:	David E. Balfour, MAI
Buyer	MPPA Investors, LLC	Signature	
Document	6214463		
Marketing Period	+/-5 Months		

Notable Comparable Details:

- This is the sale of a 2000 neighborhood strip mall that was remodeled in 2022 along just north of Mill Plain Boulevard that closed in October 2024 for $4.65 million.
- Per the listing broker, the property sold on a 6.98 percent capitalization rate and an NOI/SF of $23.52 NNN.
- The property features a reported leasable area of 13,800 square feet and is fully occupied.
- It includes an overflow parking lot on the east portion of the site.
- It should be noted that the Interstate 205 and Mill Plain Boulevard interchange is immediately southeast of the site.


NE 7th ST
NE 6th ST
NE 5th ST
NE 4th ST
NE 5th CIR
NE 4TH ST
NE 103rd CT
NE 101st CT
NE 106th AVE
NE 104th AVE
NE 100th AVE
NE I-205
SE MILL PLAIN RD
LISA ACRES
PLATTS ADDITION
CONIFER ADDITION
CONIFER 2ND ADDITION
FERNWOOD
FERNWOOD JOHS
ALDERWOOD DR
ALDERWOOD PL
ALDERWOOD CT
TT & L
TT & S
PRIMROSE VILLA
JAMESTON ADDITION
HENDRICKS PLACE
GARDEN VIEW HGTS
GOV LOT 1
GOV LOT 2
GEO W JONES HD CL
ALEXANDER DAVIS DLC
ALEXANDER DAVIS
Map Generated on:
Scale - 1:3600
1" = 300'
Information shown on this map was collected from several sources. Clark County accepts no responsibility for any inaccuracies that may be present.
Clark County
Geographic Information System
SE Qtr of Section 28 T2N R2E WM

Correlation and Conclusions of Sales Comparison Approach to Land Value Before:
The sale comparables exhibited sale dates from October 2023 to March 2025. In regard to market trend, there is inadequate information to conclude that a positive, or negative, trend adjustment is necessary. The value of these properties is primarily driven by physical characteristics (quality, condition, location, etc.) and net operating income capacity. Therefore, the sales have been analyzed on an unadjusted basis.

The comparables bracket the subject leasable area, zoning allowances, building characteristics, access connectivity, roadway exposure, and overall income capacity (property) characteristics of the subject. It should be noted that the subject land component and therefore land-to-building ratio exceed the competing market range. The subject land-to-building ratio is substantially above the typical market range of 3.31 to 4.53 (and average of 3.73). Thus, the only way to account for this component in the subject valuation is to reconcile the subject pad lease rent potential relative to the competing properties. The following qualitative analysis has been applied to the subject from the comparable sales:

- **Comparable 1** and **Comparable 2** are inferior in building conditions and (rental) income capacity. Thus, these comparisons establish lower unit value thresholds.
- Conversely, **Comparable 5** is superior in building condition and age as well as (rental) income capacity. These characteristics are, however, offset by the subject superior land tract area and pad lease rent potential. Overall, this comparable establishes an unachievable unit value threshold for the subject.
- **Comparable 4** is superior in age and (rental) income capacity for the subject building component. However, this is offset by the subject's superior land tract area and pad lease rent potential. The subject is also superior in roadway exposure. Recognizing the tethering influences, this comparison establishes a lower unit value threshold for the subject.
- **Comparable 3** is inferior to the subject in roadway exposure and rent income capacity overall (building and land). Thus, it establishes a lower unit value threshold.

In final analysis, the appraiser is influenced to a price per square foot unit value for the subject that is below the Comparable 5 indication, and above the Comparable 4 indication. Given that the subject rental income capacity is more inline with that of Comparable 4, the appraiser is influenced to a unit value at the lower end of this comparable pricing threshold. Given all considerations, the appraiser is influenced to a fair market value estimate for the subject as improved (recognizing all land area, building, and site improvements) in the before situation of $285.00/SF, or **$5,036,500 (rounded),** based upon a building area of 17,672 square feet (recognizing and capturing the subject excess land and potential pad rent).

Income Approach

The Income Approach is an appraisal process that converts anticipated benefits derived from the ownership of income-producing property into a market value estimate. As such, valuation of the subject net operating income potential will consist of capitalizing market rent, which has been adjusted for non-recoverable expenses. Purchasers of this property type consider competitive return on equity when investing capital and generally rely upon direct capitalization analysis. Direct capitalization is the relevant method of valuation inasmuch as the subject has achieved stabilized occupancy.

Investor purchasers often utilize the Income Approach as the primary valuation methodology when analyzing a purchase decision, then, utilize the Sales Comparison Approach to measure value indications to similar property types in the marketplace.

Occupancy/Operating History

The subject property is occupied by multiple tenants. The appraiser was not provided with all lease information regarding the subject (only the River Maiden lease agreement). It should be noted that lease data regarding Muchas Gracias in Building No. 2 and The Diner in Building No. 4 were extracted from an appraisal report (prepared by Colliers International) provided by subject ownership to the City of Vancouver (client). Thus, the appraiser has cited these lease agreements in the appraisal report and determined the lease rates to also be equivalent to market.

A review of market data revealed that the River Maiden lease agreement is well supported and reasonable. Thus, the appraiser finds the contract rent to be equivalent to market rent for this component of the subject property.

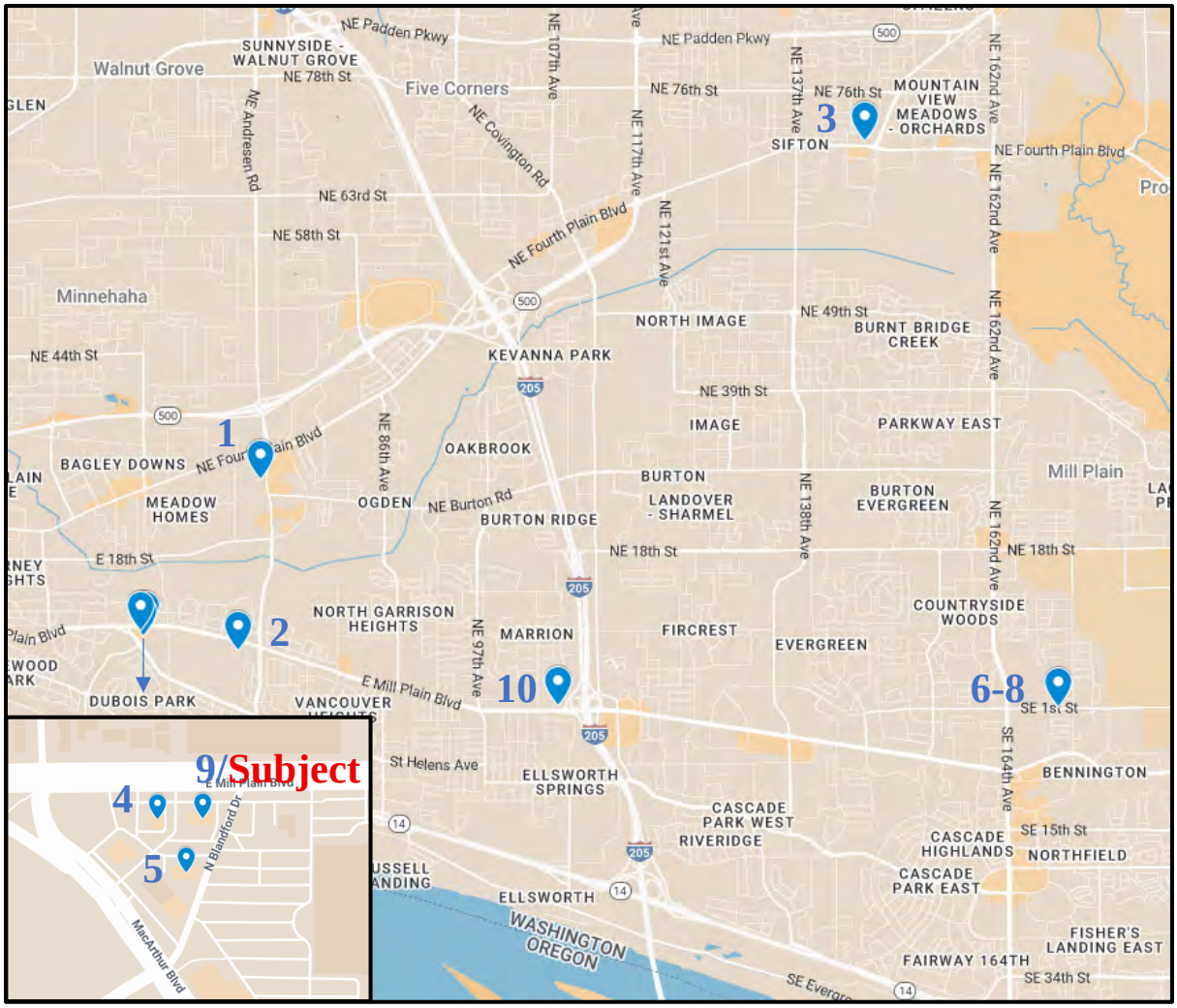
Market Rent Analysis/Comparison

The appraiser investigated available and recently consummated lease agreements in buildings/spaces similar to the subject as presented in the following tabulation. The lease comparable rates have been adjusted to reflect net operating income per square foot figures in order to reconcile the various lease expense structures. This also avoids estimating actual expenses for the subject property. The adjusted triple-net rent per square foot range is $13.00/SF to $23.52/SF.

It is evident from the comparable data that the subject contract rent is equivalent to market rent, at **$19.91/SF** (no adjustment for TIs). Thus, the appraiser has utilized this market rent in the annual rent estimate below (APOD – Annual Property Operating Data Summary). Furthermore, the Muchas Gracias and The Diner leases are equivalent to market. Thus, these rates have also be utilized in the annual rent estimate. Relative to the Building No. 3, 5, and 6 spaces, the appraiser has determined a market rent (based upon current conditions observed from the adjoining rights-of-way) of $15.00/SF NNN. The appraiser determined that Lease Comparable 4 through 10 established unachievable value thresholds (space condition, roadway

exposure, and more) while Comparable 2 and 3 were inferior in condition based upon information provided by the leasing broker. Nonetheless, the appraiser is influenced to a lease rate at the upper end of the threshold range ($10.92/SF to $16.15/SF NNN). Lastly, the vacant land pad rent has been estimated at $60,000 annually based upon the lease comparable data.

APOD Summary		
Pad Rent	0.65 AC	$60,000
Market Rent on NNN Basis / Building No. 1	$19.91	$49,782
Market Rent on NNN Basis / Building No. 2	$16.15	$31,912
Market Rent on NNN Basis / Building No. 3	$15.00	$45,000
Market Rent on NNN Basis / Building No. 4	$17.83	$48,070
Market Rent on NNN Basis / Building No. 5	$15.00	$67,500
Market Rent on NNN Basis / Building No. 6	$15.00	$45,000
Annual Rent		**$347,264**

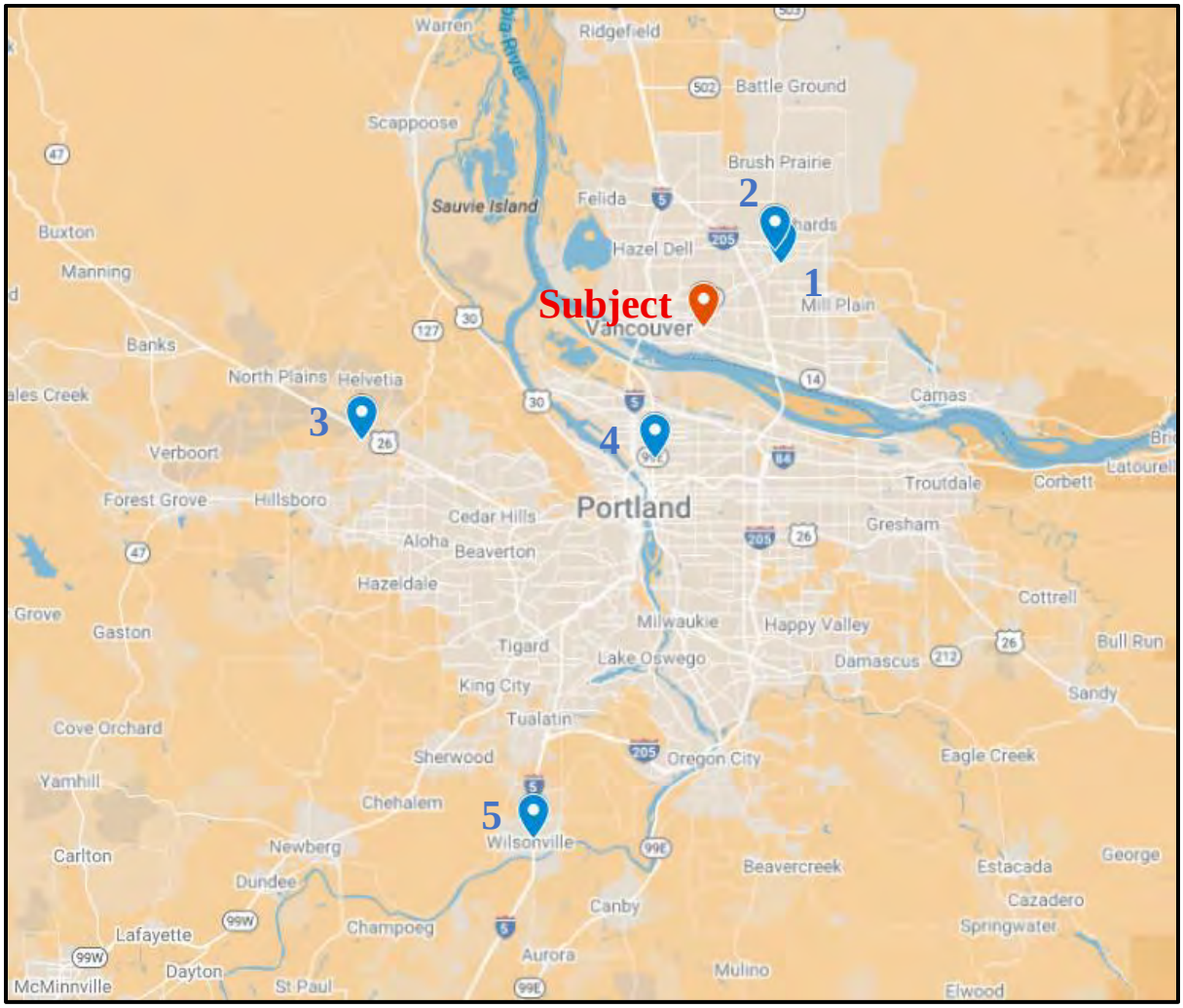


Building Lease Comparables

Comparable	6	7	8	9	10
APN	986037954	986037954	986037954	37910149	165729000
Location	17000 SE 1st Street Vancouver, WA	17000 SE 1st Street Vancouver, WA	17000 SE 1st Street Vancouver, WA	5301 E Mill Plain Blvd Vancouver, WA	221 NE 104th Ave Vancouver, WA
Lessor	Craggenmore Prop, LLC	Craggenmore Prop, LLC	Craggenmore Prop, LLC	Tower Mall Prop.	MPPA Investors
Tenant	Tectonic	Checked & Balanced	K9 Doggy Playcare	River Maiden	Medical / Retail
Year Built (Bldg)	2016	2016	2016	1972 / Drive-thru	2000 / 2022 Remodel
Occupancy	100.00%	100.00%	100.00%	100.00%	86% / 100%
Building (SF)	9,722	9,722	9,722	2,500	13,800
Leased Space (SF)	3,462	1,423	4,884	2,500	1,440 - 4,320
Site Area (AC)	1.01	1.01	1.01	0.65	1.49
Land-to-Building Ratio	4.53	4.53	4.53	11.33	4.70
Condition	Good	Good	Good	Above average	Good
Start Date	2023	2023	2022	2017	DND
Term	5 Years	5 Years	5 Years	5 Years + Options	3+ Years
Lease Rate/SF	$17.89	$19.09	$18.85	$19.91	$23.52
Escalations	DND	DND	DND	3%	DND
Expense Structure	NNN	NNN	NNN	NNN	NNN
Op Ex/SF (CAM)	---- *($4.70/SF)*	---- *($4.70/SF)*	---- *($4.70/SF)*	----	---- *($9.25/SF)*
Free Rent Adj./SF	----	----	----	----	$0.00
TI Adj./SF	----	----	----	*($6.00)*	$0.00
Effective Rent/SF	**$17.89**	**$19.09**	**$18.85**	**$19.91**	**$23.52**
Confirmation Source	Brett Irons Listing Broker 360-597-0574	Brett Irons Listing Broker 360-597-0574	Brett Irons Listing Broker 360-597-0574	Ownership appraisal Assessor Records Site Inspection	Harris Niazi Listing Broker 248-770-9974

Building Lease Comparables

Comparable	1	2	3	4	5
APN	162953000	37909802	158947000, et al.	37910150	37910151
Location	2700 NE Andresen Rd Vancouver, WA	6503 E Mill Plain Blvd Vancouver, WA	14602 NE Fourth Plain Vancouver, WA	5207 E Mill Plain Blvd Vancouver, WA	5303 E Mill Plain Blvd Vancouver, WA
Lessor	Andresen Plaza SPE	Park Hill Shopping Center	HAD Partners/ HDABT	Tower Mall Prop.	Tower Mall Prop.
Tenant	Multiple Retail	DND	Multiple Retail	Muchas Gracias	The Diner
Year Built (Bldg)	1974 / 1994 Remodel	1966 / Not reported	1980	1972 / Drive-thru	1972 / Drive-thru
Occupancy	91.10%	100.00%	90.00%	100.00%	100.00%
Building (SF)	36,782	17,170	21,626	1,976	2,696
Leased Space (SF)	1,550 +	2,000	620 +	1,976	2,696
Site Area (AC)	2.1	4	1.83	0.46	0.42
Land-to-Building Ratio	2.49	10.15	3.69	10.14	6.79
Condition	Average	Fair	Average	Average	Average
Start Date	Multiple	May 2025	DND	2024	2023
Term	Various	3 Years	3+ Years	5 Years	5 Years
Lease Rate/SF	$13.00 - $23.00	$16.80	$10.92	$16.15	$17.83
Escalations	DND	4%	DND	3%	3%
Expense Structure	NNN	MG	NNN	NNN	NNN
Op Ex/SF (CAM)	----	($5.00)	---- *($2.75/SF)*	----	----
Free Rent Adj./SF	$0.00	($1.12)	$0.00	----	----
TI Adj./SF	$0.00	$0.00	$0.00	----	----
Effective Rent/SF	**$13.00 - $23.00**	**$10.68**	**$10.92**	**$16.15**	**$17.83**
Confirmation Source	Chris Dechert Listing Broker 360-737-1900	Terry Phillips Leasing Broker 360-798-1020	Deborah Ewing Listing Broker 360-597-0566	Ownership appraisal Assessor Records Site Inspection	Ownership appraisal Assessor Records Site Inspection



Pad Site Lease Comparables

Comparable	1	2	3	4	5
APN	158385000	986065218	R2213628	R102012	00812026
Location	12300 NE Fourth Plain Vancouver, WA	11608 NE 76th Street Vancouver, WA	5222 NE Brookwood Pkw Hillsboro, OR	3120 NE MLK Blvd Portland, OR	29760 SW B. Ferry Rd Wilsonville, OR
Lessor	GTT, LLC	RMV Property Hdl	Majestic Hillsboro	Cottages among flowers	BF Angel, LLC
Tenant	Caliber Collision/Grease	Red Leaf Organic Coffee	Burger King	Popeyes	Shell Oil
Land Area (SF)	17,052	26,572	35,000	12,500	30,056
Site Area (AC)	0.39	0.61	0.80	0.29	0.69
ADT	None	44,453	38,384	23,439	134,497
Start Date	2023	2025	7/14/1905	2014	2024
Term	MTM	Owner/user	20 Year	20 Year	DND
Lease Rate	$32,910.36	$55,000.00	$90,000.00	$92,748.00	$110,000.00
Expense Structure	NNN	NNN	NNN	NNN	NNN
Confirmation Source	Gerald Geisler Landlord 253-970-3512	Nick Diamond Listing Broker 503-326-9000	Alex MaClean Leasing Broker 503-274-0211	Avery Fleischmann Landlord avery.fleischmann@gmail.com>	Jeff Olson Leasing Broker 503-274-0211

Potential Gross Income

The following Annual Property Operating Data exhibit provides a summary of the previously determined rental rate for the subject and the potential gross income (PGI):

APOD Summary			
Pad Rent	0.65 AC		$60,000
Market Rent on NNN Basis / Building No. 1		$19.91	$49,782
Market Rent on NNN Basis / Building No. 2		$16.15	$31,912
Market Rent on NNN Basis / Building No. 3		$15.00	$45,000
Market Rent on NNN Basis / Building No. 4		$17.83	$48,070
Market Rent on NNN Basis / Building No. 5		$15.00	$67,500
Market Rent on NNN Basis / Building No. 6		$15.00	$45,000
Annual Rent			**$347,264**
Vacancy/Collection Loss (2.50%)			($8,682)
Effective Gross Income (EGI)			**$338,582**
Less Non-Recoverable Expenses:			
Management (4.0%)			($13,543)
Structural/Systemic Reserves (2.0%)			($6,772)
Total Costs of Operation			**($20,315.00)**
Estimated Net Operating Income			**$318,267**
Capitalized at	6.50%		$4,896,415
Fair Market Value (Rounded)			**$4,896,400**

The vacancy and collection loss, management fees, reserves and capitalization rate determinations in the previous chart have been determined through the following market research and analysis.

Vacancy/Collection Losses & Reserves

As reported in CoStar Properties data, the Vancouver office market vacancy rate is 2.5 percent (see previous market overview). The subject is reportedly (based upon information available to the appraiser) fully occupied. Furthermore, the majority of market participants utilized a vacancy allowance of 5 percent in transaction analysis decisions. Thus, the appraiser is influenced to estimate a vacancy rate allowance consistent with current market levels, (but below investor standards), or **2.5 percent**.

Non-Recoverable Expenses

For the subject property type, the majority of expenses are passed through to the tenants. However, property management and structural reserves (exterior maintenance) are typically the responsibility of the landlord. Thus, the appraiser has researched annual expense allowances for these items.

As to management fees, an interview with April with Columbia Commercial (360-735-8001) revealed that there was typically a 3-5% rent charge to manage. The appraiser has determined a management fee of **4 percent** annually (applied to annual rent) based upon a quote from Deering Management Group (360-260-9993) and Columbia Commercial (360-735-8001).

As to structural reserves, a reasonable allowance for a building of the subject age and condition is **2 percent** annually. This selection recognizes that the buildings represent mid-life construction but nonetheless maintained condition. Prudent investors allocate a structural reserve allowance on an annual basis to account for maintenance and upkeep.

Capitalization Rate Selection

The sale comparables exhibited capitalization rates of 6.08 and 6.98 percent with an average of 6.56 percent. Furthermore, this is consistent with the market overview reported average of 6.50 percent.

Given the subject age, condition, and tenant profile, a capitalization rate at the market midpoint, or **6.5 percent**, is reasonable and supported.

As depicted in the Annual Property Operating Data tabulation on the previous page, the fair market value of subject by Income Approach is estimated at **$4,896,400** (rounded).

Cost Approach

As previously discussed, the Cost Approach is not relevant to the subject valuation problem.

Reconciliation of Fair Market Value in the Before Situation

The previously conducted approaches to value resulted in the following fair market value indications for the subject property in the before situation:

- **Sales Comparison Approach: $5,036,500**
- **Income Approach: $4,896,400**

The appraiser finds both approaches reasonable and supportable and thus has placed equate weight on the indications. Thus, a fair market value estimate at the midpoint of the range indicated by the two approaches, or **$4,967,500**, is reasonable and supported.

As shown in the following tabulation, an allocation of value between land and improvements has been calculated:

Entire Property Value	**$ 4,967,500.00**
Land Value	$ 3,934,825.00
Improvement Value	$ 1,032,675.00

- *Where the value of the various components of the property are shown separately, the value of each is segregated only as an aid to better estimating the value of the part taken as part of the whole.*

10. **Remainder Evaluation**:

(1) **Assumptions and Limiting Conditions**: None

(2) **Neighborhood Factors**: Unchanged

(3) **Description of Subject Remainder**: The proposed acquisitions are summarized below:

Description of Parcel 1 & 2:

Acquisition Type:	Fee Acquisition (including Building No. 1 improvements)
Size of Acquisition:	1,323 SF (P. 1) and 10,682 SF (P. 2), totaling 12,005 SF.
Purpose of Acquisition:	To support roadway (right-of-way) improvements and redevelopment of the Vancouver Heights project.
Acquisition Dimensions:	Variable in width from (exact survey not provided).
Improvements to be Constructed:	The acquisition area will support roadway improvements.
Existing Easement Overlap:	None based upon information available to the appraiser.

The following tabulation provides a summary of the before and after situation property areas relative to the proposed acquisition(s).

	SF	AC
Area of Entire Property:	157,393	3.61
Acquisition Type: Fee	(1,323)	(0.03)
Acquisition Type: Fee	(10,682)	(0.25)
Area of Remainder Property:	145,388	3.34

Additionally, there is a temporary construction easement (Parcel 3) that is needed to the west of the Parcel 1 and 2 acquisition areas for building demolition.

Description of Parcel 3:

Acquisition Type:	Temporary Construction Easement Acquisition
Size of Acquisition:	4,350 SF.
Term:	1 Year
Purpose of Acquisition:	To support demolition of subject Building No. 1.
Acquisition Dimensions:	+/-15-foot width per client.
Improvements to be Constructed:	None- temporary easement.
Existing Easement Overlap:	None based upon information available to the appraiser.

Following the acquisitions identified above, the subject site characteristics will continue to be competitive in the marketplace (recognizing that there is a decrease in fair market value).

Additionally, the functionality and highest and best use of the larger parcel remains unchanged in the before and after situations (continued use as a stabilized multi-tenant retail property).

(4) **Highest and Best Use Analysis**: In the after-situation, the highest and best use of the subject site will remain unchanged from the before situation.

There is no reasonable basis to conclude that the removal of Building No. 1 (discussed below) results in the remainder of the site requiring immediate redevelopment. The after situation value analysis continues to indicate that the highest and best use is that of retaining the existing improvements.

(5) **Valuation - After**: The after-situation valuation will utilize the same valuation methodology inasmuch as the highest and best use and valuation problem have remained unchanged. The primary difference between the before and after situation will be that Building 1 and 12,005 square feet of land will be removed (see following tabulation).

Building No.	Tenants	Address	PIN	Site AC	Year Built	Remodel	CoStar Size (SF)	Assessor Size (SF)	Appraisal SF
~~1~~	~~River Maiden~~	~~5301 E Mill Plain Blvd~~	~~37910149~~	~~0.65~~	~~1971~~	~~Yes~~	~~2,500~~	~~3,321~~	~~2,500~~
2	Muchas Gracias	5207 E Mill Plain Blvd	37910150	0.46	Unknown	Yes	1,896	1,976	1,976
3	Riverview Bank	915 MacArthur Blvd	37910109	2.17	1972	Yes	3,000	2,908	3,000
4	The Diner	5303 E Mill Plain Blvd	37910151	0.42	1971	2019	2,696	2,560	2,696
5	Strip Retail 1	815 MacArthur Blvd	37910109	----	1972	Yes	4,400	4,500	4,500
6	Strip Retail 2	809 MacArthur Blvd	37910109	----		Yes	3,000	2,908	3,000
Total				**3.34**			**14,992**	**14,852**	**15,172**

Relative to the subject land valuation, the Sales Comparison Approach represents the appropriate valuation methodology and the sale comparables used in the before situation value estimate are applicable to the after-situation valuation. Given that the subject property type is solely valued on a price-per-square-foot basis and that there is no project impact as to functionality or highest and best use relative to the before and after situations, the appraiser has estimated a unit value of **$25.00/SF** for the subject property after situation fair market value estimate. The following tabulation provides a summary of the difference in value between the before and after situations relative to the partial acquisition(s).

	SF	AC	Unit Price	Value
Before Situation Area of Entire Property:	157,393	3.61	$25.00	$3,934,825
After Situation Area of Remainder Property:	145,388	3.34	$25.00	$3,634,700
Value Difference / Acquisition Type: ROW	(12,005)	----		**$300,125**

Relative to the subject whole property valuation, the Sales Comparison Approach and Income Approach continue to remain relevant with the difference being the reduction of building area attributed to the removal of Building No. 1.

In the after-situation Sales Comparison Approach valuation analysis, the appraiser continues to be influenced to a unit value of $285.00/SF recognizing the subject property characteristics and (increased) land-to-building ratio. This results in a fair market value estimate of **$4,325,000** in the after situation. It should be noted that the increasing land-to-building ratio places pressure on redeveloping the subject given that the contributory value of the site improvements decreases as available land area for development increases.

In the after-situation Income Approach, the appraiser has reconstructed the Annual Property Operating Data chart resulting in a fair market value estimate of **$4,194,500**.

APOD Summary - After Situation			
Pad Rent		0.65 AC	$60,000
~~Market Rent on NNN Basis / Building No. 1~~			
Market Rent on NNN Basis / Building No. 2		$16.15	$31,912
Market Rent on NNN Basis / Building No. 3		$15.00	$45,000
Market Rent on NNN Basis / Building No. 4		$17.83	$48,070
Market Rent on NNN Basis / Building No. 5		$15.00	$67,500
Market Rent on NNN Basis / Building No. 6		$15.00	$45,000
Annual Rent			**$297,482**
Vacancy/Collection Loss (2.50%)			($7,437)
Effective Gross Income (EGI)			**$290,045**
Less Non-Recoverable Expenses:			
Management (4.0%)			($11,602)
Structural/Systemic Reserves (2.0%)			($5,801)
Total Costs of Operation			**($17,403.00)**
Estimated Net Operating Income			**$272,642**
Capitalized at	6.50%		$4,194,492
Fair Market Value (Rounded)			**$4,194,500**

Based upon the two approaches to value, the appraiser is influenced to reconcile a fair market value estimate in the after situation at the midpoint of the narrow indication range, or **$4,260,000**.

Entire Property Value	**$ 4,260,000.00**
Land Value	$ 3,635,000.00
Improvement Value	$ 625,000.00

Adjustment to the After Situation Value for the Temporary Easement:
The standard of care regarding a fair market value estimate of the temporary easement is to select a reasonable rental/lease rate for the subject site area and applying it to the term length of the easement. When estimating a reasonable lease rate for the subject property type, the appraisers analyzed long-term ground lease rates. Market research of ground lease comparables revealed an average rate of return of +/-8 percent for exclusive occupancy rights by the tenants. These represent exclusive occupancy examples in which the landlord grants property use rights to the tenants with no shared use rights during the lease term.

Rate of Return Selection: Given that the temporary easement will be utilized for the purpose of constructing project improvements, the appraiser has utilized a rate of return near the midpoint of the market range, or 8.5 percent (which includes a surcharge of 50 basis points for property taxes and insurance), for this temporary construction easement.

The following tabulation provides a summary of the temporary construction easement fair market value calculations as of the valuation date based upon the existing ownership rights, previously concluded land value, rental/lease rate, and term length of the temporary easement:

Fair Market Value of Proposed Acquisition

Acquisition	PTR Exception	Area (SF)	Fee Value/SF	Rate of Return	Term (Yr.)	FMV
Parcel 3	None	4,350	$25.00	8.50%	1	**$9,244**

- It should be noted that this temporary easement will not prevent continued use or redevelopment of the remainder.

This results in a fair market value estimate of **$4,250,756** in the after situation (as summarized below).

Entire Property Value	**$ 4,250,756.00**
Land Value (Adjusted for Parcel 3)	$ 3,625,756.00
Improvement Value	$ 625,000.00

- *Where the value of the various components of the property are shown separately, the value of each is segregated only as an aid to better estimating the value of the part taken as part of the whole.*

It should be noted that the contributory value of the improvements within the proposed acquisition areas are included in the difference between the before situation and after situation improvement value components. Thus, the improvements taken (building, concrete, asphalt, parking lot improvements, landscaping, irrigation, etc.) are captured by the before and after situation analysis.

The following tabulation provides a summary of the difference in value between the before and after situations:

Entire Property Value - Before Situation	$	4,967,500.00
Entire Property Value - After Situation	$	4,250,756.00
Difference	**$**	**716,744.00**

As previously discussed, the land taken totals $309,369. Thus, the remaining difference in fair market value can be attributed to the site improvements taken, or $407,375. Together, the land and improvements taken equates to $716,800 (rounded). As discussed in Section 11, there are no damages to the remainder.

Recapitulation:

FMV of Land Acquired	$309,369
Site Improvements in Take:	$407,375
Damages	$0
Special Benefits	$0
Fair Market Value	$716,744
Rounded	**$716,800**

It should be noted that due to whole property value rounding between the before and after situation, the allocations of value to land and improvements differ slightly. Nonetheless, the difference in value between the before and after situation is accurately captured as shown in the tabulation below:

11. **Explanation, Measurement, Supporting Data and Allocation of Damages, Cost to Cure and Special Benefits**: As previously discussed, the proposed acquisitions will not result in any damages to the remainder improvements. Existing access approaches will be reconstructed to Blandford Drive on an interim basis and ultimately connected to the new north/south collector roadway proposed as part of The Heights District based upon information available to the appraiser. Furthermore, access to the subject remainder will remain open at all times during construction.

    As previously determined, the highest and best use as improved for the subject property is continued use of the improvements (on either an interim use basis or long-term period). The acquisitions do not impact the subject remainder buildings' parking capacities in a negative manner. Furthermore, the proposed acquisitions do not result in any proximity concerns (to the remainder buildings) from the perspective or market participants. Therefore, there is no support for damages to the remaining improvements.

    Additionally, there is no supportable basis for damages to the remaining land considering that the subject highest and best use and functionality remain unchanged. The temporary easement will not result in any damages or changes in use to the subject remainder. The site shape/layout will be at least as functional to the before situation considering the property boundary angles of the before situation. The subject will be able to support similar building envelopes between the before and after situation. Thus, it is apparent that the subject's remainder site shape does not result in loss of usable site area.

    Finally, there are no special benefits specifically attributable to the subject as a result of the proposed improvement project.

12. **Summary of Appraisal Conclusions**:

(Accounting tabulation - NOT indicative of appraisal method employed)

Land Acquisitions:

Parcel	**Acquisition**	**Area (SF)**	**Compensation**
1	Fee	1,323	$33,075
2	Fee	10,682	$267,050
3	TCE	4,350	$9,244
Total:			**$309,369**

Site Improvements in Take	$407,375
Value of Take (Land & Improvements)	**$716,744**
Damages to Remainder:	
Incurable:	----
Curable:	----
Total Damages:	**$0**
Special Benefits:	----
Net Damages:	----
Fair Market Value:	$716,744
Rounded:	**$716,800**

13. **Report of Contact with Owner**:

Person(s) Contacted:	Craig E. Angelo, landowner
Address:	Not Provided
Date of Contact:	May 12, 2025
Ownership Response:	Craig E. Angelo requested co-inspection
Date of Joint Inspection:	May 27, 2025
Phone:	Not Provided
Email:	craig@alangelo.com
Inspection Participants:	David E. Balfour, MAI / 2 staff employees of Mr. Angelo (names not provided)

14. **Personal Realty Report:** N/A

Addenda

EXHIBIT A: ALTA Commitment for Title Insurance Report

EXHIBIT B: Assessor Summary

EXHIBIT C: Zoning Excerpt

EXHIBIT D: Subject Property Map Exhibits

EXHIBIT E: Pending Heights District Redevelopment Project Acquisitions

EXHIBIT F: Proposed Heights District Redevelopment Project Acquisitions

EXHIBIT G: Ground Lease Data Summary (TCE Valuation)

EXHIBIT H: River Maiden Lease Agreement

EXHIBIT I: Appraiser Qualifications

EXHIBIT J: Limiting Conditions and Assumptions

EXHIBIT A

ALTA Commitment for Title Insurance Report

ALTA COMMITMENT FOR TITLE INSURANCE

issued by agent:

CHICAGO TITLE
COMPANY OF WASHINGTON

Commitment Number:

622-168311

NOTICE

IMPORTANT - READ CAREFULLY: THIS COMMITMENT IS AN OFFER TO ISSUE ONE OR MORE TITLE INSURANCE POLICIES. ALL CLAIMS OR REMEDIES SOUGHT AGAINST THE COMPANY INVOLVING THE CONTENT OF THIS COMMITMENT OR THE POLICY MUST BE BASED SOLELY IN CONTRACT.

THIS COMMITMENT IS NOT AN ABSTRACT OF TITLE, REPORT OF THE CONDITION OF TITLE, LEGAL OPINION, OPINION OF TITLE, OR OTHER REPRESENTATION OF THE STATUS OF TITLE. THE PROCEDURES USED BY THE COMPANY TO DETERMINE INSURABILITY OF THE TITLE, INCLUDING ANY SEARCH AND EXAMINATION, ARE PROPRIETARY TO THE COMPANY, WERE PERFORMED SOLELY FOR THE BENEFIT OF THE COMPANY, AND CREATE NO EXTRACONTRACTUAL LIABILITY TO ANY PERSON, INCLUDING A PROPOSED INSURED.

THE COMPANY'S OBLIGATION UNDER THIS COMMITMENT IS TO ISSUE A POLICY TO A PROPOSED INSURED IDENTIFIED IN SCHEDULE A IN ACCORDANCE WITH THE TERMS AND PROVISIONS OF THIS COMMITMENT. THE COMPANY HAS NO LIABILITY OR OBLIGATION INVOLVING THE CONTENT OF THIS COMMITMENT TO ANY OTHER PERSON.

COMMITMENT TO ISSUE POLICY

Subject to the Notice; Schedule B, Part I-Requirements; Schedule B, Part II-Exceptions; and the Commitment Conditions, Chicago Title Insurance Company, a Florida corporation (the "Company"), commits to issue the Policy according to the terms and provisions of this Commitment. This Commitment is effective as of the Commitment Date shown in Schedule A for each Policy described in Schedule A, only when the Company has entered in Schedule A both the specified dollar amount as the Proposed Amount of Insurance and the name of the Proposed Insured.

If all of the Schedule B, Part I-Requirements have not been met within one hundred eighty (180) days after the Commitment Date, this Commitment terminates and the Company's liability and obligation end.

Chicago Title Insurance Company

By:

Michael J. Nolan, President

Countersigned By:

Phil Archer
Authorized Officer or Agent

Attest:

Marjorie Nemzura, Secretary

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Transaction Identification Data, for which the Company assumes no liability as set forth in Commitment Condition 5.e.:

ISSUING OFFICE:	FOR SETTLEMENT INQUIRIES, CONTACT:
Title Officer: James R. Copeland Chicago Title Company of Washington 655 W. Columbia Way, Suite 200 Vancouver, WA 98660 Phone: 360-601-4370 Fax: 877-334-2993 Main Phone: (360)696-0551 Email: James.Copeland@ctt.com	Escrow Officer: Smari Laney Commonstreet Consulting, LLC PO Box 18619 Irvine, CA 92623 Phone: (503)383-2312 Email: samri@csrow.com

Order Number: 622-168311

SCHEDULE A

1. Commitment Date: February 5, 2024 at 08:00 AM
2. Policy to be issued:
   (a) ALTA Owner's Policy 2021 w-WA Mod

Proposed Insured:	Purchaser with contractual rights under a purchase agreement with the vested owner identified at Item 4 below.	
Proposed Amount of Insurance:	$50,000.00	
The estate or interest to be insured:	Fee Simple	
Premium:	$	425.00
Tax:	$	36.98
Rate:	General Schedule Standard Coverage	
Total:	$	461.98

3. The estate or interest in the Land at the Commitment Date is:

   Fee Simple

4. The Title is, at the Commitment Date, vested in:

   Tower Mall Properties, LLC, a Washington limited liability company

5. The Land is described as follows:

   SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

END OF SCHEDULE A

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EXHIBIT "A"

Legal Description

For APN/Parcel ID(s): 037910109, 037910149, 037910150 and 037910151

That portion of Section 30, Township 2 North, Range 2 East of the Willamette Meridian, lying within the John Nye Donation Land Claim, in Clark County, Washington, described as follows:

Beginning at a point which is South 551.890 feet and East 1714.110 feet of the West one quarter corner of Section 30, Township 2 North, Range 2 East of the Willamette Meridian, Clark County, Washington, said point being on the West line of Devine Road, and at the Northeast corner of the T.B. Bruno property, as conveyed by deed recorded in Volume D-34, page 174, under Auditor's File No. G213157, records of Clark County, Washington; thence North 0°04'02" West 27.81 feet to a point on the West line of Devine Road and the Southeast corner of the Harry K. Policar tract, as conveyed by deed recorded in Volume D-34, page 396, under Auditor's File No. G213675, records of said County; thence South 89°55'58" West, a distance of 99.10 feet; thence North 0°04'02" West, a distance of 150.00 feet; thence North 89°55'58" East, a distance of 99.10 feet to a point on the West line of Devine Road; thence along the West line of Devine Road North 00°04'02" West, a distance of 555.69 feet to a point at the beginning of a curve having a radius of 20.15 feet, a central angle of 89°30'10" and bearing to the Northwest thence along the arc of said curve a distance of 31.47 feet to a point on compound curve having a radius of 1880.00 feet, a central angle of 0°50'20" and bearing Westerly; thence along the arc of said curve, a distance of 27.53 feet to a point on the South line of Mill Plain Boulevard; thence South 89°35'28" West, a distance of 1073.80 feet along the South line of Mill Plain Boulevard to a point; thence South 89°06'28" West, 60.70 feet along the South line of Mill Plain Boulevard to the beginning of a curve having a radius of 25.00 feet, a central angle of 123°48'30" and bearing to the Southeast; thence along the arc of said curve, a distance of 54.02 feet to a point on the North line of MacArthur Boulevard; thence South 34°42'02" East, 967.30 feet along the North line of MacArthur Boulevard to the Westerly corner of said T.B. Bruno tract; thence along the Northerly line thereof, North 55°17'58" East, a distance of 157.14 feet; thence North 89°59'58" East, a distance of 523.14 feet to the point of beginning.

EXCEPT that portion lying Easterly of a line drawn parallel to and 10 feet Easterly of the following described line:

Beginning at a point on the North line of MacArthur Boulevard, said point being North 34°29'58" East 53.49 feet from a concrete monument set at the intersection of the center lines of MacArthur Boulevard and Blandford Drive, thence North 34°29'58" East 15.86 feet; thence North 36°48'28" East 61.53 feet; thence North 19°02'58" East 276.83 feet; thence North 21°07'28" East 184.00 feet; thence North 28°04'28" East 13.61 feet; to a point on the South line of Mill Plain Boulevard.

ALSO that portion of MacArthur Boulevard vacated by the City of Vancouver Ordinance No. M-830.

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SCHEDULE B, PART I - Requirements

All of the following Requirements must be met:

1. The Proposed Insured must notify the Company in writing of the name of any party not referred to in this Commitment who will obtain an interest in the Land or who will make a loan on the Land. The Company may then make additional Requirements or Exceptions.

2. Pay the agreed amount for the estate or interest to be insured.

3. Pay the premiums, fees, and charges for the Policy to the Company.

4. Documents satisfactory to the Company that convey the Title or create the Mortgage to be insured, or both, must be properly authorized, executed, delivered, and recorded in the Public Records.

5. Additional requirements and/or exceptions may be added as details of the transaction are disclosed to, or become known by the Company.

6. The application for title insurance was placed by reference to only a street address or tax identification number. The proposed Insured must confirm that the legal description in this report covers the parcel(s) of Land requested to be insured. If the legal description is incorrect, the proposed Insured must notify the Company and/or the settlement company in order to prevent errors and to be certain that the legal description for the intended parcel(s) of Land will appear on any documents to be recorded in connection with this transaction and on the policy of title insurance.

7. For each policy to be issued as identified in Schedule A, Item 2; the Company shall not be liable under this commitment until it receives a designation for a Proposed Insured, acceptable to the Company. As provided in Commitment Condition 4, the Company may amend this commitment to add, among other things, additional exceptions or requirements after the designation of the Proposed Insured.

8. If documents for this transaction are to be signed using Remote Online Notary, we require the use of company approved RON providers which can be found here:
<https://nationalagency.fnf.com/digitalclosinghub/RON-Technology-Providers>.

   The Notarial Certificate must state "This notarial act involved the use of communication technology."

   We require a copy of the notarization video for our file documentation prior to closing. Additional underwriting requirements may need to be satisfied.

9. Please be advised that our search did not disclose any open Deeds of Trust of record. If you should have knowledge of any outstanding obligation, please contact the Title Department immediately for further review prior to closing.

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SCHEDULE B, PART I - Requirements
(continued)

10. The Company will require the following documents for review prior to the issuance of any title insurance predicated upon a conveyance or encumbrance from the entity named below.

    Limited Liability Company: Tower Mall Properties, LLC

    a. A copy of its operating agreement, if any, and any and all amendments, supplements and/or modifications thereto, certified by the appropriate manager or member.

    b. If a domestic Limited Liability Company, a copy of its Articles of Organization and all amendment thereto with the appropriate filing stamps.

    c. If the Limited Liability Company is member-managed a full and complete current list of members certified by the appropriate manager or member.

    d. A current dated certificate of good standing from the proper governmental authority of the state in which the entity was created

    e. If less than all members, or managers, as appropriate, will be executing the closing documents, furnish evidence of the authority of those signing.

    The Company reserves the right to add additional items or make further requirements after review of the requested documentation.

11. It is our understanding that the parties to the transaction intend to change or modify the legal description of the Land prior to or at closing. The appropriate documentation to alter the legal description of the Land must be furnished to the Company for review prior to recording. No insurance of the new legal description will be provided until the alteration [or change or modification or any combination of the three] has been approved by the appropriate municipal entity and/or County and the appropriate documentation has been recorded.

    The Company reserves the right to add additional items or make further requirements after review of the requested documentation.

END OF REQUIREMENTS

NOTES

The following matters will not be listed as Special Exceptions in Schedule B of the policy. There will be no coverage for loss arising by reason of the matters listed below because these matters are either excepted or excluded from coverage or are not matters covered under the insuring provisions of the policy.

Note A: Notice: Please be aware that due to the conflict between federal and state laws concerning the cultivation, distribution, manufacture or sale of marijuana, the Company is not able to close or insure any transaction involving Land that is associated with these activities.

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SCHEDULE B, PART I - Requirements
(continued)

Note B: Note: The Public Records indicate that the address of the improvement located on said Land is as follows:

809 MacArthur Boulevard
Vancouver, WA 98661
Affects: Tax Account 037910109

5301 E Mill Plain Blvd
Vancouver, WA 98661
Affects: Tax Account 037910149

5207 E Mill Plain Blvd
Vancouver, WA 98661
Affects: Tax Account 037910150

5303 E Mill Plain Blvd
Vancouver, WA 98661
Affects: Tax Account 037910151

Note C: Note: There are NO conveyances affecting said Land recorded within 24 months of the date of this report.

Note D: Note: FOR INFORMATIONAL PURPOSES ONLY:

The following may be used as an abbreviated legal description on the documents to be recorded, per Amended RCW 65.04.045. Said abbreviated legal description is not a substitute for a complete legal description within the body of the document:

Tax Lots #51, #185, #186, and #187, John W Nye DLC, Section 30, Township 2 North, Range 2 East Tax Account No.: 037910109, 037910149, 037910150 and 037910151

Note E: Note: This map/plat is being furnished as an aid in locating the herein described Land in relation to adjoining streets, natural boundaries and other land. Except to the extent a policy of title insurance is expressly modified by endorsement, if any, the Company does not insure dimensions, distances or acreage shown thereon.

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SCHEDULE B, PART I - Requirements
(continued)

Note F: The recording fee (per document) is currently:
Deed $303.50 plus $1.00 for each additional page
Deed of Trust $304.50 plus $1.00 for each additional page

Note: When possible, the company will record electronically. An additional fee of $4.25 plus sales tax applies to each document recorded electronically.

Note: A multiple transaction document incurs an additional fee for each additional title.

Note: A document which fails to conform to certain formatting and page one requirements incurs an additional $50.00 fee.

RECORDING FEES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Please send all recording packages to:
Recording Department
655 W. Columbia Way, Suite 200
Vancouver, WA 98660

Please email all releases to:
ClarkWArecordings@fnf.com

END OF NOTES

END OF SCHEDULE B, PART I

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SCHEDULE B, PART II - Exceptions

Some historical land records contain Discriminatory Covenants that are illegal and unenforceable by law. This Commitment and the Policy treat any Discriminatory Covenant in a document referenced in Schedule B as if each Discriminatory Covenant is redacted, repudiated, removed, and not republished or recirculated. Only the remaining provisions of the document will be excepted from coverage.

The Policy will not insure against loss or damage resulting from the terms and conditions of any lease or easement identified in Schedule A, and will include the following Exceptions unless cleared to the satisfaction of the Company:

GENERAL EXCEPTIONS

A. Rights or claims of parties in possession, or claiming possession, not shown by the Public Records.

B. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land.

C. Easements, prescriptive rights, rights-of-way, liens or encumbrances, or claims thereof, not shown by the Public Records.

D. Any lien, or right to a lien, for contributions to employee benefit funds, or for state workers' compensation, or for services, labor, or material heretofore or hereafter furnished, all as imposed by law, and not shown by the Public Records.

E. Taxes or special assessments which are not yet payable or which are not shown as existing liens by the Public Records.

F. Any lien for service, installation, connection, maintenance, tap, capacity, or construction or similar charges for sewer, water, electricity, natural gas or other utilities, or for garbage collection and disposal not shown by the Public Records.

G. Unpatented mining claims, and all rights relating thereto.

H. Reservations and exceptions in United States Patents or in Acts authorizing the issuance thereof.

I. Indian tribal codes or regulations, Indian treaty or aboriginal rights, including easements or equitable servitudes.

J. Water rights, claims or title to water.

K. Any defect, lien, encumbrance, adverse claim, or other matter that appears for the first time in the Public Records or is created, attaches, or is disclosed between the Commitment Date and the date on which all of the Schedule B, Part I—Requirements are met.

SPECIAL EXCEPTIONS

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SCHEDULE B, PART II - Exceptions
(continued)

1. Payment of the real estate excise tax, if required.

The Land is situated within the boundaries of local taxing authority of Clark County.

The rate of real estate excise tax for properties which are not formally classified and specially valued as timberland or agricultural land is:

State portion: 1.10% on any portion of the sales price of $500,000 or less;
1.28% on any portion of the sales price above $500,000, up to $1,500,000;
2.75% on any portion of the sales price above $1,500,000, up to $3,000,000;
3.00% on any portion of the sales price above $3,000,000;

Note: Effective January 1, 2023 the selling price thresholds for the state portion will change.

The rate of excise for properties formally classified as timberland or agriculture land will be 1.28% for the State portion on the entire sales price.

Local portion: .50% on the entire sales price.

An additional $5.00 State Technology Fee must be included in all excise tax payments.

If the transaction is exempt, an additional $5.00 Affidavit Processing Fee is required.

Any conveyance document must be accompanied by the official Washington State Excise Tax Affidavit, which can be found online HERE <https://dor.wa.gov/get-form-or-publication/forms-subject/real-estate-excise-tax>. The applicable excise tax must be paid and the affidavit approved at the time of the recording of the conveyance documents. (NOTE: Real Estate Excise Tax Affidavits must be printed as legal size forms).

2. General and special taxes and charges, payable February 15, delinquent if first half unpaid on May 1, second half delinquent if unpaid on November 1 of the tax year:

Year:	2024
Tax Account No.:	037910109
School District/Levy Code:	037000
Assessed Total:	$2,353,650.00
Millage Rate:	9.3294957296
Location Code:	0605

General and Special Taxes:

First Half Billed:	$10,984.95
Second Half Billed:	$10,984.85
Unpaid:	$21,969.80
Affects:	portion of said premises

Prior to close of escrow, please contact the Tax Collector's Office to confirm all amounts owing, including current fiscal year taxes, supplemental taxes, escaped assessments and any delinquencies.

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SCHEDULE B, PART II - Exceptions
(continued)

3. General and special taxes and charges, payable February 15, delinquent if first half unpaid on May 1, second half delinquent if unpaid on November 1 of the tax year:

Year:	2024
Tax Account No.:	037910149
School District/Levy Code:	037000
Assessed Total:	$511,750.00
Millage Rate:	9.3294957296
Location Code:	0605

General and Special Taxes:

First Half Billed:	$2,392.95
Second Half Billed:	$2,392.86
Unpaid:	$4,785.81
Affects:	portion of said premises

Prior to close of escrow, please contact the Tax Collector's Office to confirm all amounts owing, including current fiscal year taxes, supplemental taxes, escaped assessments and any delinquencies.

4. General and special taxes and charges, payable February 15, delinquent if first half unpaid on May 1, second half delinquent if unpaid on November 1 of the tax year:

Year:	2024
Tax Account No.:	037910150
School District/Levy Code:	037000
Assessed Total:	$330,400.00
Millage Rate:	9.3294957296
Location Code:	0605

General and Special Taxes:

First Half Billed:	$1,547.00
Second Half Billed:	$1,546.89
Unpaid:	$3,093.89
Affects:	portion of said premises

Prior to close of escrow, please contact the Tax Collector's Office to confirm all amounts owing, including current fiscal year taxes, supplemental taxes, escaped assessments and any delinquencies.

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SCHEDULE B, PART II - Exceptions
(continued)

5. General and special taxes and charges, payable February 15, delinquent if first half unpaid on May 1, second half delinquent if unpaid on November 1 of the tax year:

Year:	2024
Tax Account No.:	037910151
School District/Levy Code:	037000
Assessed Total:	$292,650.00
Millage Rate:	9.3294957296
Location Code:	0605

General and Special Taxes:

First Half Billed:	$1,370.92
Second Half Billed:	$1,370.81
Unpaid:	$2,741.73
Affects:	portion of said premises

Prior to close of escrow, please contact the Tax Collector's Office to confirm all amounts owing, including current fiscal year taxes, supplemental taxes, escaped assessments and any delinquencies.

6. A lease with certain terms, covenants, conditions and provisions set forth therein.

Dated:	July 7, 1966
Lessor:	Ned Hall and Maxine M. Hall, husband and wife
Lessee:	Standard Oil Company of California
Recording Date:	October 5, 1966
Recording No.:	G465498

Amended by instrument(s):

Recording Date:	May 10, 1967
Recording No:	G486993

Amended by instrument(s):

Recording Date:	June 11, 1982
Recording No:	8206110002

Amended by instrument(s):

Recording Date:	December 16, 1988
Recording No:	8812160065

Amended by instrument(s):

Recording Date:	March 2, 1999
Recording No:	3074478

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SCHEDULE B, PART II - Exceptions
(continued)

Amended by instrument(s):
Recording Date: March 2, 1999
Recording No: 3074479

7. Easement(s) for the purpose(s) shown below and rights incidental thereto as set forth in a document:

In favor of: PUBLIC UTILITY DISTRICT NO. 1 OF CLARK COUNTY, WASHINGTON
Purpose: Transmission of electric energy, including communication facilities
Recording Date: June 16, 1948
Recording No.: G4023, Volume 446, Page 309

Amended by instrument(s):
Recording Date: March 16, 1966
Recording No: G444958

8. Easement(s) for the purpose(s) shown below and rights incidental thereto as set forth in a document:

In favor of: City of Vancouver
Purpose: right-of-way for water and sewer
Recording Date: October 24, 1947
Recording No.: F89464, Book 428, Page 494

9. Easement(s) for the purpose(s) shown below and rights incidental thereto as set forth in a document:

In favor of: Housing Authority of the City of Vancouver
Purpose: right of way for water line
Recording Date: September 21, 1964
Recording No.: G395265

10. Easement(s) for the purpose(s) shown below and rights incidental thereto as set forth in a document:

In favor of: PUBLIC UTILITY DISTRICT NO. 1 OF CLARK COUNTY, WASHINGTON
Purpose: Transmission of electric energy, including communication facilities
Recording Date: March 29, 1971
Recording No.: G571466
Affects: portion of said premises

11. Any irregularities, reservations, easements or other matters in the proceedings occasioning the abandonment or vacation of the street/road shown below:

Name: Macarthur Blvd
By: Ordinance M-830

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SCHEDULE B, PART II - Exceptions
(continued)

12. Covenants, conditions, restrictions, recitals, reservations, easements, easement provisions, encroachments, dedications, building setback lines, notes, statements, and other matters, if any, but omitting any covenants or restrictions, if any, including but not limited to those based upon race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law, as set forth on Survey:

    Recording No: Survey Book 71, Page 104

13. Any unrecorded leaseholds, right of vendors and holders of security interests on personal property installed upon the Land and rights of tenants to remove trade fixtures at the expiration of the terms.

END OF SCHEDULE B, PART II

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COMMITMENT CONDITIONS

1. DEFINITIONS

a. "Discriminatory Covenant": Any covenant, condition, restriction, or limitation that is unenforceable under applicable law because it illegally discriminates against a class of individuals based on personal characteristics such as race, color, religion, sex, sexual orientation, gender identity, familial status, disability, national origin, or other legally protected class.

b. "Knowledge" or "Known": Actual knowledge or actual notice, but not constructive notice imparted by the Public Records.

c. "Land": The land described in Item 5 of Schedule A and improvements located on that land that by State law constitute real property. The term "Land" does not include any property beyond that described in Schedule A, nor any right, title, interest, estate, or easement in any abutting street, road, avenue, alley, lane, right-of-way, body of water, or waterway, but does not modify or limit the extent that a right of access to and from the Land is to be insured by the Policy.

d. "Mortgage": A mortgage, deed of trust, trust deed, security deed, or other real property security instrument, including one evidenced by electronic means authorized by law.

e. "Policy": Each contract of title insurance, in a form adopted by the American Land Title Association, issued or to be issued by the Company pursuant to this Commitment.

f. "Proposed Amount of Insurance": Each dollar amount specified in Schedule A as the Proposed Amount of Insurance of each Policy to be issued pursuant to this Commitment.

g. "Proposed Insured": Each person identified in Schedule A as the Proposed Insured of each Policy to be issued pursuant to this Commitment.

h. "Public Records": The recording or filing system established under State statutes in effect at the Commitment Date under which a document must be recorded or filed to impart constructive notice of matters relating to the Title to a purchaser for value without Knowledge. The term "Public Records" does not include any other recording or filing system, including any pertaining to environmental remediation or protection, planning, permitting, zoning, licensing, building, health, public safety, or national security matters.

i. "State": The state or commonwealth of the United States within whose exterior boundaries the Land is located. The term "State" also includes the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, and Guam.

j. "Title": The estate or interest in the Land identified in Item 3 of Schedule A.

2. If all of the Schedule B, Part I-Requirements have not been met within the time period specified in the Commitment to Issue Policy, this Commitment terminates and the Company's liability and obligation end.

3. The Company's liability and obligation is limited by and this Commitment is not valid without:

a. the Notice;

b. the Commitment to Issue Policy;

c. the Commitment Conditions;

d. Schedule A;

e. Schedule B, Part I-Requirements; and

f. Schedule B, Part II-Exceptions; and

g. a counter-signature by the Company or its issuing agent that may be in electronic form.

4. COMPANY'S RIGHT TO AMEND

The Company may amend this Commitment at any time. If the Company amends this Commitment to add a defect, lien, encumbrance, adverse claim, or other matter recorded in the Public Records prior to the Commitment Date, any liability of the Company is limited by Commitment Condition 5. The Company is not liable for any other amendment to this Commitment.

5. LIMITATIONS OF LIABILITY

a. The Company's liability under Commitment Condition 4 is limited to the Proposed Insured's actual expense incurred in the interval between the Company's delivery to the Proposed Insured of the Commitment and the delivery of the amended Commitment, resulting from the Proposed Insured's good faith reliance to:

i. comply with the Schedule B, Part I-Requirements;

ii. eliminate, with the Company's written consent, any Schedule B, Part II-Exceptions; or

iii. acquire the Title or create the Mortgage covered by this Commitment.

b. The Company is not liable under Commitment Condition 5.a. if the Proposed Insured requested the amendment or had Knowledge of the matter and did not notify the Company about it in writing.

c. The Company is only liable under Commitment Condition 4 if the Proposed Insured would not have incurred the expense had the Commitment included the added matter when the Commitment was first delivered to the Proposed Insured.

d. The Company's liability does not exceed the lesser of the Proposed Insured's actual expense incurred in good faith and described in Commitment Condition 5.a. or the Proposed Amount of Insurance.

e. The Company is not liable for the content of the Transaction Identification Data, if any.

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(continued)

f. The Company is not obligated to issue the Policy referred to in this Commitment unless all of the Schedule B, Part I-Requirements have been met to the satisfaction of the Company.

g. The Company's liability is further limited by the terms and provisions of the Policy to be issued to the Proposed Insured.

6. LIABILITY OF THE COMPANY MUST BE BASED ON THIS COMMITMENT; CHOICE OF LAW AND CHOICE OF FORUM

a. Only a Proposed Insured identified in Schedule A, and no other person, may make a claim under this Commitment.

b. Any claim must be based in contract under the State law of the State where the Land is located and is restricted to the terms and provisions of this Commitment. Any litigation or other proceeding brought by the Proposed Insured against the Company must be filed only in a State or federal court having jurisdiction.

c. This Commitment, as last revised, is the exclusive and entire agreement between the parties with respect to the subject matter of this Commitment and supersedes all prior commitment negotiations, representations, and proposals of any kind, whether written or oral, express or implied, relating to the subject matter of this Commitment.

d. The deletion or modification of any Schedule B, Part II-Exception does not constitute an agreement or obligation to provide coverage beyond the terms and provisions of this Commitment or the Policy.

e. Any amendment or endorsement to this Commitment must be in writing and authenticated by a person authorized by the Company.

f. When the Policy is issued, all liability and obligation under this Commitment will end and the Company's only liability will be under the Policy.

7. IF THIS COMMITMENT IS ISSUED BY AN ISSUING AGENT

The issuing agent is the Company's agent only for the limited purpose of issuing title insurance commitments and policies. The issuing agent is not the Company's agent for closing, settlement, escrow, or any other purpose.

8. PRO-FORMA POLICY

The Company may provide, at the request of a Proposed Insured, a pro-forma policy illustrating the coverage that the Company may provide. A pro-forma policy neither reflects the status of Title at the time that the pro-forma policy is delivered to a Proposed Insured, nor is it a commitment to insure.

9. CLAIMS PROCEDURES

This Commitment incorporates by reference all Conditions for making a claim in the Policy to be issued to the Proposed Insured. Commitment Condition 9 does not modify the limitations of liability in Commitment Conditions 5 and 6.

10. CLASS ACTION

ALL CLAIMS AND DISPUTES ARISING OUT OF OR RELATING TO THIS COMMITMENT, INCLUDING ANY SERVICE OR OTHER MATTER IN CONNECTION WITH ISSUING THIS COMMITMENT, ANY BREACH OF A COMMITMENT PROVISION, OR ANY OTHER CLAIM OR DISPUTE ARISING OUT OF OR RELATING TO THE TRANSACTION GIVING RISE TO THIS COMMITMENT, MUST BE BROUGHT IN AN INDIVIDUAL CAPACITY. NO PARTY MAY SERVE AS PLAINTIFF, CLASS MEMBER, OR PARTICIPANT IN ANY CLASS OR REPRESENTATIVE PROCEEDING. ANY POLICY ISSUED PURSUANT TO THIS COMMITMENT WILL CONTAIN A CLASS ACTION CONDITION.

11. ARBITRATION - INTENTIONALLY DELETED

END OF CONDITIONS

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RECORDING REQUIREMENTS

Effective January 1, 1997, document format and content requirements have been imposed by Washington Law. Failure to comply with the following requirements may result in rejection of the document by the county recorder or imposition of a $50.00 surcharge.

First page or cover sheet:

3" top margin containing nothing except the return address.

1" side and bottom margins containing no markings or seals.

Title(s) of documents.

Recording no. of any assigned, released or referenced document(s).

Grantors names (and page no. where additional names can be found)

Grantees names (and page no. where additional names can be found).

Abbreviated legal description (Lot, Block, Plat Name or Section, Township, Range and Quarter, Quarter Section for unplatted). Said abbreviated legal description is not a substitute for a complete legal description which must also appear in the body of the document.

Assessor's tax parcel number(s)

Return address (in top 3" margin).

**A cover sheet can be attached containing the above format and data if the first page does not contain all required data.

Additional Pages:

1" top, side and bottom margins containing no markings or seals.

All Pages:

No stapled or taped attachments. Each attachment must be a separate page. All notary and other pressure seals must be smudged for visibility. Font size of 8 points or larger.

EXHIBIT B

Assessor Summary

PROPERTY INFORMATION CENTER

Account Summary

Property Identification Number: 37910109 MapsOnline Fact Sheet
Property Type: Real
Property Status: Active
Site Address: 809 MACARTHUR BLVD, VANCOUVER, WA 98661 (Situs Addresses)
Abbreviated Description: #51 JOHN W NYE DLC 2.17A

Tax Status: Regular

Property Owner	Owner Mailing Address	Property Site Address
TOWER MALL PROPERTIES LLC	400 E MILL PLAIN BLVD STE 500 VANCOUVER WA , 98660 US	809 MACARTHUR BLVD, VANCOUVER, WA 98661 Google Maps Street View

Administrative Data Info...

Jurisdiction	Vancouver
Land Use Planning	
Comprehensive Plan Designation	COM
Comprehensive Plan Overlay(s)	none
Urban Growth Area	Vancouver
Zoning Designation - Codes	Heights Plan District (HX)
Zoning Overlay(s)	none
Miscellaneous	
Census Tract	428.00
Drainage District	n/a
Neighborhood	Southcliff
Park District	B
Public Safety	
Burning Allowed	No
EMS Response Area	AMR
Fire District	Vancouver
Increased Wildfire Danger Area	No
Police Jurisdiction	VPD West District 2
Schools	
School District Name	Vancouver
Elementary School Attendance Area	Marshall

Electoral Data

Board of County Councilors District	1
Camas Council Ward	n/a
CPU Commissioner District	3
Election Precinct	225
Legislative District	49
Library District	Fort Vancouver Regional Library
Port District	Vancouver Port District 3
School District Board Director District	No Director Districts
Sewer Board District	Vancouver
State Weed Board District	2

Land Data

Approximate Area Info...	94,525 sq. ft. 2.17 acres
Clark County Road Atlas	Page 9
DOR Land Use Code Info...	59
Section-Township-Range	SW 1/4,S30,T2N,R2E PDF
Section-Township-Range	NW 1/4,S30,T2N,R2E PDF
Subdivision	no data
Survey	064146 071104

Sales History

Date of Sale	02/07/2005
Document Type	D-SWD
Document Number	
Excise Number	727024

Assessment Data Info...

2024 Values for 2025 Taxes

Market Value as of January 1, 2024

Land Value	$1,278,255.00
Building Value	$1,310,745.00
Total Property	$2,589,000.00

Taxable Value Info...

Total	$2,589,000.00

2023 Values for 2024 Taxes

Market Value as of January 1, 2023

Land Value	$1,162,050.00
Building Value	$1,191,600.00
Total Property	$2,353,650.00

Taxable Value Info...

Total	$2,353,650.00

General

Assessor Neighborhood	9620
Re-valuation Cycle	1
Notice of Value	2024
	2023
	2022
	2019
	2018
	2017
	2016

Property assessment value is valid as of the date printed on the linked notice of value. The notice

Middle School Attendance Area	McLoughlin
High School Attendance Area	Fort Vancouver
Transportation	
C-TRAN Public Transportation Benefit Area	Yes
Traffic Impact Fee (TIF) District	Columbia
Transportation Analysis Zone	1595
Utilities	
CPU Lighting Utility District	n/a
Last Street Sweeping	n/a
Sewer District	Vancouver
Waste Collection Provider	n/a
Waste Collection Day	n/a
Water District	Vancouver The water service provider may be different from the indicated water district. Please contact the parcel's jurisdiction if you need to know the water service provider.

Sale Amount	$0.00
Date of Sale	02/07/2005
Document Type	D-QCD
Document Number	
Excise Number	560819
Sale Amount	$0.00
Date of Sale	12/24/2004
Document Type	DEED
Document Number	
Excise Number	557117
Sale Amount	$1,000,000.00
Date of Sale	12/18/1996
Document Type	D-QCD
Document Number	
Excise Number	420137
Sale Amount	$0.00

of value will not reflect any updates to property value that occurred after the notice mail date. Please contact the Assessor's office if you have a question about your assessed value.

If you have questions concerning the data on this page, please contact the Clark County Assessor's Office. Main Phone: (564) 397-2391, Email: assessor@clark.wa.gov

Disclaimer: Clark County does not warrant the accuracy, reliability or timeliness of any information in this system, and shall not be held liable for losses caused by using this information. Portions of this information may not be current or accurate. Any person or entity who relies on any information obtained from this system, does so at their own risk. RCW 42.56.070(8) prohibits releasing and/or using lists of individuals gathered from this site for commercial purposes. [Full Disclaimer]

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Account Summary

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Property Type: Real
Property Status: Active
Site Address: 5301 E MILL PLAIN BLVD, VANCOUVER, WA 98661 (Situs Addresses)
Abbreviated Description: #185 JOHN W NYE DLC .65A

Tax Status: Regular

Property Owner	Owner Mailing Address	Property Site Address
TOWER MALL PROPERTIES LLC	400 E MILL PLAIN BLVD STE 500 VANCOUVER WA , 98660 US	5301 E MILL PLAIN BLVD, VANCOUVER, WA 98661 Google Maps Street View

Administrative Data Info...

Jurisdiction	Vancouver
Land Use Planning	
Comprehensive Plan Designation	COM
Comprehensive Plan Overlay(s)	none
Urban Growth Area	Vancouver
Zoning Designation - Codes	Heights Plan District (HX)
Zoning Overlay(s)	none
Miscellaneous	
Census Tract	428.00
Drainage District	n/a
Neighborhood	n/a
Park District	B
Public Safety	
Burning Allowed	No
EMS Response Area	AMR
Fire District	Vancouver
Increased Wildfire Danger Area	No
Police Jurisdiction	VPD West District 2
Schools	
School District Name	Vancouver
Elementary School Attendance Area	Marshall

Electoral Data

Board of County Councilors District	1
Camas Council Ward	n/a
CPU Commissioner District	3
Election Precinct	225
Legislative District	49
Library District	Fort Vancouver Regional Library
Port District	Vancouver Port District 3
School District Board Director District	No Director Districts
Sewer Board District	Vancouver
State Weed Board District	2

Land Data

Approximate Area Info...	28,314 sq. ft. 0.65 acres
Clark County Road Atlas	Page 9
DOR Land Use Code Info...	65
Section-Township-Range	NW 1/4,S30,T2N,R2E PDF
Subdivision	no data
Survey	064146 071104

Sales History

Date of Sale	02/07/2005
Document Type	D-SWD
Document Number	
Excise Number	727024
Sale Amount	$0.00

Date of Sale	02/07/2005

Assessment Data Info...

2024 Values for 2025 Taxes

Market Value as of January 1, 2024

Land Value	$373,725.00
Building Value	$189,175.00
Total Property	$562,900.00

Taxable Value Info...

Total	$562,900.00

2023 Values for 2024 Taxes

Market Value as of January 1, 2023

Land Value	$339,750.00
Building Value	$172,000.00
Total Property	$511,750.00

Taxable Value Info...

Total	$511,750.00

General

Assessor Neighborhood	9620
Re-valuation Cycle	1
Notice of Value	2024 2023 2022 2019 2018 2017 2016

Property assessment value is valid as of the date printed on the linked notice of value. The

Middle School Attendance Area	McLoughlin
High School Attendance Area	Fort Vancouver
Transportation	
C-TRAN Public Transportation Benefit Area	Yes
Traffic Impact Fee (TIF) District	Columbia
Transportation Analysis Zone	1600
Utilities	
CPU Lighting Utility District	n/a
Last Street Sweeping	n/a
Sewer District	Vancouver
Waste Collection Provider	n/a
Waste Collection Day	n/a
Water District	Vancouver

The water service provider may be different from the indicated water district. Please contact the parcel's jurisdiction if you need to know the water service provider.

Document Type	D-QCD
Document Number	
Excise Number	560819
Sale Amount	$0.00
Date of Sale	12/24/2004
Document Type	DEED
Document Number	
Excise Number	557117
Sale Amount	$1,000,000.00
Date of Sale	12/18/1996
Document Type	D-QCD
Document Number	
Excise Number	420137
Sale Amount	$0.00

notice of value will not reflect any updates to property value that occurred after the notice mail date. Please contact the Assessor's office if you have a question about your assessed value.

If you have questions concerning the data on this page, please contact the Clark County Assessor's Office. Main Phone: (564) 397-2391, Email: assessor@clark.wa.gov

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PROPERTY INFORMATION CENTER

Account Summary

Property Identification Number: 37910150 MapsOnline Fact Sheet
Property Type: Real
Property Status: Active
Site Address: 5207 E MILL PLAIN BLVD, VANCOUVER, WA 98661 (Situs Addresses)
Abbreviated Description: #186 JOHN W NYE DLC .46A

Tax Status: Regular

Property Owner	Owner Mailing Address	Property Site Address
TOWER MALL PROPERTIES LLC	400 E MILL PLAIN BLVD STE 500 VANCOUVER WA , 98660 US	5207 E MILL PLAIN BLVD, VANCOUVER, WA 98661 Google Maps Street View

Administrative Data

Info...

Jurisdiction	Vancouver
Land Use Planning	
Comprehensive Plan Designation	COM
Comprehensive Plan Overlay(s)	none
Urban Growth Area	Vancouver
Zoning Designation - Codes	Heights Plan District (HX)
Zoning Overlay(s)	none
Miscellaneous	
Census Tract	428.00
Drainage District	n/a
Neighborhood	n/a
Park District	B
Public Safety	
Burning Allowed	No
EMS Response Area	AMR
Fire District	Vancouver
Increased Wildfire Danger Area	No
Police Jurisdiction	VPD West District 2
Schools	
School District Name	Vancouver
Elementary School Attendance Area	Marshall

Electoral Data

Board of County Councilors District	1
Camas Council Ward	n/a
CPU Commissioner District	3
Election Precinct	225
Legislative District	49
Library District	Fort Vancouver Regional Library
Port District	Vancouver Port District 3
School District Board Director District	No Director Districts
Sewer Board District	Vancouver
State Weed Board District	2

Land Data

Approximate Area Info...	20,038 sq. ft. 0.46 acres
Clark County Road Atlas	Page 9
DOR Land Use Code Info...	58
Section-Township-Range	NW 1/4,S30,T2N,R2E PDF
Subdivision	no data
Survey	064146 071104

Sales History

Date of Sale	02/07/2005
Document Type	D-SWD
Document Number	
Excise Number	727024
Sale Amount	$0.00

Date of Sale	02/07/2005

Assessment Data Info...

2024 Values for 2025 Taxes

Market Value as of January 1, 2024

Land Value	$264,495.00
Building Value	$98,905.00
Total Property	$363,400.00

Taxable Value Info...

Total	$363,400.00

2023 Values for 2024 Taxes

Market Value as of January 1, 2023

Land Value	$240,450.00
Building Value	$89,950.00
Total Property	$330,400.00

Taxable Value Info...

Total	$330,400.00

General

Assessor Neighborhood	9620
Re-valuation Cycle	1
Notice of Value	2024 2023 2022 2019 2018 2017 2016

Property assessment value is valid as of the date printed on the linked notice of value. The

Middle School Attendance Area	McLoughlin
High School Attendance Area	Fort Vancouver
Transportation	
C-TRAN Public Transportation Benefit Area	Yes
Traffic Impact Fee (TIF) District	Columbia
Transportation Analysis Zone	1600
Utilities	
CPU Lighting Utility District	n/a
Last Street Sweeping	n/a
Sewer District	Vancouver
Waste Collection Provider	n/a
Waste Collection Day	n/a
Water District	Vancouver

The water service provider may be different from the indicated water district. Please contact the parcel's jurisdiction if you need to know the water service provider.

Document Type	D-QCD
Document Number	
Excise Number	560819
Sale Amount	$0.00
Date of Sale	12/24/2004
Document Type	DEED
Document Number	
Excise Number	557117
Sale Amount	$1,000,000.00
Date of Sale	12/18/1996
Document Type	D-QCD
Document Number	
Excise Number	420137
Sale Amount	$0.00

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PROPERTY INFORMATION CENTER

Account Summary

Property Identification Number: 37910151 MapsOnline Fact Sheet
Property Type: Real
Property Status: Active
Site Address: 5303 E MILL PLAIN BLVD, VANCOUVER, WA 98661 (Situs Addresses)
Abbreviated Description: #187 JOHN W NYE DLC .42A

Tax Status: Regular

Property Owner	Owner Mailing Address	Property Site Address
TOWER MALL PROPERTIES LLC	400 E MILL PLAIN BLVD STE 500 VANCOUVER WA , 98660 US	5303 E MILL PLAIN BLVD, VANCOUVER, WA 98661 Google Maps Street View

Administrative Data

Info...

Jurisdiction	Vancouver
Land Use Planning	
Comprehensive Plan Designation	COM
Comprehensive Plan Overlay(s)	none
Urban Growth Area	Vancouver
Zoning Designation - Codes	Heights Plan District (HX)
Zoning Overlay(s)	none
Miscellaneous	
Census Tract	428.00
Drainage District	n/a
Neighborhood	n/a
Park District	B
Public Safety	
Burning Allowed	No
EMS Response Area	AMR
Fire District	Vancouver
Increased Wildfire Danger Area	No
Police Jurisdiction	VPD West District 2
Schools	
School District Name	Vancouver
Elementary School Attendance Area	Marshall

Electoral Data

Board of County Councilors District	1
Camas Council Ward	n/a
CPU Commissioner District	3
Election Precinct	225
Legislative District	49
Library District	Fort Vancouver Regional Library
Port District	Vancouver Port District 3
School District Board Director District	No Director Districts
Sewer Board District	Vancouver
State Weed Board District	2

Land Data

Approximate Area Info...	18,295 sq. ft. 0.42 acres
Clark County Road Atlas	Page 9
DOR Land Use Code Info...	58
Section-Township-Range	SW 1/4,S30,T2N,R2E PDF
Subdivision	no data
Survey	064146 071104

Sales History

Date of Sale	02/07/2005
Document Type	D-SWD
Document Number	
Excise Number	727024
Sale Amount	$0.00

Date of Sale	02/07/2005

Assessment Data Info...

2024 Values for 2025 Taxes

Market Value as of January 1, 2024

Land Value	$193,215.00
Building Value	$128,685.00
Total Property	$321,900.00

Taxable Value Info...

Total	$321,900.00

2023 Values for 2024 Taxes

Market Value as of January 1, 2023

Land Value	$175,650.00
Building Value	$117,000.00
Total Property	$292,650.00

Taxable Value Info...

Total	$292,650.00

General

Assessor Neighborhood	9620
Re-valuation Cycle	1
Notice of Value	2024 2023 2022 2021 2019 2018 2017

Property assessment value is valid as of the date printed on the linked notice of value. The

Middle School Attendance Area	McLoughlin
High School Attendance Area	Fort Vancouver
Transportation	
C-TRAN Public Transportation Benefit Area	Yes
Traffic Impact Fee (TIF) District	Columbia
Transportation Analysis Zone	1600
Utilities	
CPU Lighting Utility District	n/a
Last Street Sweeping	n/a
Sewer District	Vancouver
Waste Collection Provider	n/a
Waste Collection Day	n/a
Water District	Vancouver

The water service provider may be different from the indicated water district. Please contact the parcel's jurisdiction if you need to know the water service provider.

Document Type	D-QCD
Document Number	
Excise Number	560819
Sale Amount	$0.00
Date of Sale	12/24/2004
Document Type	DEED
Document Number	
Excise Number	557117
Sale Amount	$1,000,000.00
Date of Sale	12/18/1996
Document Type	D-QCD
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EXHIBIT C

Zoning Excerpt

Chapter 20.670
THE HEIGHTS (HX) PLAN DISTRICT

Revised

Sections:

20.670.010 Purpose.
20.670.020 Applicability.
20.670.030 Regulation of Uses.
20.670.040 Design and Development Standards. Revised
20.670.050 Design Standards Modification.
20.670.060 Approval Process. Revised

20.670.010 Purpose.

The Heights district is envisioned as a vibrant neighborhood center that is sustainable, healthy, equitable, accessible and safe, and includes a mix of complementary uses, engaging public open space, diverse housing affordable to a wide range of community members and safe multimodal travel opportunities within the district and to transit and nearby neighborhoods. The purpose of the Heights Mixed Use (HX) Plan district is to implement the vision, goals, and policies of the Heights District Plan, and ensure future development is integrated, cohesive, context sensitive and contributes to the overall district vision. (Ord. M-4341 § 3 (Exh. A), 2021)

20.670.020 Applicability.

These standards apply to the properties within the subdistrict areas shown on Figure 20.670-1. These standards shall be in addition to other applicable standards of Vancouver Municipal Code or state law, and shall supersede those standards where they conflict.

Figure 20.670-1. District and Sub-District Map

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Figure 20.670-1
District and Sub-District Map

(Ord. M-4341 § 3 (Exh. A), 2021)

20.670.030 Regulation of Uses.

A. Uses are allowed as specified in Table 20.430.030-1 and as shown in Figure 20.670-2, subject to standards and guidelines for The Heights district established in this chapter.

B. *Ground Floor Use Regulation by Frontage Type.* Ground floor uses shall be regulated by frontage type as shown in Figure 20.670-2.

1. *Commercial frontage.*
   a. All commercial uses, except office uses allowed.
   b. Residential uses prohibited except residential lobbies and entrances associated with upper story residential uses are allowed but limited to 25 percent of the total length of the street frontage.
   c. Institutional uses prohibited.
2. *Residential frontage.*
   a. Residential uses allowed.
   b. Commercial and institutional uses are prohibited.
3. *Mixed Residential/Commercial frontage.*
   a. Commercial uses allowed.
   b. Residential uses allowed but limited to no more than 50 percent of the total length of street frontage.
   c. Institutional uses prohibited.
4. *Limited Commercial frontage.*
   a. Residential uses allowed.
   b. Commercial uses allowed but limited to no more th total length of street frontage.

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c. Institutional uses prohibited.

Figure 20.670-2. Ground Floor Use Map

C. *Live/work uses and standards.* "Live/work" means a commercial space where residential and commercial uses are combined and where the dwelling unit is the principal residence of the business operator/proprietor.

1. *Uses.*

a. Live/work uses are permitted where commercial uses are permitted in the District Gateway and Innovation Hub sub-districts of the HX district.

b. The following commercial uses are prohibited in live/work units:

i. Any use not permitted in the HX district, as specified in Table 20.430.030-1;

ii. The retail sale of food and/or beverages with customers arriving on site. This does not include online (Internet) sales, mail order, or off-site catering preparation;

iii. Entertainment, drinking, and public eating establishments;

iv. Veterinary services, including grooming and boarding, and the breeding or care of animals for hire or for sale;

v. Businesses that involve the use of prescription drugs.

c. A live/work unit is allowed instead of, or in addition to, a home occupation.

d. The residential and the commercial space must be occupied by the same tenant, and no portion of the live/work unit may be rented or sold separately.

2. *Standards.*

a. The commercial use may occupy a maximum of 5(floor area;

b. Residential uses are permitted above, to the side, commercial use; provided, that there is internal access residential and commercial uses;

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c. Signage intended to promote on-site commercial uses shall be restricted to two-square-foot signs permanently affixed to door or wall of the commercial use;

d. No more than one employee (excluding residents of the dwelling unit) shall work or report to work on the premises, and the employment of any persons who do not reside in the live/work unit shall comply with all applicable building code requirements;

e. Off-site impacts of the commercial use, such as noise, glare, and vibration, shall be subject to city performance standards in VMC 20.935.030; and

f. Explosive, toxic, combustible, or flammable materials in excess of what is allowed incidental to permitted residential uses shall not be stored or used on the premises. (Ord. M-4341 § 3 (Exh. A), 2021)

20.670.040 Design and Development Standards.

This section was recently amended by Ordinance M-4402, codified in May 2023.

A. *MASSING AND SCALE.*

1. *Minimum Density.* The minimum residential densities in Table 20.670.040-1 shall apply in the HX district.

Table 20.670.040-1. Minimum Residential Density

Sub-District	Minimum Density
Activity Center	75 dwelling units/acre
Residential Neighborhood	45 dwelling units/acre
Innovation Hub	30 dwelling units/acre
District Gateway	30 dwelling units/acre

2. *Building Heights.* The building height standards in Table 20.670.040-2 shall apply in the HX district.

Table 20.670.040-2. Maximum Building Heights

Sub-District	Maximum Height
Activity Center	Maximum of 85 feet
Residential Neighborhood	Maximum of 85 feet
Innovation Hub	Maximum of 50 feet
District Gateway	Maximum of 50 feet not abutting residentially zoned properties
	Maximum of 40 feet abutting residentially zoned properties
	Maximum of 35 feet fro

Note: For The Heights district, abutting is defined as sharing a p residentially zoned property

3. *Height exceptions.* In addition to the height exceptions i 20.910.030, maximum height limitations set forth in this cha this title shall apply to the following in the HX district:

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a. *Parapets and railings.* Parapets and rooftop railings may extend four feet above the maximum height limit;

b. Walls or fences located between individual rooftop decks may extend six feet above the maximum height limit if the wall or fence is set back at least four feet from the edges of the roof;

c. Rooftop mechanical equipment, any required screening for the mechanical equipment, and stairwell enclosures that provide rooftop access may extend above the maximum height limit as follows, with the requirement that the equipment and enclosures must be set back at least 15 feet from roof edges on street-facing façades:

i. Elevator mechanical equipment may extend up to 16 feet above the maximum height limit; and

ii. Other mechanical equipment, required screening, and stairwell enclosures may extend up to 10 feet above the maximum height limit.

d. Roof-mounted solar energy production equipment may extend up to three feet above the maximum height limit; and

e. Wind energy production equipment may extend up to 30 feet above the maximum height limit.

4. *Building step downs and transitions.* In the District Gateway sub-district, building heights shall be reduced to a maximum of 40 feet within 60 feet of a shared property line with residential uses, and a maximum of 35 feet within 140 feet of Idaho Street.

5. *Building façades.* Building façades shall not exceed 165 feet in length without an intervening break.

6. *Build to Line.*

a. Building shall comply with the provisions of VMC 20.630.020 that describe building lines provisions for street frontages except no portion of the structure shall extend into the right-of-way except as specified in subsection (E)(2) of this section. Residential uses may include setbacks per subsection (C)(2) of this section.

b. *Setbacks for Pedestrian Amenities.* Setbacks up to 20 feet for up to 50 percent of the building frontage are allowed if the setback is used for a walkway, plaza, courtyard, or other pedestrian-oriented amenity or public space.

7. *Ground floor plane.* For buildings five stories and above, the maximum ground floor plate area shall not exceed 16,000 square feet. An option to this standard is to demonstrate significant massing breaks in the building façade to include recessed breaks (minimum of 20 feet in length and depth) and ground plane openings as pedestrian connections.

B. *MODULATION AND FAÇADE ARTICULATION.*

1. *Ground floor transparency.* Buildings with ground floor commercial uses visible from the public way or public areas such parks and o accessible space shall have a minimum 75 percent ground l transparency between two feet and eight feet above sidewa

2. *Ground floor to floor height.* The ground floor of comme have a minimum of 16 feet building floor to floor height.

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3. *Modulation.* A minimum building modulation along the façade shall be one foot in depth and the minimum width shall be five feet.

4. *Building entry.* Main entrances shall be easily identifiable through the use of building articulation and modulation. Avoid recessed doorways to provide high visibility from the public way.

C. *ENTRANCES.*

1. *Ground floor level.* Ground floor residential uses shall be elevated above the sidewalk grade a minimum of two feet six inches to create privacy adjacent to the public realm. For these units, ensure an alternate access point that is accessible (as required by the building code).

2. *Entryways.* Ground floor residential entrances shall be set back from the property line a minimum of six feet and a maximum of 10 feet to ensure privacy from the public realm. Porches, patios, private spaces allowed within the setback.

3. *Recessed ground floor level.* Recessed ground floors shall be restricted to one level height, except at main entrances.

4. *Vehicle entries.* For mixed use residential and commercial buildings requiring vehicular garage entrances, the garage opening shall be set back from the building frontage a minimum of six feet. Adhere to all required visual sight setbacks.

5. *Townhome Garage Parking.* A minimum of three-foot setback shall be applied for alleyway garage or tuck under parking.

D. *ROOF FORMS.*

1. *Roof lines.* The length of any continuous flat roofline shall not exceed more than 100 feet without modulation. The minimum modulation for roof lines is three feet.

2. *Roof Materials.* Roof materials shall meet the minimum SRI (solar reflectance index) standards to reduce urban heat gain. Inappropriate materials such as wood shingles, cement tiles and plastic slate and shingles shall be discouraged.

3. *Rooftop Projections.* Elevator cores, stair projections, solar panels and mechanical equipment shall be incorporated into the architecture of the building with consistent building materials. See subsection (A)(3) of this section for provisions regarding height, setbacks, and screening of rooftop features.

4. *Roof Decks.* Accessible roof decks shall provide safety setback standards from the roof edge and mechanical equipment as required.

E. *SECONDARY ARCHITECTURAL FEATURES.*

1. *Visual Interest.* Add visual depth to façades where appropriate by incorporating balconies, canopies, awnings, decks, or other secondary elements into the façade design.

2. *Encroachment.* A building's enclosed occupiable space shall not encroach into the right-of-way, with the exception of bay windows or balconies. Bay windows and balconies shall not extend more than four feet and 30 percent of width of residential units or 50 percent of units.

3. *Weather Protection.* Overhead weather protection shall streets with a minimum clear height of 10 feet and maximum feet consistent with the provisions of VMC 20.630.030 exce

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the pedestrian amenities articulated in subsection (A)(6)(b) of this section are utilized.

4. *Pedestrian oriented features.* At least 75 percent of the width of any new or reconstructed ground-level building wall facing a street shall be devoted to pedestrian-oriented features or material variation, pedestrian entrances and/or windows affording views into retail, storefront, office or lobby space.

5. *Blank walls.* Continuous blank walls shall not exceed 15 feet in length. Where blank walls are present, incorporate a range of design approaches such as green walls, façade articulation, art or other approved applications to create interest at the adjacent pedestrian area.

F. *MATERIALS AND COLORS.*

1. *Prohibited materials.* The following are prohibited exterior building materials: plastic laminate, glossy or large expanses of acrylic or plexiglass, pegboard, mirror, highly polished or plated metals (except as a trim), mirrored glass, fabric or paper wall coverings, plywood or particle board, sheet or modular vinyl, shingles, shakes and horizontal lap siding.

2. *Mechanical equipment.* Mechanical equipment and above grade utilities shall be located or screened with quality materials to minimize visual impact on the public right-of-way.

G. *LANDSCAPE DESIGN.*

1. *Adaptive Plant Types.* Use The Heights-Specific Preferred Native and Adaptive Plant Species List as a primary resource for all at-grade planting areas both on site and within the public right-of-way. If the plant species are not available, applicants shall submit no less than five statements from wholesale plant nurseries stating that plant materials are not available. If the planning official approves, applicants must provide plant substitutions that meet the same characteristics of the preferred plants such as but not limited to size, shape, fall color, flower, genetic potential. The characteristics must come from objective sources, such as books, manuals, or green industry cut sheets. The full Heights-Specific Native and Adaptive Plan Species List can be found in The Heights District Urban Design Standards and Guidelines, Appendix 1.0.

2. *Landscape requirements.* All development will meet or exceed landscaping standards in VMC 20.925.030-1 for the HX zone.

3. *Tree Cap Program.* Establish minimum standards for the district consistent with the city of Vancouver Tree Canopy Achievement Program (Tree CAP) neighborhood Gold Leaf standard for neighborhoods. More information about the city of Vancouver Tree CAP program can be found at: https://www.cityofvancouver.us/publicworks/page/tree-canopy-achievement-program-treecap.

4. *Landscaped Buffers, Planter Strips, and Vegetated Swales.* All landscape buffers, planter strips and vegetated swales approved as part of the development on site and/or within the public right-of-way shall be maintained. Plants shall be maintained in a vigorous and healthy condition, free from diseases, pests, and weeds. Competing vegetation shall be controlled to the exte establishment, survival, and growth of the plantings per the plan. Plants which become diseased, severely damaged, or removed and replaced by the owner as soon as possible bu if notified by the city. All plants removed shall be replaced wi the same size and species as required by the approved lan property.

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H. *STORMWATER.* In addition to the standards of Chapters 14.24, 14.25 and 14.26 VMC, the following standards apply in The Heights:

1. *Integrated Stormwater Management Systems.* The district shall incorporate stormwater management systems as a principle design element in order to manage and direct stormwater runoff while creating an opportunity to integrate public space amenities as part of the sustainable site management approach.

2. *System Design.* Stormwater infrastructure shall be designed as a complete system connecting buildings, sites, parcels and blocks as an interconnected system. The loop feature is a key stormwater management infrastructure that shall be connected to the MacArthur Greenbelt. These corridors shall serve as a passive public space and amenity while integrating functional roadway and stormwater features using the existing street rights-of-way.

3. *Sustainable Plant Materials.* Select plant materials conducive to periods of high-water levels, as well as prolonged periods of drought shall be utilized to mitigate varying seasonal conditions.

4. *Stormwater Management Infrastructure.* Stormwater infrastructure located in the public right-of-way shall be provided consistent with the city of Vancouver Transportation Standard Details for The Heights District and The Heights District Stormwater and Urban Forestry Guidance Document.

I. *SIGNAGE.*

1. All signage shall comply with the provisions of Chapter 20.960 VMC for number, location and size restrictions unless as modified herein.

2. *Sign Location.* Building signage shall be located no higher than the first floor of the building.

3. *Monument Signage.* Standalone monument signage is permitted if located on private property and shall not impede right-of-way vision triangles. Monument signs shall be no taller than eight and one-half feet above grade, no wider than four feet and be constructed of materials contained on the exterior of adjacent buildings.

4. *Electronic Message Center signage.* Electronic message center signage shall not be permitted.

5. *Master Sign Program – Individual Buildings.* Individual buildings that accommodate multiple businesses and require signage for each business shall produce a master signage program that defines the size, number, and locations of signs. The design of signs shall be reviewed and approved by the city as a part of the master sign program and building design review process to ensure the signage is integrated into the architecture and overall development.

6. *Master Sign Program – District.* All signs shall adhere to the master development signage program for The Heights district.

7. *Materials.* Signage shall be constructed of high quality, durable materials.

8. *Illumination.* Direct illumination such as goose neck, exterior illumination as well as halo style lettering or back lit lettering are the preferr[illegible] illumination. Channel letter signage is allowed as an option [illegible] applications are demonstrated to not be possible based on [illegible] mounting location, ambient light levels or to eliminate the us[illegible]

9. *Prohibited signage.* In addition to prohibited signage co[illegible] 20.960.030, the following signage or signage materials are p[illegible]

a. Cabinet signage/box signage/can signage

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b. No exposed raceways.

10. *Application.* Signage shall be appropriate for its intended use such as residential, office, and retail.

11. *Public Realm Signage.* Kiosk, wayfinding and interpretive signage intended to promote a comprehensive district placemaking strategy shall be allowed upon review from the city.

J. *PARKING.*

1. *Parking Strategy.* Provide a dispersed, shared parking strategy through a combination of surface, at-grade, podium and above-grade mixed-use parking structures that meet the demand of residents, visitors, and employees.

2. *Parking Ratios.* Parking will be provided to meet the acceptable city of Vancouver standards for the HX zone as listed in Table 20.670.040-3 and 20.670.040-4 below.

Table 20.670.040-3. Parking Minimums for Residential Uses

Sub-district	Required off-street parking	Parking reductions with transportation demand management (TDM) measures
Activity Center	1 space per dwelling unit	0.75 spaces per dwelling unit
Residential Neighborhood	1 space per dwelling unit	0.75 spaces per dwelling unit
Innovation Hub	1.25 spaces per dwelling unit	1 space per dwelling unit
District Gateway	1.25 spaces per dwelling unit	1 space per dwelling unit if development not abutting residentially zoned properties
		No reductions for development abutting residentially zoned properties

Note: For The Heights district, abutting is defined as sharing a property line with residentially zoned property

Table 20.670.040-4. Parking Minimums for Nonresidential Uses

Nonresidential Uses	
Uses	**Required off-street parking**
Office	1 space per 1,000 square feet
Hotel	0.5 spaces per lodging unit
Senior Living	1 space per living unit
Commercial/All Other Uses	No minimum requirement for ground floor uses

a. The minimum number of parking spaces required f may be reduced per Table 20.670.040-3 below, if the cit transportation demand management (TDM) plan for the development.

b. The TDM plan described in subsection (J)(2)(a) of include the following elements:

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i. Narrative describing the characteristics of the proposed development and how it is served by the larger transportation system, including roads, transit facilities and services, and other multimodal transportation facilities.

ii. Specific TDM measures to be employed to reduce transportation via single-occupancy vehicles and resulting on-site parking needs. Eligible TDM measures are listed in subsection (J)(2)(c) of this section.

iii. A description of how TDM measures will be communicated to users of the development.

iv. A description of how users will be required or encouraged to use TDM measures.

v. A proposed process for monitoring individual and overall use of TDM measures and reporting their use to the city on an annual basis.

c. TDM plans must include specific provisions to be eligible for residential parking reductions. TDM plans must include either measure from subsection (J)(2)(c)(i) or (ii) of this section, and at least three other measures selected from subsection (J)(2)(c)(iii), (iv), (v), (vi) or (vii) of this section, for a total of at least four measures:

i. Provision of annual transit pass or equivalent for residents at no charge or a rate reduced by 75 percent or more.

ii. Pricing for parking spaces that is charged separately from residential units.

iii. Designation of at least five percent of available parking spaces for high occupancy vehicle use.

iv. On-site presence of car-share vehicles and parking spaces (which account for at least five percent of the total number of parking spaces).

v. Use of a guaranteed ride home program or an agreement to pay into and utilize the city of Vancouver's existing guaranteed ride home program.

vi. On-site presence of shared cargo bikes available to all residential tenants.

vii. On-site provision of repair facilities and/or services for bicycles and other nonvehicular mobility devices available for all residential tenants.

d. Operators of an approved TDM program shall submit a report summarizing operation, and results of the program on an annual basis beginning one year after occupancy of the building. The report shall describe the following:

i. Specific TDM measures used.

ii. Certification that all TDM measures selected for the TDM program are operating as described in the TDM plan.

iii. Documented participation of program users, in number and frequency of use of measures and ser

e. Additional information about TDM program require provided to participants by city staff.

3. *Parking Standards.* All parking shall meet the requirem Chapter 20.945 VMC as applicable unless as contained her

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4. *Parking Structures.*

a. All structured parking shall be accessory to and integrated into a block and building envelope and will support multiple permitted uses in the district. Standalone parking structures are not permitted.

b. Any above grade structured parking shall be screened from public view by integrating into the overall building design, and/or through a combination of screen walls and landscape buffer areas. Screening provides an opportunity to enhance building design through the use of art, green walls, and innovative materials.

c. Semi subterranean parking shall be screened along all sides with the exception of entrances and exits. Separate openings for ventilation shall be screened with evergreen landscape planting and/or metal mesh screens.

5. *Surface Parking.* New surface parking lots shall be located behind buildings and screened from the public right-of-way. In the event screening by the building is not feasible, staff may consider surface parking lots located along the right-of-way with required screening.

6. *Parking Lot Screening.* A wall, fence, or evergreen planting is required between an off-street parking area and a street frontage in the HX district.

a. This screening is required for new construction or paving or repaving of a parking area over 1,000 square feet.

b. The wall or planting shall be a minimum height of two and one-half feet and a maximum height of three feet.

c. A fence shall be a maximum height of five feet. The total height of a combined wall and fence structure also shall be a maximum of five feet.

d. A pedestrian access (break in the screening) is required a minimum of every 150 feet or a minimum of one per street frontage.

e. Fencing shall be wrought iron.

f. A wall shall be a solid, decorative concrete, or masonry wall.

g. If a solid, plain wall, the wall must incorporate one of the following design features:

i. Decorative panels;

ii. Integrated planting (systems);

iii. Public art; or

iv. Other features as approved by the planning official.

7. *Existing Parking.* Existing surface parking lots will be allowed to be maintained until replaced by development of the parcels.

8. *Parking Access.* Access to structured parking shall only be from alleys or side streets. Access to structured parking is anticipated to be from designated secondary streets consistent with the city of Vancouver stan[illegible] road modifications.

9. *Parking Lot Lighting.* Parking lots shall be well lit to pro[illegible] night.

10. *Garage Openings.* Garage openings visible from publi[illegible] decorative screening to soften the appearance of the garag[illegible]

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11. *Parking Setbacks.* Parking garage entrances and exits shall be set back six feet from the building façade.

12. *Parking Signage.* All parking shall have clear signage and entrances/exits lighted.

13. *Bicycle parking.* Bicycle parking shall be provided to meet acceptable city of Vancouver standards for the HX zone as listed below in Table 20.670.040-5, and shall be consistent with the standards of VMC 20.945.050 and the city of Vancouver Bicycle Parking Guidelines.

a. Up to 50 percent of long-term bicycle parking spaces may be provided in individual residential dwelling units, if they meet the following criteria:

i. The bicycle parking is located within 15 feet of the entrance to the dwelling unit.

ii. The bicycle parking is located in a closet or alcove of the dwelling unit that includes a rack.

iii. For buildings with no elevators that utilize the in-unit long-term bicycle parking provisions, in-unit long-term bicycle parking spaces may only be located in ground floor units.

Table 20.670.040-5. Bicycle Parking Minimums

Uses	Required Short-Term Bicycle Parking	Required Long-Term Bicycle Parking
Residential	0.05 per dwelling unit, 2 spaces minimum	1 per dwelling unit for buildings with 5 or more dwelling units
Commercial	1 per 5,000 sf of floor area, 2 spaces minimum	1 per 15,000 sf of floor area, 2 spaces minimum
Office	1 per 25,000 sf of floor area, 2 spaces minimum	1 per 5,000 sf of floor area, 2 spaces minimum
Civic/Institutional Buildings	1 per 5,000 sf of floor area, 2 spaces minimum	1 per 15,000 sf of floor area, 2 minimum
Lodging	2 spaces minimum	1 per 10 rooms, 2 spaces minimum
Parks	1 per 5,000 sf park area, 2 spaces minimum	None

b. *Additional Development Standards.* The following standards apply to sites where more than 20 long-term bicycle parking spaces are required and provided in one or more shared bicycle parking facilities outside of individual dwelling units:

i. *Minimum Number of Horizontal Bicycle Parking Spaces.* At least 20 percent of spaces must be in a horizontal rack, or on the lower level of a stacked bicycle parking rack.

ii. *Parking for Larger Bicycle Spaces.* At least five must accommodate a larger bicycle space for carg horizontal rack. These spaces must be a minimum inches) in width, 10 feet (120 inches) long with thre (40 inches) of height clearance.

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iii. *Electrical Outlet Requirement.* At least 20 percent of spaces must have electrical sockets within four feet of the spaces. Each electrical socket must be accessible to horizontal bicycle parking spaces.

K. *UTILITIES AND SCREENING.*

1. *Utility and Solid Waste Locations.* Utilities shall be located away from primary streets and pedestrian sidewalks and located on alleys or from secondary streets wherever possible.

2. *Below Grade Utilities.* Utilities shall be located below grade in vaults or inside buildings where possible. Solid waste containers and disposal areas shall be located inside buildings. If not possible, screening shall be provided per Chapter 20.970 VMC.

3. *Venting System Locations.* Venting of air exhaust and mechanical building systems shall be away from primary streets and main pedestrian areas and shall be architecturally incorporated into buildings.

4. *Wall-Mounted Utilities.* Utilities mounted on building walls shall not intrude on the public right-of-way space adjacent to a pedestrian path of travel, shall be set back, or have a landscape zone for a buffer.

5. *Mechanical Vents.* Mechanical vents required on building exteriors shall be located eight feet above grade or between grade and 18 inches and shall be integrated into the façade design to minimize visual impacts. (Ord. M-4402 § 3(Q), 2023; Ord. M-4341 § 3 (Exh. A), 2021)

20.670.050 Design Standards Modification.

Modifications to design standards listed above and The Heights Urban Design Guidelines, with the exception of height and parking, may be processed as part of the request for site plan approval if the applicant can demonstrate compliance with the following approval criteria:

A. The modification(s) is warranted given site conditions and/or characteristics of the design; and

B. The proposed change meets the intent of the development standards and The Heights Subarea Plan and is consistent with the Design Guidelines; and

C. The proposed change will not result in a substantial impact to transportation, water, sewer, or stormwater management systems; and

D. The proposed change is consistent with Vancouver Municipal Code and Vancouver Comprehensive Plan. (Ord. M-4341 § 3 (Exh. A), 2021)

20.670.060 Approval Process.

This section was recently amended by Ordinance M-4402, co

A. New developments and modifications to existing permitted c comply with the approval process outlined in Chapter 20.270 VM and VMC 20.790.530, Planned Action Review.

B. New development and modifications to existing permitted de comply with design review approval criteria for the HX district esi subsection D of this section unless exempted. The following activities shall be

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administratively exempt from design review:

1. Exterior work not visible from the public way or public areas such as parks and other publicly accessible spaces;

2. Placement of permanent signs, unless (a) inconsistent with adopted design guidelines, such as pole signs; or (b) potentially inconsistent with nearby uses;

3. Public art; and

4. Other minor construction such as replacement of doors, windows, awnings, etc., determined by the planning official to be exempt.

C. *Site plan approval criteria.* The site plan shall be approved, approved with conditions or denied upon finding that:

1. The proposed development implements The Heights District Plan and the requirements of this chapter;

2. The proposed development is consistent with The Heights District Plan vision, goals, and policies, as applicable;

3. The development is consistent with The Heights District Urban Design Guidelines or proposed standards that will achieve at least equal quality site development;

4. All new development is consistent with the conceptual street and open space layout as illustrated in The Heights District Subarea Plan and Urban Design Guidelines.

D. *Design review approval criteria.* The planning official shall base all reviews of the design of any proposed construction, remodeling or development according to the following criteria:

1. The requirements, guidelines, and applicable provisions of this title that are applicable to the zoning district where the property is located and including all additional zoning regulations which may apply to the use or to its area by provision for overlay district, or made applicable by any conditional use or variance approval;

2. The Heights Urban Design Guidelines kept on file and available for public inspection at the community development department;

3. The relationship found to exist between existing structures and open space, and between existing structures and other structures in the vicinity, and the expected effect of the proposed construction upon such relationships;

4. The impact of the proposed construction on adjacent uses, including impact of new or revised parking and pedestrian uses;

5. The protection of neighboring uses from identifiable adverse effects of the design of the proposed construction; and

6. The proposed development is consistent with The Heights District Plan vision, goals, and policies, as applicable. (Ord. M-4402 § 3(R), 2023; Ord. M-4341 § 3 (Exh. A), 2021)

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The Vancouver Municipal Code is current through Ordinance M-4419, passed August 21, 2023.

Disclaimer: The city clerk's office has the official version of the Vancouver Municipal Code. Users should contact the city clerk's office for ordinances passed subsequent to the ordinance cited above.

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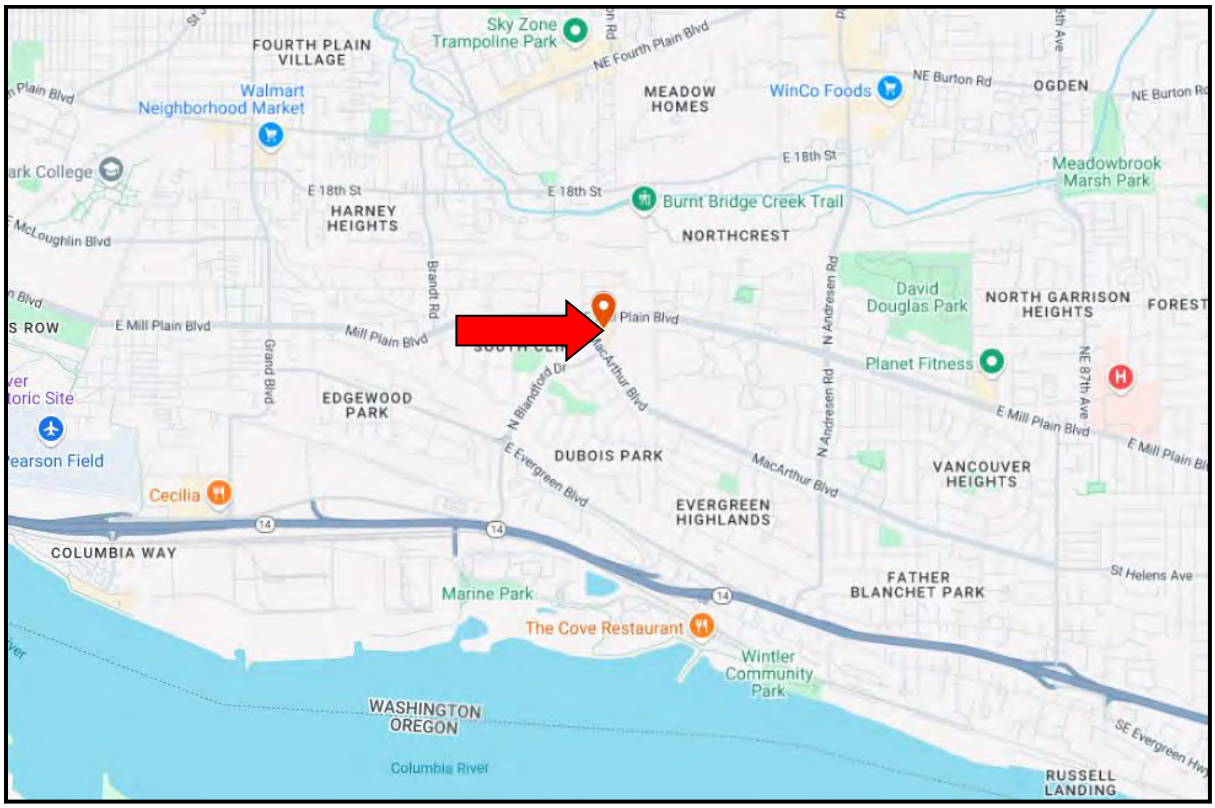
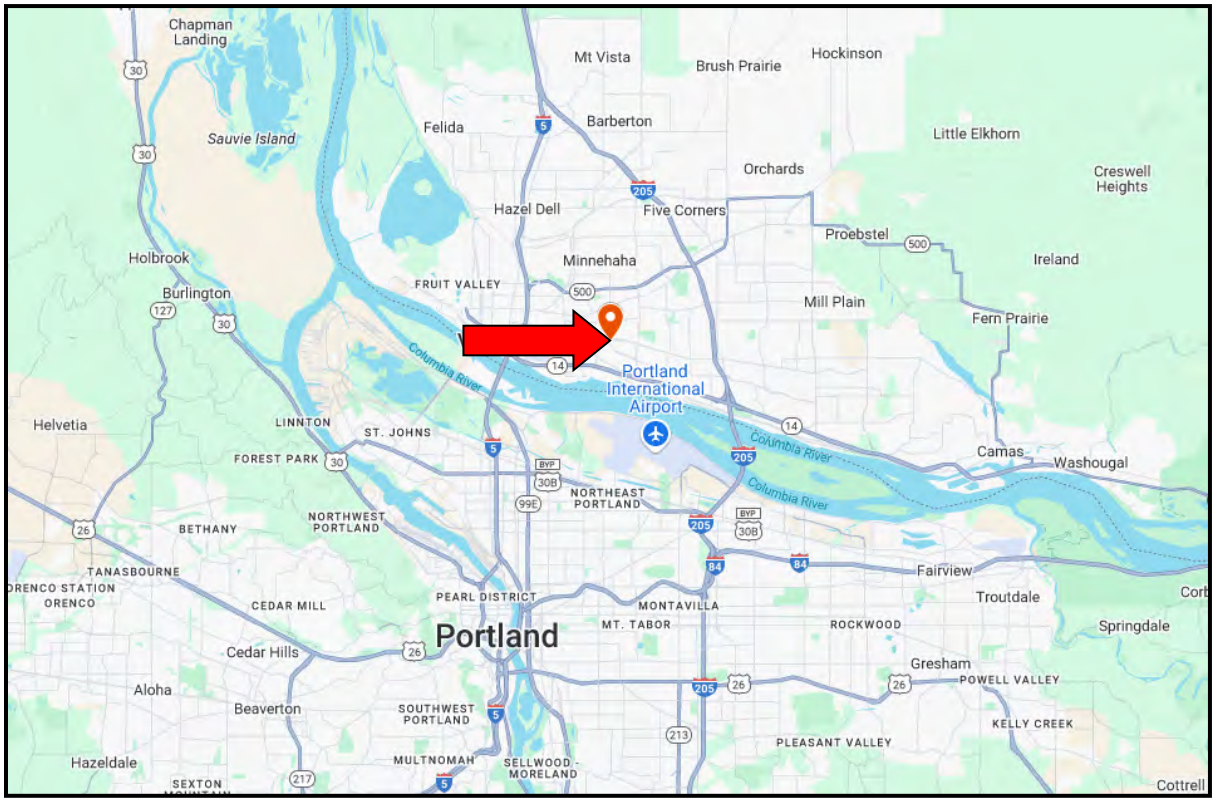
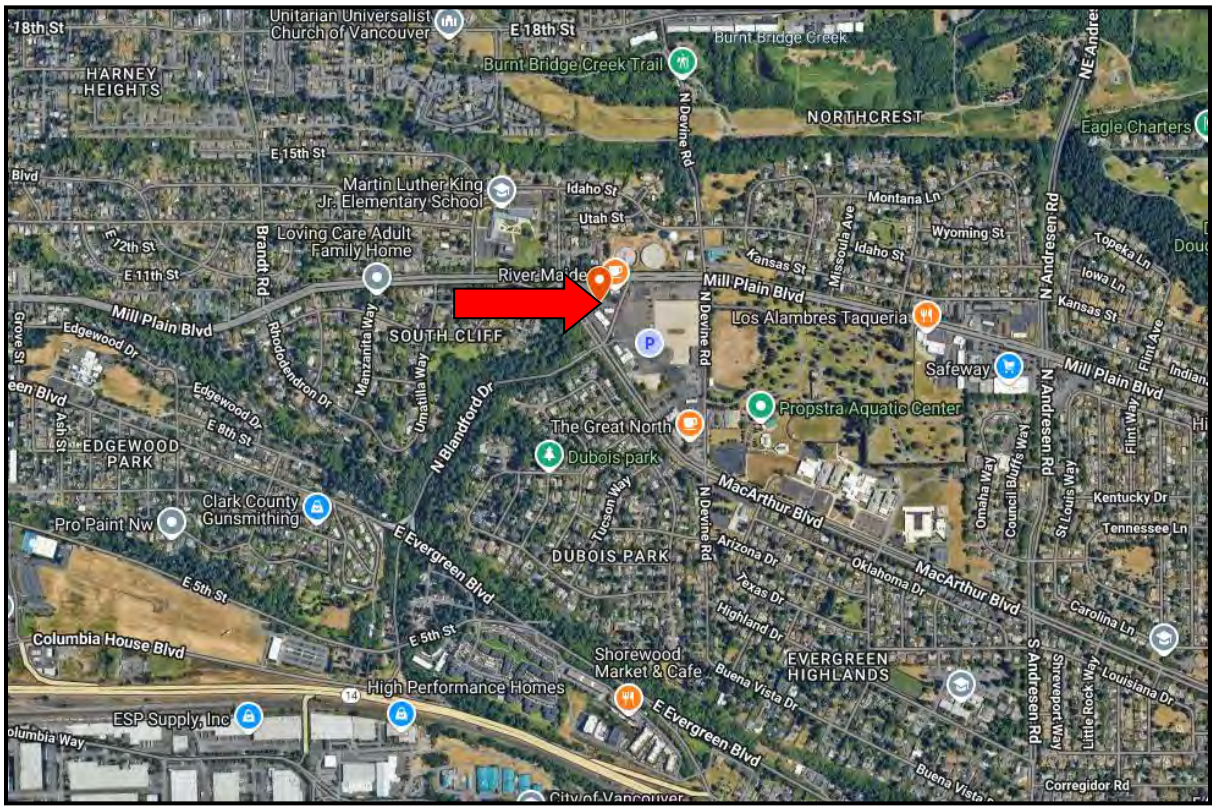
EXHIBIT D

Subject Property Map Exhibits

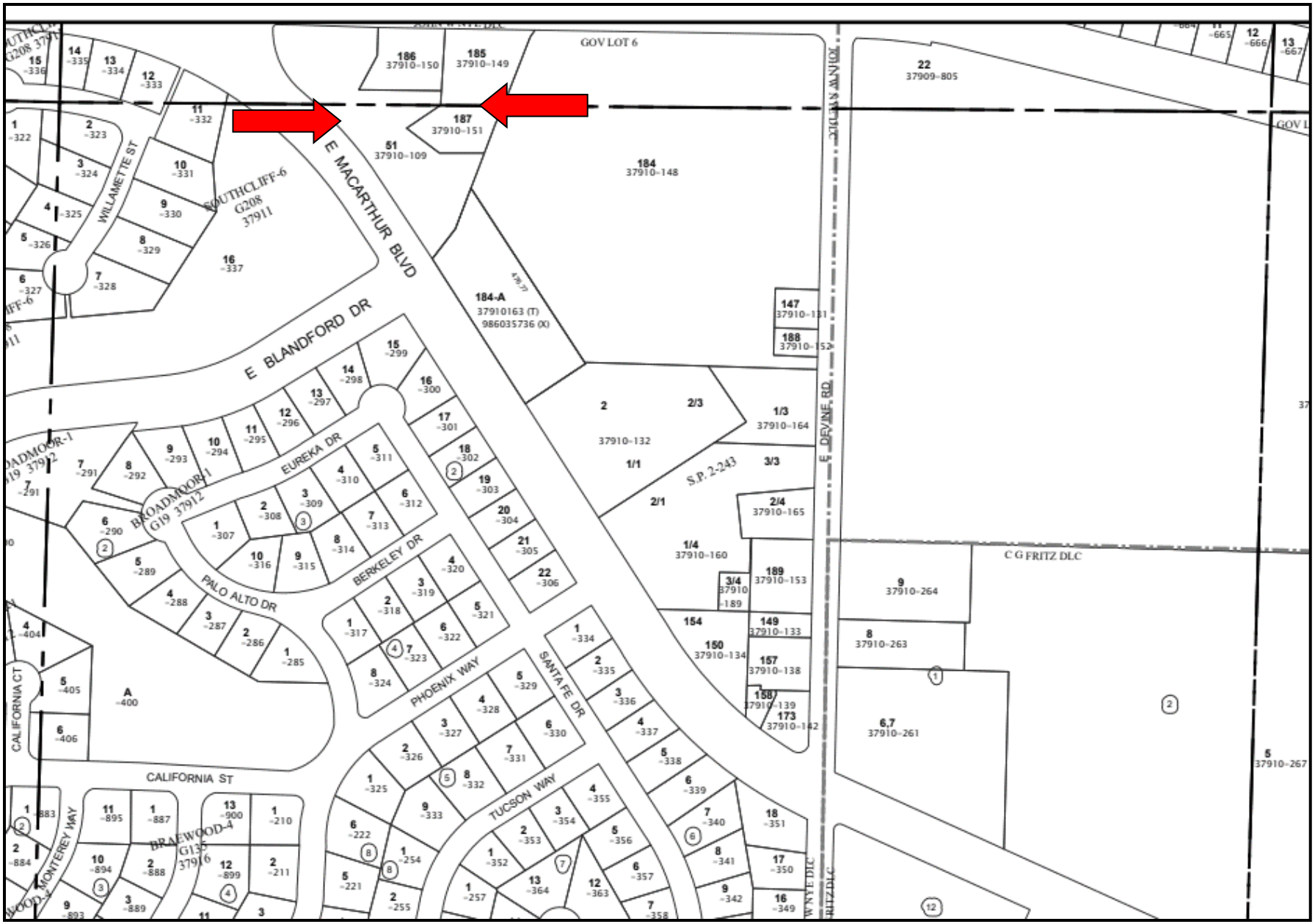




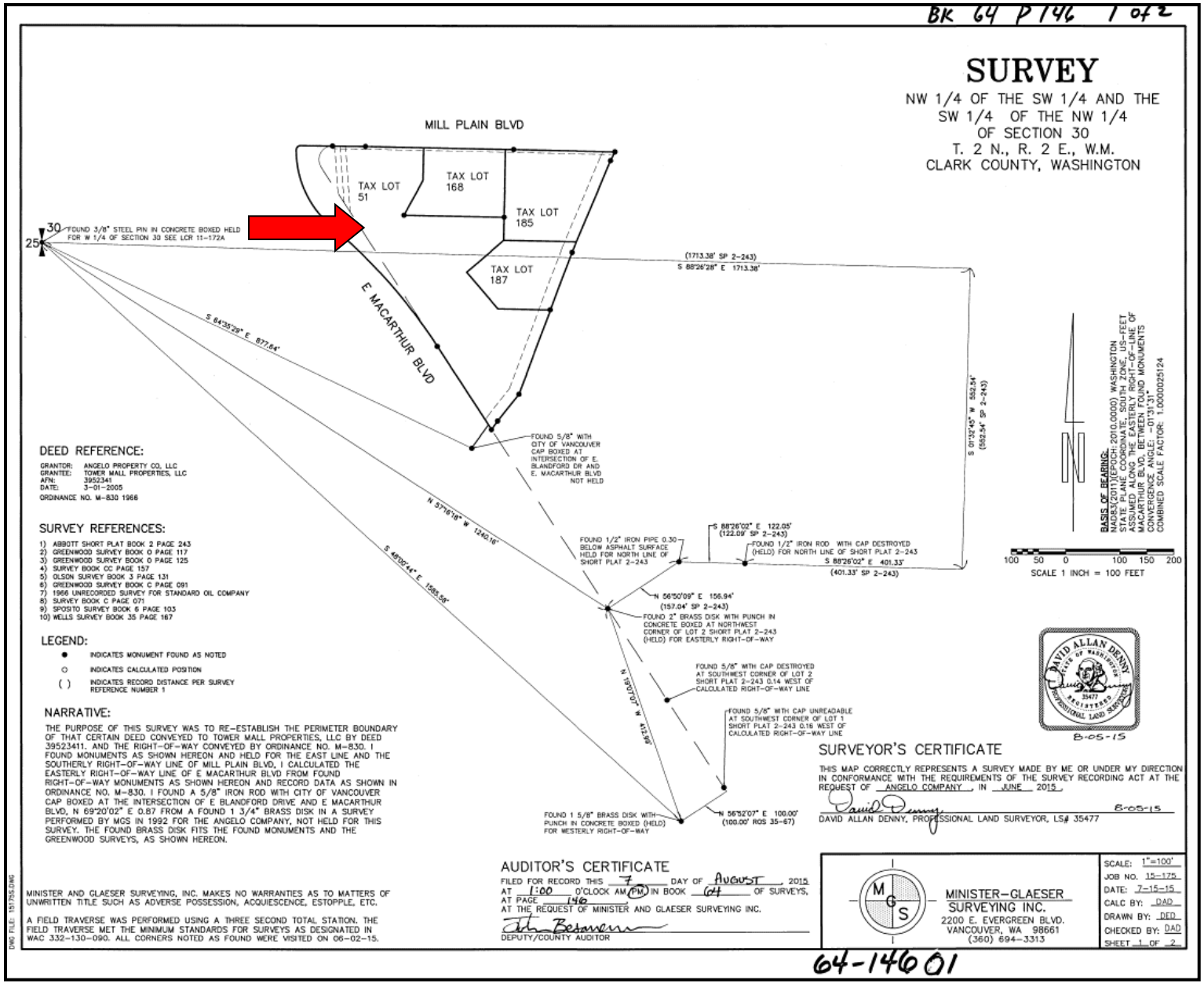
Location Maps



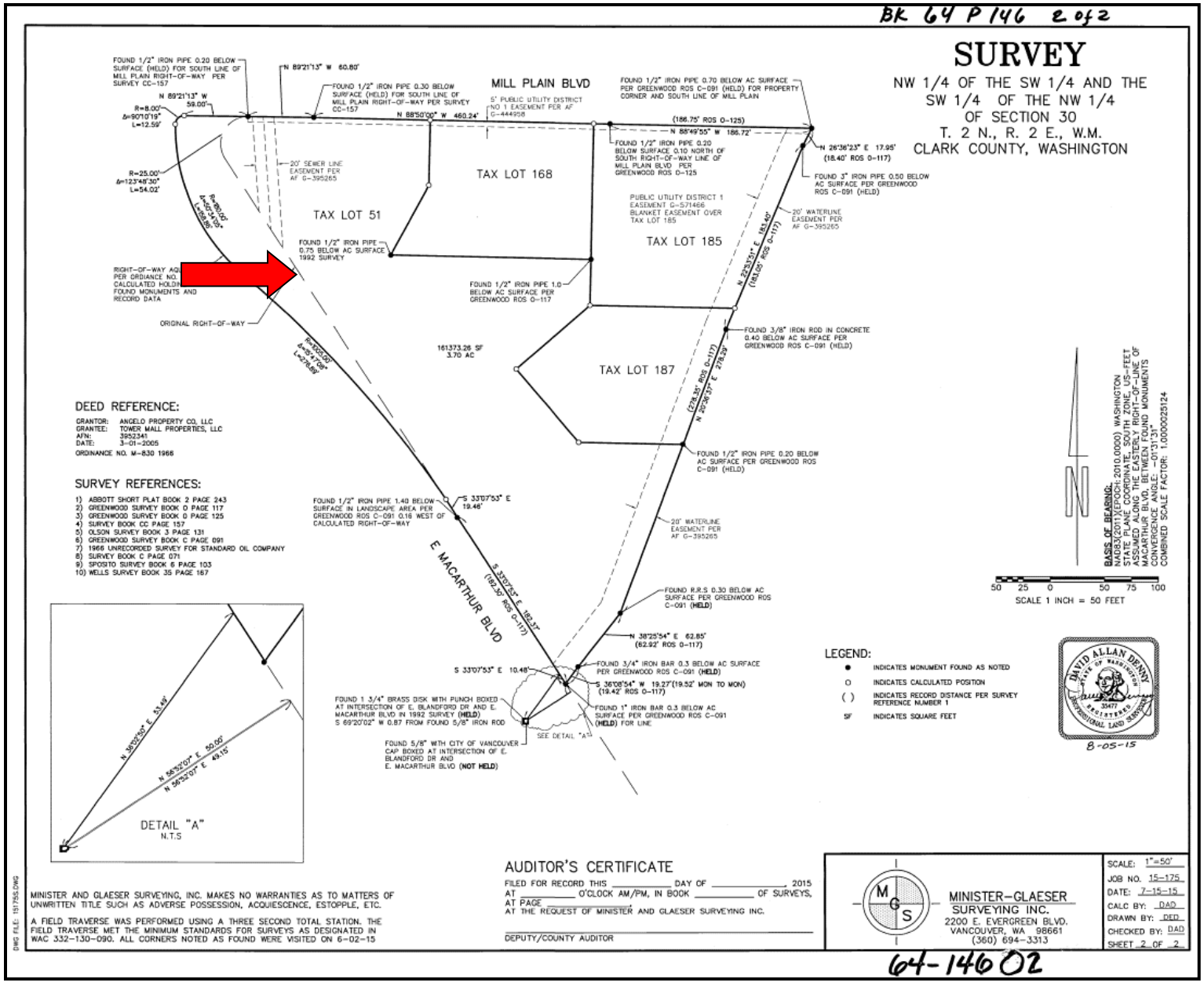
Aerial Photographs



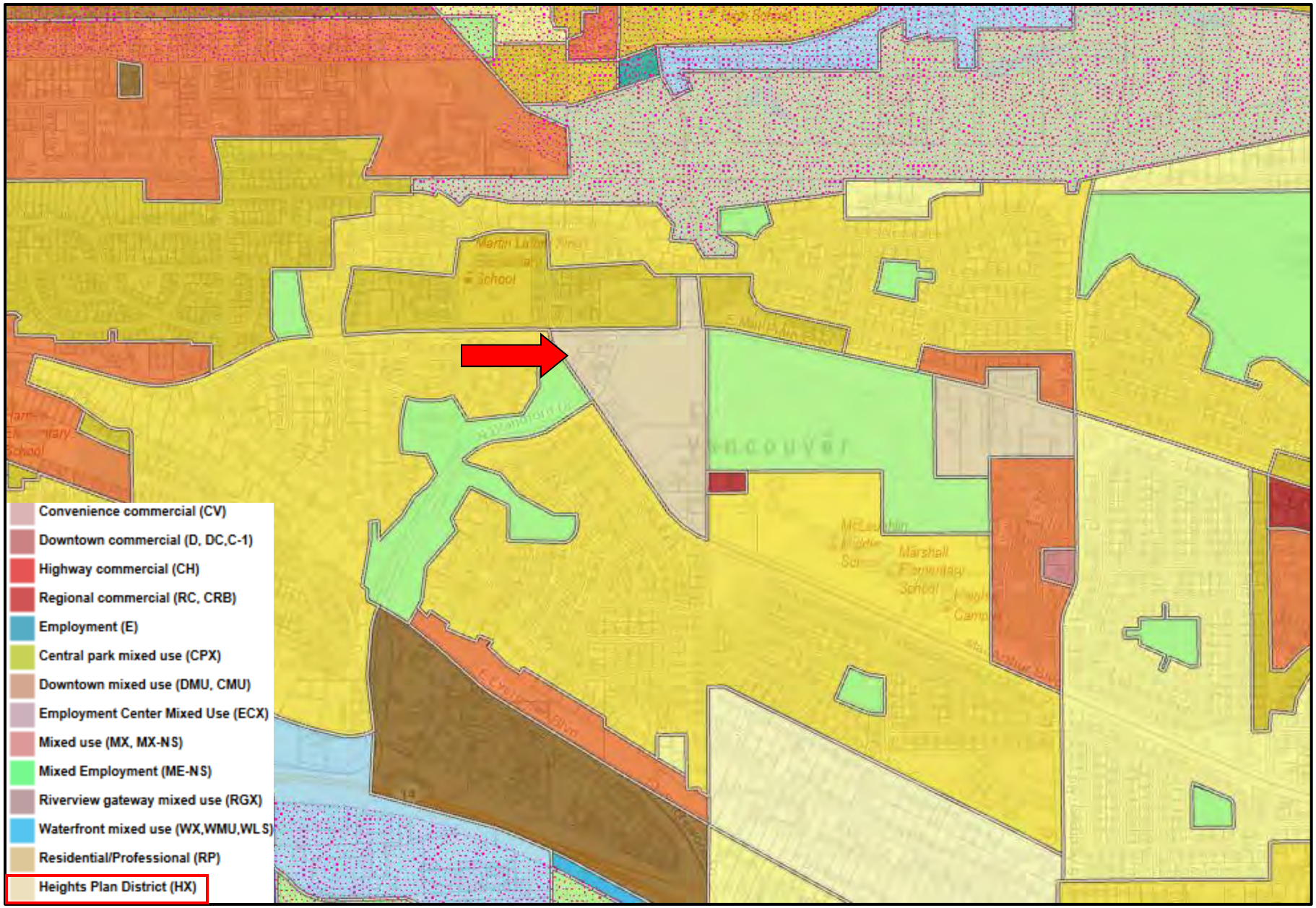
Assessor Map



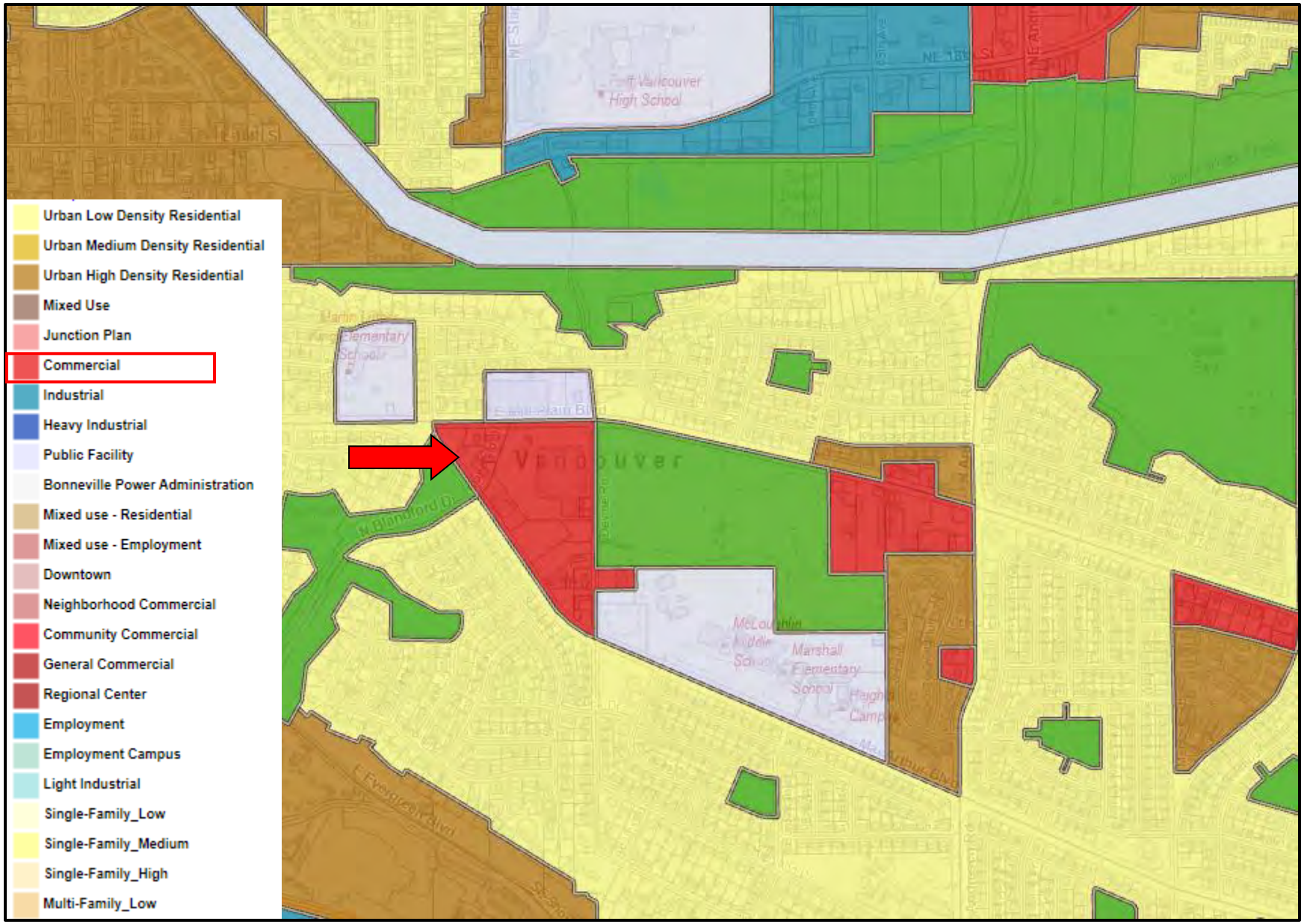
Survey No. 64-14602 (1 of 2)



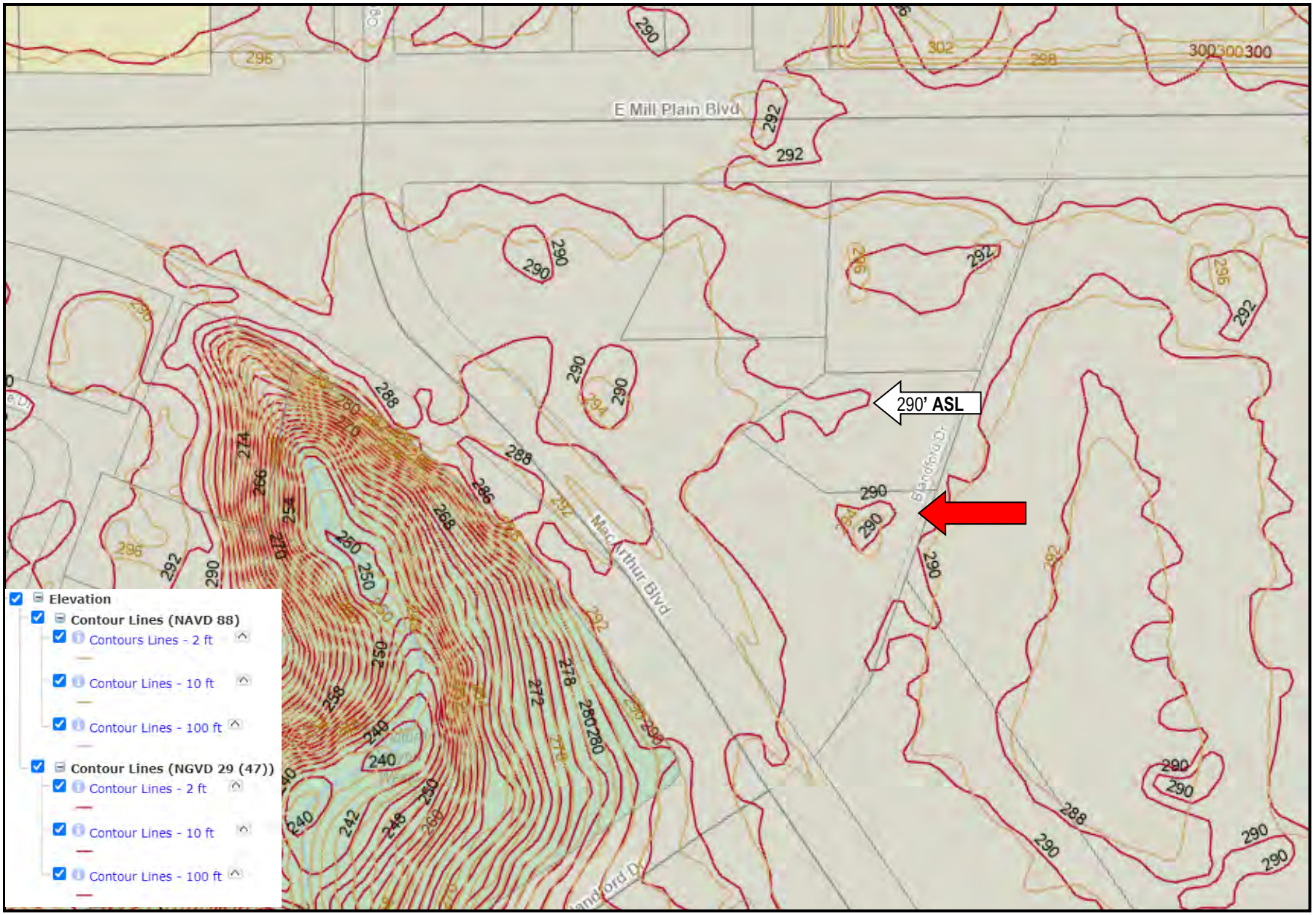
Survey No. 64-14602 (2 of 2)



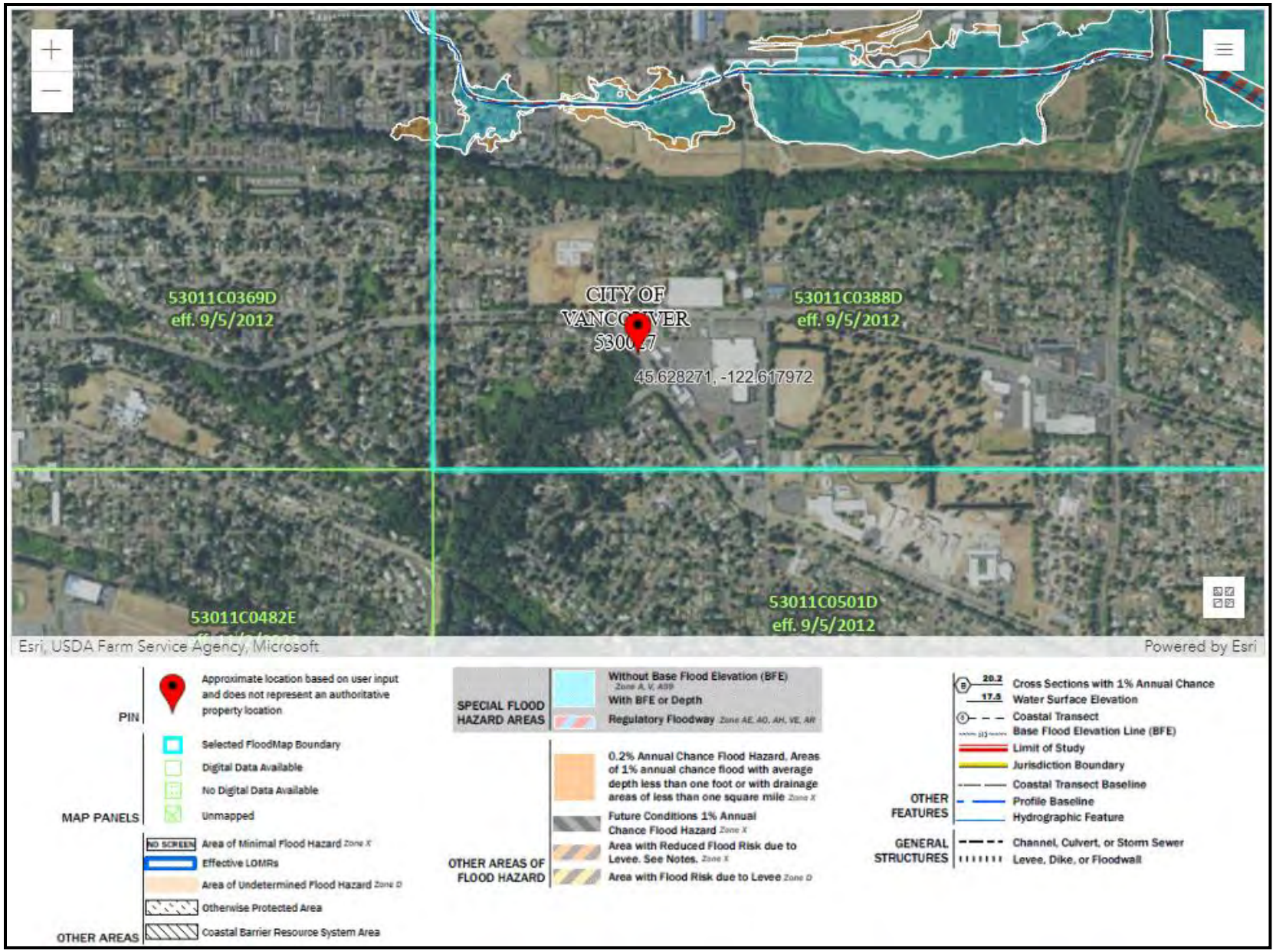
Clark County Zoning Map



Clark County Comprehensive Plan Map

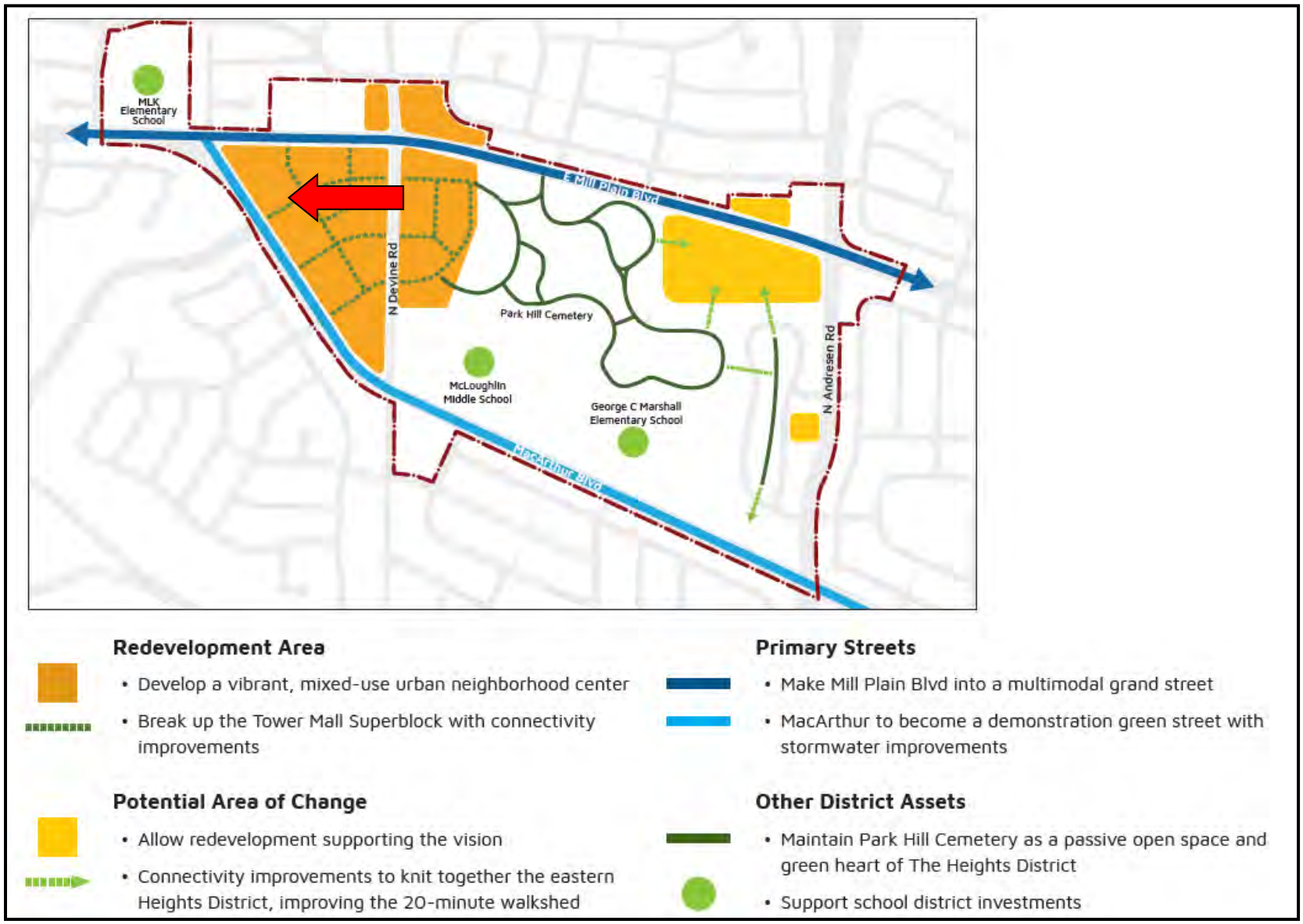


Clark County Contour Map



FEMA Flood Hazard Map

The Heights District Study Area



The Heights District Redevelopment Area with Connectivity Improvements

The Heights District Proposed Land Use Plan

FUTURE LAND USE SCENARIO

	Existing	Proposed	Total
Inside Redevelopment Area			
Residential (Units)	2	1,340	1,342
Commercial[1] (Sq. Ft.)	258,500[5]	204,000	204,000[2]
Institutional (Sq. Ft.)	178,500	163,000	163,000[7]
Outside Redevelopment Area - Higher Likelihood to Redevelop			
Residential (Units)	0	360	360
Commercial[1] (Sq. Ft.)	88,000	0[3]	88,000
Institutional (Sq. Ft.)	20,000	0	0
Outside Redevelopment Area - Low Likelihood to Redevelop			
Residential Units	1	100	100
Commercial[1] (Sq. Ft.)	87,000	0[3]	87,000
Institutional (Sq. Ft.)	70,500	0	0
Outside Redevelopment Area - Ltd. to No Likelihood to Redevelop			
Residential (Units)	229	0	229
Commercial[1] (Sq. Ft.)	12,000	0	0
Institutional (Sq. Ft.)	319,000	0	319,000
TOTAL			
Residential (Units)	232	1,800	2,032[4]
Commercial[1] (Sq. Ft.)	445,500	204,000	379,000[2]
Institutional (Sq. Ft.)	588,000	162,800	482,000

NET CHANGE IN UNITS AND COMMERCIAL SPACE

- An estimated 1,340 residential units are planned for the Tower Mall Redevelopment Area.
- Other properties outside the Redevelopment Area will likely redevelop in the mid- to long-term, and will also likely include some residential units. Based on the market analysis conducted as part of this process, the Plan estimates up to 460 additional residential units could be added on these parcels over the 20-year buildout timeline.
- Net commercial leasable space will effectively be unchanged. Vacant and underutilized space within the Tower Mall will be removed. Displaced commercial tenants will have an opportunity to integrate into the redevelopment.

[1] Commercial includes retail, office, hospitality, and services

[2] The apparent net decrease in commercial space comes from demolishing the underutilized Tower Mall

[3] These sites are likely to be redeveloped as mixed-use buildings, but with no net change in commercial space

[4] Without "low likelihood to redevelop" area: 1,932 Units

[5] This only counts the portion of Tower Mall currently used as commercial space

[6] Estimated number of units based on existing zoning

[7] The existing church inside the Tower Mall Redevelopment Area may be redeveloped over time. The total includes potential church/multi-purpose and civic uses (20,000 and 16,000 sf respectively)

The Heights District Future Land Use Scenario

The Heights District Parks and Playfields Plan

TOWER MALL REDEVELOPMENT PLAN

OVERVIEW

The Heights District is envisioned as a thriving, vibrant, mixed-income neighborhood. At its core is the 63-acre Tower Mall Redevelopment Area.

Envisioned as a 20-minute neighborhood, The District and the Redevelopment Area include a mix of uses with a network of public amenities linked by pedestrian-friendly complete streets, protected bike lanes, wide sidewalks, and a central placemaking element, The Loop.

The Loop is a three-quarter-mile pedestrian-oriented street and linear park that knits together shops, restaurants, residents, park spaces and workplaces as part of a neighborhood amenity. It will serve as the principal organizing element to unify the urban neighborhood and uses.

PROJECT INFORMATION

Site Area	63 acres
Existing Zoning	Varies
Existing Uses	Commercial office, retail
Property Ownership	11 property owners
Proposed Zoning	HX* (mixed-use)
Maximum Height	6
Parking Provided	2,160 spaces (estimated)

*HX is a proposed new zone classification for The Heights District. "Mixed-use" may include the following uses: residential, retail, office, hospitality, civic, public facilities, parks and plazas. The new proposed HX zoning district will not be applied to the Northcrest Church property through implementation of this Plan.

Fig 25: Artist Rendering: Tower Mall Redevelopment Area

The Tower Mall Redevelopment Plan

Fig 31: Neighborhood Districts

NEIGHBORHOOD DISTRICTS

The Tower Mall Redevelopment Area's organizational structure is defined by a series of character zones that provide a unique set of design pre-requisites. Each character zone is expressed differently to address unique character attributes, massing, scale and uses, as well as how they relate to the context of adjacent uses. The following character zones have been established for The District:

District Gateways serve as entries to The Heights District and include elements that define it. Buildings help frame the intersections, public art and signage provide wayfinding, and the scale and context of adjacent uses are acknowledged and respected.

The Activity Center is the "heart" of The District. This includes the most diversity of uses, highest density of buildings, highest quality of construction materials, and amenities.

The Residential Neighborhood includes lower-scale townhomes, family housing, quiet, tree-lined streets, and parks, with views toward Park Hill Cemetery's open spaces and informal walking paths.

The Innovation Hub incorporates eclectic uses, such as health-supportive services, office employment, and live/work uses, at a comfortable scale adjacent to the proposed MacArthur Boulevard greenbelt.

Neighborhood Districts

Northerly 3D View of Proposed Tower Mall Redevelopment Plan Area

Fig 46: Internal Streets Diagram

INTERNAL STREETS

Internal streets within the Redevelopment Area are designed to provide a safe, multimodal function consistent with the character and context of adjacent uses. Each street type responds to the character and scale of the Redevelopment Area. Features that activate the street, such as outdoor restaurants, seating, patios, storefronts, entrances to residential buildings, and publicly accessibly plazas, are important to the internal street network. All street types are intended to support on-street parking and shared bicycle facilities with sharrow pavement markings as needed. Figure 41 highlights the various Internal Street types for the Redevelopment Area.

Loop Retail Street
The Retail Street is a major feature of the Activity Center. This street type supports retail uses and may include wider sidewalks, outdoor café seating, festival lighting, special paving, street trees and interpretive art.

Loop Residential Street
The Loop Residential Street type is characterized as neighborhood-scale and park-like with large shade trees, stormwater planters, and a variety of seating areas with benches, lighting, and artworks that add interest and enjoyment.

Loop Festival Street
A portion of The Loop in the mixed-use Activity Center is envisioned as a flexible festival street or woonerf (pedestrian-oriented shared street) that can support temporary closure for special events. This street type may include special placemaking amenities such as raised crossings, removable bollards, and paving materials and infrastructure for electrical power, lighting, and staging needs.

Standard Street
The Standard Street is a low speed, traffic calmed street that includes shared travel lanes, street trees, pedestrian lighting and generous sidewalks.

Internal Street with Angled Parking
Similar to the Standard Street, this low-speed street type accommodates shared travel lanes, sidewalks and street trees. On one side of the street is parallel parking while the other is reverse angle parking to expand event and retail parking during peak use. Sharrows are provided to inform motor vehicle operators that travel lanes are shared with bikes.

*Internal street typologies are designed to be paired with adjacent land uses (i.e. retail, residential, festival); flexibility in which typology is applied in which location should be considered based on the type of uses in each location.

The Heights District Internal Streets Diagram

EXHIBIT E

Pending Heights District Redevelopment Project Acquisitions

Tower Mall Properties LLC
Right-of-Way Acquisition
Legal Description

Being a portion of that parcel of land conveyed to Tower Mall Properties, LLC, a Washington Limited Liability company as described in Auditor's File Number 5176933, Clark County Deed Records, and being a portion of the John Nye Donation Land Claim located in the Southwest one-quarter of Section 30, Township 2 North, Range 2 East of the Willamette Meridian, City of Vancouver, Clark County, Washington and being more particularly described as follows:

COMMENCING FROM the Westerly most corner of Lot 2 of that Short Plat recorded in Book 2, Page 243, Short Plat Records of Clark County, Washington;

Thence North 33°07'37" West, along the Westerly line of said Parcel II (also being the easterly right-of-way line of MacArthur Boulevard), 391.83 feet to the Southern-most corner of said Auditor's File Number 5176933;

Thence continuing North 33°07'37" West, along the Westerly line of said Auditor's File Number 5176933 (also being the easterly right-of-way line of MacArthur Boulevard), 201.74 feet to the beginning of a 1005.00-foot radius non-tangent curve to the left;

Thence continuing along said easterly right-of-way line and the arc of said 1005.00-foot radius curve to the left, through a central angle of 15°47'05" (the long chord of which bears North 42°13'36" West, 276.00 feet) an arc distance of 276.87 feet to the beginning of a 180.00-foot radius reverse curve to the right;

Thence continuing along said easterly right-of-way line and the arc of said 180.00-foot radius curve to the right, through a central angle of 22°55'42" (the long chord of which bears North 38°34'49" West, 71.55 feet) an arc distance of 72.03 feet to the **TRUE POINT OF BEGINNING** of the herein described right-of-way acquisition;

Thence continuing along said easterly right-of-way line and the arc of said 180.00-foot radius curve to the right, through a central angle of 27°41'33" (the long chord of which bears North 13°16'12" West, 86.15 feet) an arc distance of 87.00 feet to the beginning of an 8.00-foot radius compound curve to the right;

Thence along the arc of said 8.00-foot radius curve to the right, through a central angle of 90°04'51" (the long chord of which bears North 45°37'01" East, 11.32 feet) an arc distance of 12.58 feet to a point on the southerly line of East Mill Plain Boulevard;

Exhibit A – ROW North

Thence South 89°20'34" East, along said southerly line, 119.66 feet to an angle point;

Thence South 88°49'53" East, continuing along said southerly line, 68.51 feet to a point;

Thence South 01°10'07" West, leaving said southerly line, 14.50 feet to an angle point;

Thence North 88°49'53" West, along a line 14.50 feet southerly of when measured parallel with the southerly line of said East Mill Plain Boulevard, 68.44 feet to an angle point;

Thence North 89°20'34" West, continuing along a line 14.50 feet southerly of when measured parallel with the southerly line of said East Mill Plain Boulevard, 121.29 feet to an angle point;

Thence South 00°39'26' West, 30.18 feet to the beginning of a 194.69-foot radius non-tangent curve to the left;

Thence along the arc of said 194.69-foot radius non-tangent curve to the left, through a central angle of 14°29'39" (the long chord of which bears South 16°25'14" East, 49.12 feet) an arc distance of 49.25 feet to the **TRUE POINT OF BEGINNING**.

Contains in all 3,038 square feet, more or less.

Together with and/or subject to easements of record as applicable.

See Exhibit Map attached hereto

Exhibit A- ROW North

Tower Mall Properties LLC
Temporary Construction Easement
Legal Description

Being a portion of that parcel of land conveyed to Tower Mall Properties, LLC, a Washington Limited Liability company as described in Auditor's File Number 5176933, Clark County Deed Records, and being a portion of the John Nye Donation Land Claim located in the Southwest one-quarter of Section 30, Township 2 North, Range 2 East of the Willamette Meridian, City of Vancouver, Clark County, Washington and being more particularly described as follows:

COMMENCING FROM the Westerly most corner of Lot 2 of that Short Plat recorded in Book 2, Page 243, Short Plat Records of Clark County, Washington;

Thence North 33°07'37" West, along the Westerly line of said Parcel II (also being the easterly right-of-way line of MacArthur Boulevard), 391.83 feet to the Southern-most corner of said Auditor's File Number 5176933 and the **TRUE POINT OF BEGINNING** of the herein described temporary construction easement;

Thence continuing North 33°07'37" West, along the Westerly line of said Auditor's File Number 5176933 (also being the easterly right-of-way line of MacArthur Boulevard), 201.74 feet to the beginning of a 1005.00-foot radius non-tangent curve to the left;

Thence continuing along said easterly right-of-way line and the arc of said 1005.00-foot radius curve to the left, through a central angle of 15°47'05" (the long chord of which bears North 42°13'36" West, 276.00 feet) an arc distance of 276.87 feet to the beginning of a 180.00-foot radius reverse curve to the right;

Thence continuing along said easterly right-of-way line and the arc of said 180.00-foot radius curve to the right, through a central angle of 22°55'42" (the long chord of which bears North 38°34'49" West, 71.55 feet) an arc distance of 72.03 feet to the beginning of a 194.69-foot radius compound curve to the right;

Thence leaving said easterly right-of-way line, along a proposed right-of-way acquisition line and the arc of said 194.69-foot radius compound curve to the right, through a central angle of 14°29'39" (the long chord of which bears North 16°25'14" West, 49.12 feet) an arc distance of 49.25 feet to a point of non-tangency;

Thence North 00°39'26" East, continuing along said proposed right-of-way line, 30.18 feet to an angle point;

Exhibit A- TCE

Thence South 89°20'34" East, continuing along said proposed right-of-way line, 121.29 feet to an angle point;

Thence South 88°49'53" East, continuing along said proposed right-of-way line, 60.07 feet to an angle point;

Thence South 00°51'13" West, leaving said proposed right-of-way line, 5.07 feet to an angle point;

Thence North 88°49'53" West, 60.07 feet to an angle point;

Thence North 89°20'34" West, 116.27 feet to an angle point;

Thence South 00°39'26" West, 24.75 feet to the beginning of a 189.69-foot radius non-tangent curve to the left;

Thence along the arc of said 189.69-foot radius curve to the left, through a central angle of 14°18'13" (the long chord of which bears South 16°27'15" East, 47.23 feet) an arc distance of 47.35 feet to the beginning of a 175.00-foot radius compound curve to the left;

Thence along the arc of said 175.00-foot radius compound curve to the left, through a central angle of 22°53'53" (the long chord of which bears South 38°35'49" East, 69.47 feet) an arc distance of 69.94 feet to the beginning of a 1010.00-foot radius reverse curve to the right;

Thence along the arc of said 1010.00-foot radius reverse curve to the right, through a central angle of 15°19'14" (the long chord of which bears South 42°27'29" East, 269.26 feet) an arc distance of 270.07 feet to a point;

Thence North 71°08'54" East, 12.49 feet to the beginning of a 7.00-foot radius curve to the right;

Thence along the arc of said 7.00-foot radius curve to the right, through a central angle of 86°21'00" (The long chord of which bears South 65°40'36" East, 9.58 feet) an arc distance of 10.55 feet to a point of tangency;

Thence South 22°30'06" East, 5.04 feet to the beginning of a 7.00-foot radius curve to the right;

Thence along the arc of said 7.00-foot radius curve to the right, through a central angle of 73°09'31" (The long chord of which bears South 14°04'40" West, 8.34 feet) an arc distance of 8.94 feet to a point;

Thence South 33°25'21" East, 131.26 feet to an angle point;

Thence North 79°03'15" East, 19.48 feet to the beginning of a 13.00-foot radius curve to the right;

Thence along the arc of said 13.00-foot radius curve to the right, through a central angle of 34°58'42" (The long chord of which bears South 83°27'24" East, 7.81 feet) an arc distance of 7.94 feet to a point of tangency;

Thence South 65°58'03" East, 8.66 feet to an angle point;

Exhibit A- TCE

Thence North 32°15'12" East, 35.15 feet to an angle point;

Thence South 68°40'28" East, 21.13 feet to a point on the easterly line of that parcel of land conveyed to Tower Mall Properties, LLC, a Washington Limited Liability company as described in Auditor's File Number 5176933;

Thence South 20°37'49" West, along said easterly line, 13.63 feet to an angle point;

Thence South 38°22'29" West, along said easterly line, 62.86 feet to an angle point;

Thence South 36°11'55" West, along said easterly line, 19.29 feet to the **TRUE POINT OF BEGINNING**.

Contains in all 8,304 square feet, more or less.

Together with and/or subject to easements of record as applicable.

See Exhibit Map attached hereto

Exhibit A- TCE

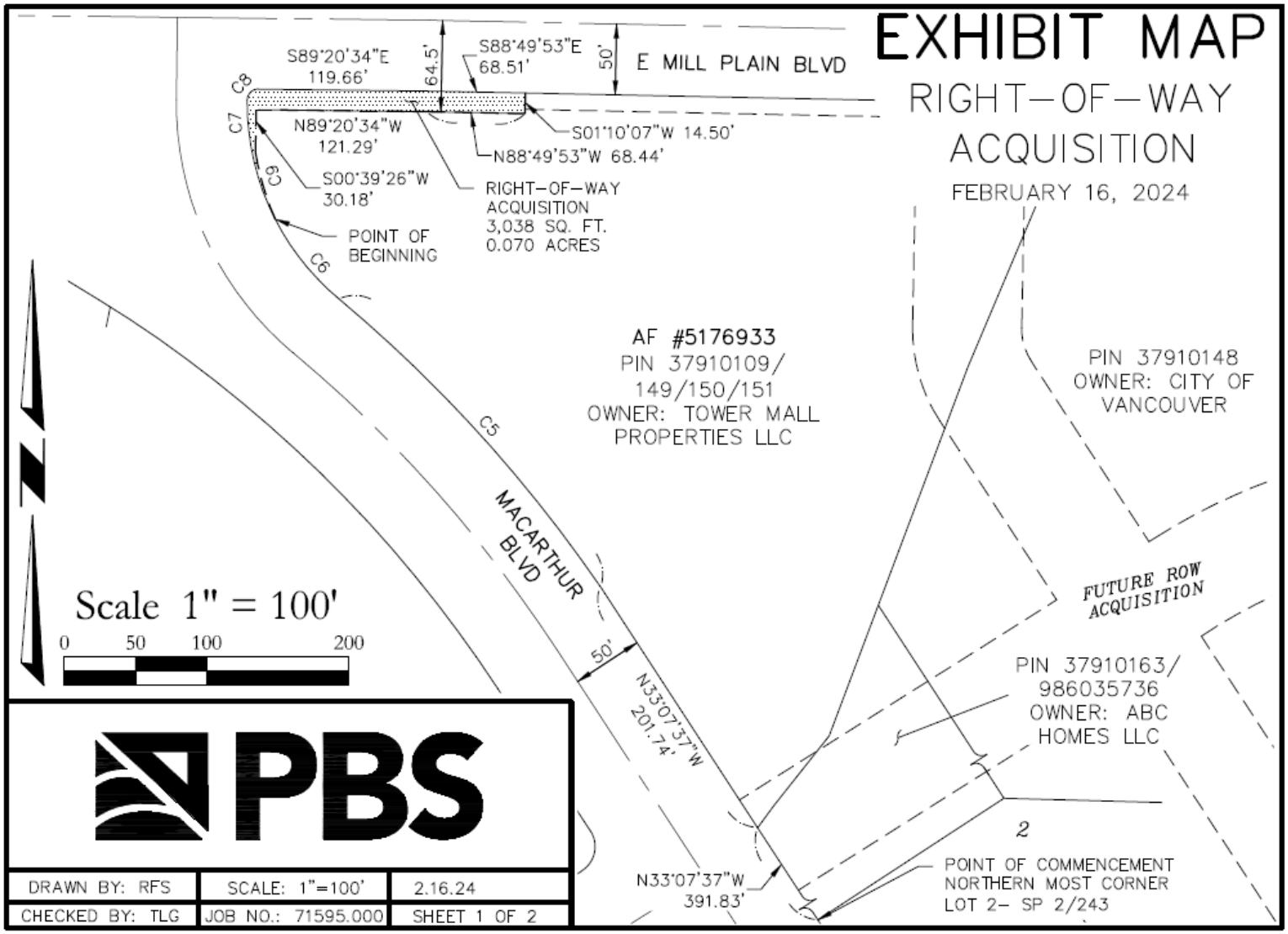


Exhibit B – ROW North

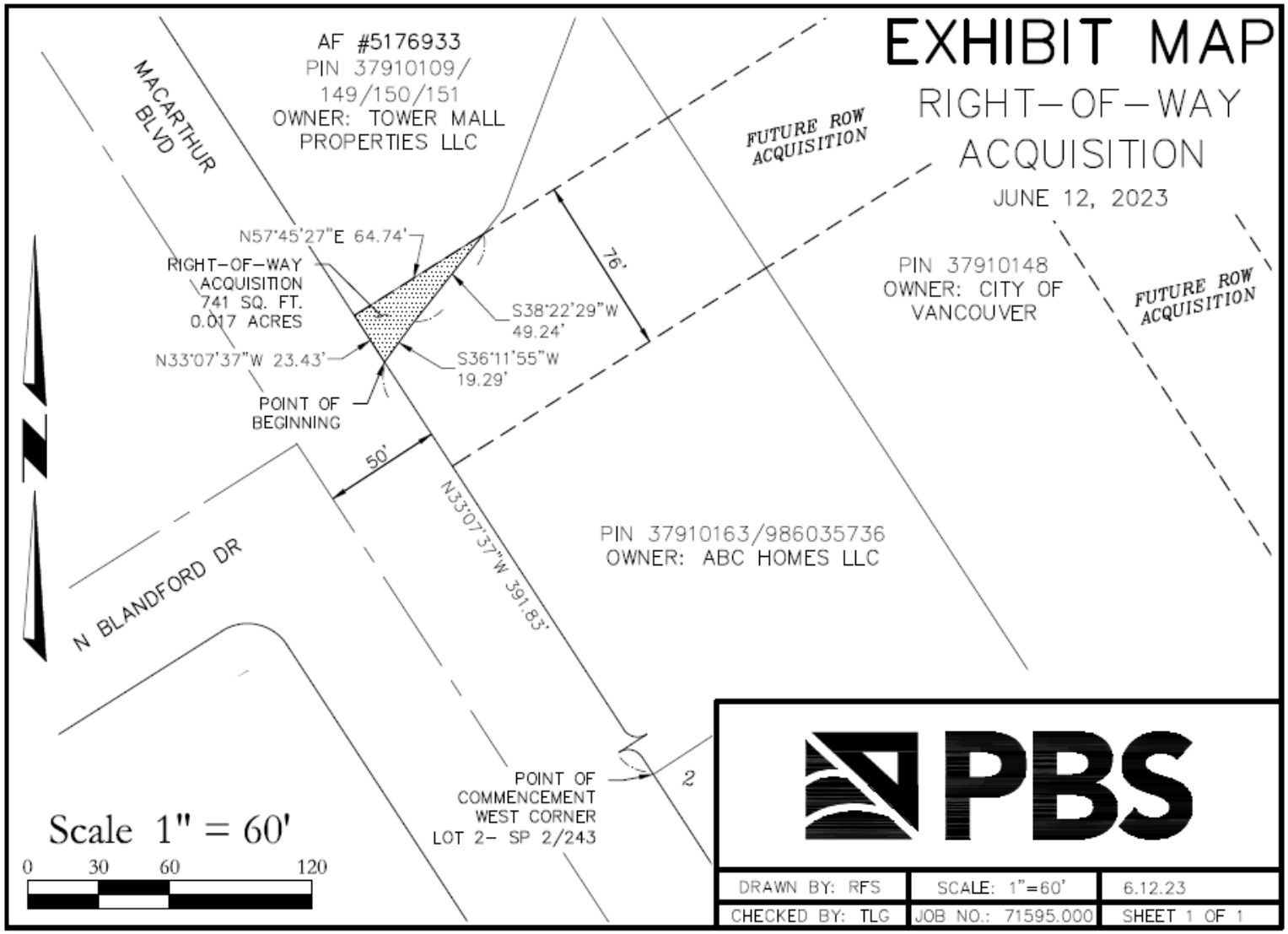


Exhibit B – ROW South

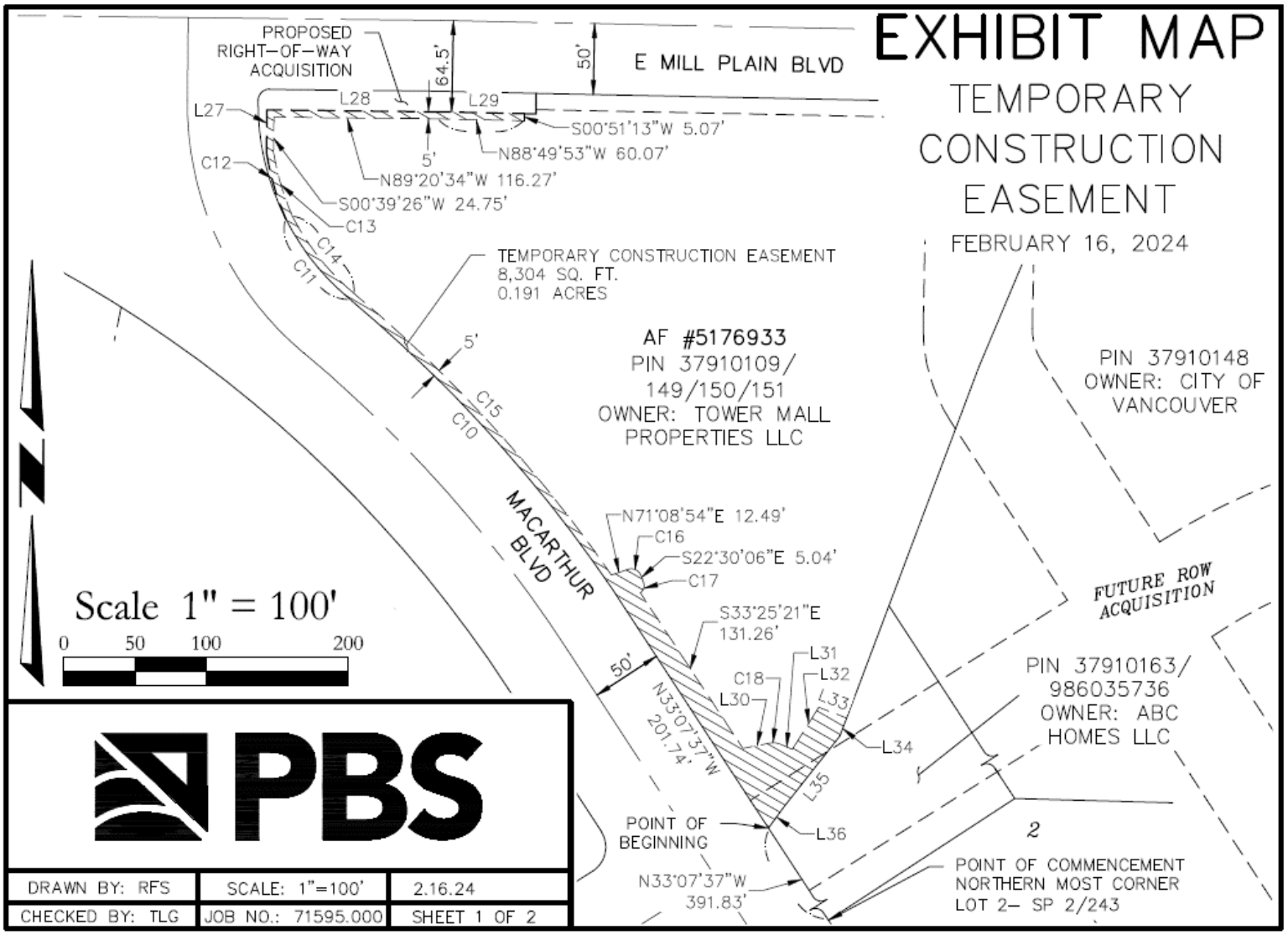


Exhibit B – TCE

EXHIBIT F

Proposed Heights District Redevelopment Project Acquisitions

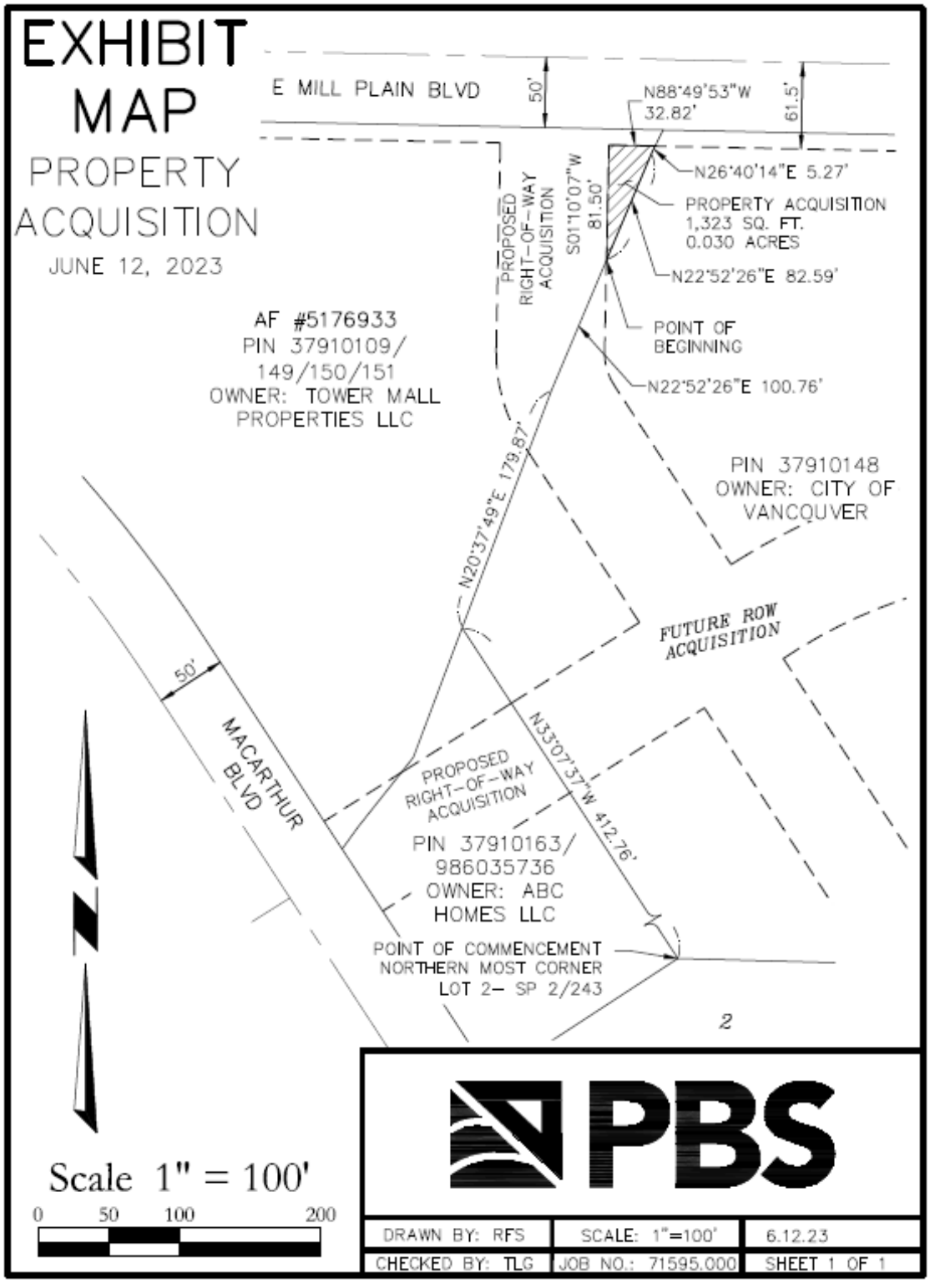
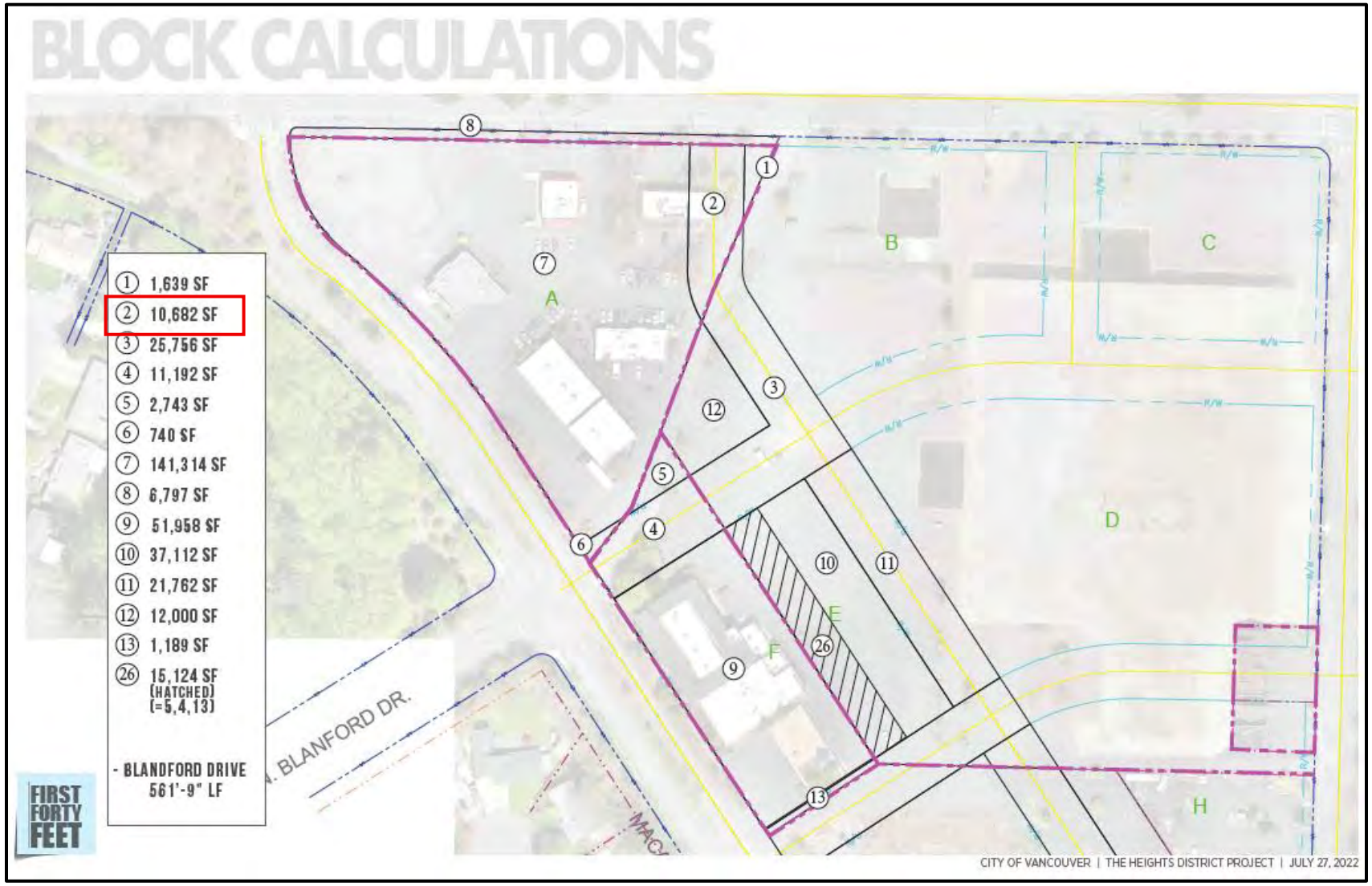
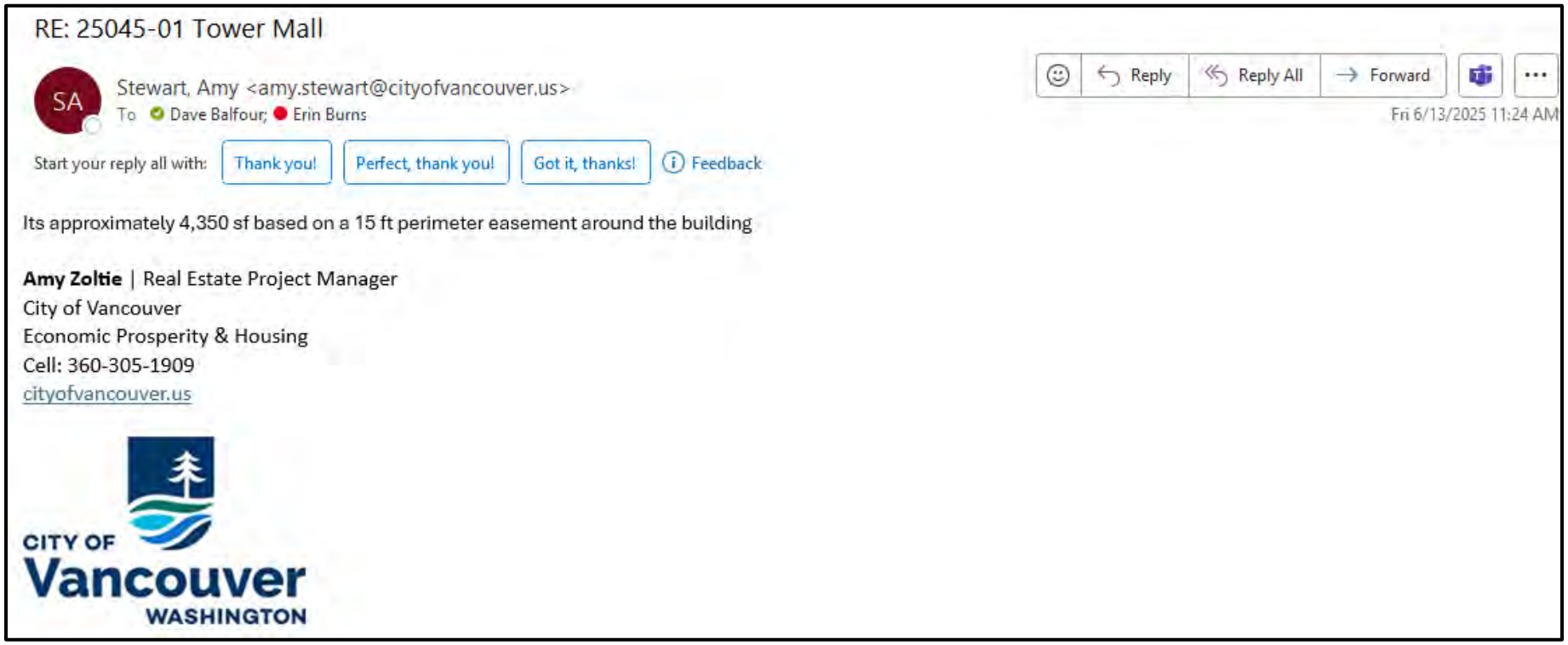


Exhibit B – ROW (Parcel 1)



Block Calculations – ROW (Parcel 2)



Block Calculations – TCE (Parcel 3)

EXHIBIT G

Ground Lease Data

Ground Lease Rate of Return Survey				
Lessee	**Use**	**Location**	**Date**	**ROR/Land**
JS Paving	Industrial	Wilsonville, Oregon	2024	8.7%
General Contractor	Industrial	Wilsonville, Oregon	2024	9.6%
*Available**	*Commercial*	*Vancouver, WA*	*2024*	*8.6%*
*Available**	*Commercial*	*Florence, OR*	*2024*	*6.0%*
*Available**	*Commercial*	*Vancouver, WA*	*2024*	*8.5%*
Kleen Car Wash	Commercial	Vancouver, WA	2024	*5.3%*
DND	Commercial	Ridgefield, WA	2024	*6.9%*
DND	Commercial	Ridgefield, WA	2024	8.9%
DND	Commercial	Vancouver, WA	2024	10.0%
Cornbread Café	Commercial	Vancouver, WA	2024	7.1%
Contractor Yard	Industrial	Carver, OR	2024	7.5%
Cornbread Café	Commercial	Eugene, OR	2024	7.1%
*Available**	*Commercial*	*Kennewick, WA*	*2023*	*6.5%*
Coffee	Commercial	Pasco, WA	2024	6.0%
*Available**	*Commercial*	*Medford, OR*	*2024*	*7.0%*
Multiple / Shopping Center	Commercial	Grants Pass, OR	2024	9.0%
Tow Yard	Commercial	Hillsboro, OR	2024	10.2%
Tow Yard	Commercial	Hillsboro, OR	2024	8.9%
QSR Chik-Fil-A	Commercial	Lake Oswego, OR	2024	4.0%
Landscaping Contractor Yard	Industrial	Hillsboro, OR	2024	12.0%
Amazon Laydown Yard	Industrial	Hillsboro, OR	2024	12.0%
Construction Yard	Industrial	Salem, OR	2024	8.1%
General Contractor	Industrial	King City, OR	2024	12.0%
Trailer Storage	Industrial	Troutdale, OR	2024	10.9%
*Available**	Industrial	Redmond, OR	2025	6.8%
*Available**	Commercial	Bend, OR	2025	6.9%
*Available**	Commercial	Bend, OR	2025	6.5%
*Available**	Industrial	Portland, OR	2025	8.5%
*Available**	Industrial	Portland, OR	2025	8.2%
Industrial	Industrial	McMinnville, OR	2025	11.5%

*Italicized ground lease site is an available listing as of the date of report.

EXHIBIT H

River Maiden Lease Agreement

LEASE AGREEMENT

TOWER MALL PROPERTIES, LLC
a Washington limited liability company

Lessor

and

RIVER MAIDEN COFFEE, LLC
Lessee

Dated: Sept 14, 2017

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LEASE AGREEMENT

THIS LEASE AGREEMENT (herein the "Lease") is made this 18th day of September 2017 between Tower Mall Properties, LLC as Lessor, and River Maiden Coffee, LLC as Lessee. In consideration of the mutual agreements herein contained.

1. **PREMISES**. Lessor hereby leases to Lessee and Lessee leases from Lessor those certain premises, now consisting of approximately 2,500 rentable square feet in a free standing single story building whose common address is known as 5301 E. Mill Plain Blvd. Vancouver, Clark County, Washington (the "Building"), together with all tenant improvements, if any, (collectively, the "Leased Premises") 98661. Lessee will occupy 100% of the total square footage in the Building. The use of the Premises shall include the use of the parking areas directly in front and behind the building.

2. **TERM**. The term of this Lease shall be for five (5) years commencing January 1, 2018.

3. **OPTIONS TO RENEW**. Lessee shall have the option to renew this Lease for four (4) additional terms of five (5) years. The Base Rent during each Option Term shall increase on the anniversary date of Lease by 3% per annum. To exercise such option(s), Lessee shall provide Lessor at least ninety (90) days advance written notice of its intent to exercise such option(s).

4. **RENT**. Lessee agrees to pay to Lessor as rental for the Leased Premises the sum per month (such amount, as from time to time adjusted pursuant to paragraph 4 hereof, the "base rent") payable on or before the first day of the first full calendar month of the term hereof and on or before the first day of each calendar month thereafter.

TERM	MONTHLY RENT	ANNUAL RENT	TRIPLE NET
1/1/18 – 12/31/18	$3,333.00	$39,996.00	NNN
1/1/19 – 12/31/19	$3,437.50	$41,250.00	NNN
1/1/20 – 12/31/20	$3,541.00	$42,492.00	NNN
1/1/21 – 12/31/21	$3,646.00	$43,752.00	NNN
1/1/22 – 12/31/22	$3,750.00	$45,000.00	NNN

All rental shall be paid by Lessee to Lessor, in advance, without deduction or offset, in lawful money of the United States of America, to Tower Mall Properties, LLC, c/o The Al Angelo Company 400 East Mill Plain Blvd., Suite 500, Vancouver, WA 98660, or such other place as the Lessor may from time to time designate in writing. Lessee upon execution hereof, shall remit the first month's rent payment to Lessor in the amount of Three Thousand Three Hundred Thirty Three Dollars ($3,333.00).

5. **TENANT IMPROVEMENTS**. Lessor shall provide a Tenant Improvement Allowance of $120,000.00 to assist Lessee in paying for the costs of improving the Premises to be suitable for Lessee's operations. $60,000.00 shall be paid to Lessee upon issuance of Building

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Permit and start of Tenant Improvements. The remaining $60,000.00 shall be paid to Lessee within 30 days of the issuance of the Certificate of Occupancy by the City of Vancouver and opening of business. Tenant and Lessor to confirm there are no liens. Lessee shall submit copies of paid invoices and all applicable lien releases to Lessor. Lessee must provide to Lessor the scope of work and the contractors selected by Lessee must be bonded and insured and to be 'Exhibit B'.

Lessor shall have all mechanical, plumbing and electrical systems in working order.

6. **SECURITY DEPOSIT** . Lessee, upon execution hereof, shall remit a security deposit equal to last month's rent payment to Lessor in the amount of Three Thousand Seven Hundred Fifty Dollars ($3,750.00). SD applied to April 2020 rent + CAM due to COVID19 crisis. KL

7. **USE OF LEASED PREMISES**. Lessor represents and warrants that the Premises is in good condition with all structural and mechanical systems in good working order. The Leased Premises are to be used for coffee retail, bakery and food services. Lessee shall not use the Leased Premises or permit anything to be done in or about the Leased Premises which will in any way conflict with any law, statute, ordinance or governmental rule or regulation now in force or which may hereafter be enacted or promulgated. Lessee shall at its sole cost and expense promptly comply with all laws, statutes, ordinances and governmental rules, regulations or requirements now in force or which may hereafter be in force affecting the Leased Premises and their cleanliness, safety, occupation and use. Lessee shall not do or permit anything to be done in or about the Leased Premises, or bring or keep anything, including, but not limited to highly combustible materials in the Leased Premises that will in any way increase the existing rate of or affect any fire or other insurance upon the Building or any of its contents, or cause the cancellation of any insurance policy covering said Building or any part or its contents. Lessee shall not allow the Leased Premises to be used for any improper, immoral, unlawful or objectionable purpose, nor shall Lessee cause, maintain, or permit any nuisance in, on or about the Leased Premises.

8. **WASTE**. Lessee shall not commit or suffer to be committed any waste in or upon the Leased Premises or the Building.

9. **OTHER ALTERATIONS**. Other alterations, additions or improvements to the structure of the Leased Premises may not be made to the Leased Premises without prior written consent of Lessor and any such alterations, additions or improvements to or of said Leased Premises, except movable furniture and trade fixtures, shall at once become a part of the realty and belong to Lessor. In the event Lessor consents to the making of such alterations, additions or improvements, the same shall be made by Lessee at Lessee's sole expense and any contractor or person elected by Lessee to make the same must first be approved of in writing by Lessor, which consent shall not be unreasonably withheld.

10. **FIXTURES**. Lessee may, upon written consent of Lessor, install trade fixtures, machinery or other trade equipment in conformance with the ordinances Clark County or the State of Washington, and the same may be removed upon the termination of this Lease and conditions of this Lease, and provided that Lessee repairs any damage to the Leased Premises or the Building caused by such removal.

11. ACCEPTANCE AND SURRENDER OF LEASED PREMISES. Prior to taking possession, Lessee shall examine the Leased Premises to insure that the same "as is" being in good, sanitary order, condition and repair and as fit for the use Lessee intends for the Leased Premises. Lessee further agrees upon the expiration of the term of this Lease or sooner termination hereof to surrender the Leased Premises in the same condition as received, cleaned, ordinary wear and tear and damage by fire, earthquake, act of God, or the elements alone excepted.

12. BUILDING UTILITIES. The Lessee shall pay all natural gas, sanitary sewer, water, electricity, garbage and recycle or other utilities or services used upon or furnished to the Building during the term of the Lease.

13. FIRE AND EXTENDED COVERAGE INSURANCE. Lessor shall keep the main shell and interior improvements of the Building insured, for the full insurable replacement value, in its name, against loss by fire, vandalism and malicious mischief and all other causes covered by extended coverage endorsements, including boiler and machinery and building ordinance coverage.

Lessee shall pay to Lessor, within 30 days after demand by Lessor, which demand shall be accompanied by a copy of any bill for such insurance, Lessee's portion of all premiums for the insurance for the Building. In the event that Lessee shall fail to pay its portion of such insurance premiums within thirty (30) days, Lessor may advance such payment for Lessee and Lessee shall, upon demand, repay to Lessor such amount, with interest from the date of advance at the rate of twelve percent (12%) per annum, and failure to repay such an advance shall constitute a default hereunder.

Lessee shall, at its sole cost and expense, comply with any and all requirements, pertaining to the Leased Premises, of any insurance organization or company, necessary for the maintenance of such insurance, covering the Leased Premises.

14. INSURANCE ON LESSEE'S POSSESSIONS. Lessee shall maintain in full force and effect on all of its fixtures and equipment in the Leased Premises a policy or policies of fire and extended coverage insurance with standard coverage endorsements to the extent of at least 80% of their insurable value. During the term of this Lease the proceeds from any such policy or policies of insurance shall be used for the repair or replacement of the fixtures and equipment so insured. Lessor shall have no interest in the insurance upon Lessee's equipment and fixtures and will sign all documents necessary or proper in connection with the settlement of any claim or loss by Lessee. Lessor will not carry insurance on Lessee's possessions during the term of this Lease. Insurance on Lessee's fixtures and equipment shall be Lessee's sole responsibility. Lessee shall furnish Lessor with a certificate of such policy and whenever required shall satisfy Lessor that such policy is in full force and effect within 30 days of the commencement of this Lease.

15. LIABILITY INSURANCE. Lessee, at its own expense, shall provide and keep in force with companies acceptable to Lessor public liability insurance for the benefit of Lessor and Lessee jointly against liability for bodily injury and property damage (including glass insurance) in the amount of not less than $2,000,000 in respect to injury to or death of one or more than one person in any one occurrence and in the amount of not less than $1,000,000 per occurrence in

respect to damage to property, such limits to be for any greater amounts as may be reasonably indicated by circumstances from time to time existing.

Lessee shall furnish Lessor with a certificate of such policy within 30 days of the commencement date of this Lease and whenever required shall satisfy Lessor that such policy is in full force and effect. Such policy shall name Lessor as an additional insured and shall be primary and noncontributing with any insurance carried by Lessor.

16. INDEMNIFICATION OF LESSOR. With the exception of any claims arising out of the negligence or intentional acts of Lessor, Lessor shall not be liable to Lessee, and Lessee hereby waives all claims against Lessor, for any injury or damage to any person or property in or about the Leased Premises or the Building by or from any cause whatsoever, including but not limited to water leakage from the roof, walls, windows or other portion of the Leased Premises or the Building, or caused by gas, fire, oil, electricity or any cause whatsoever in, on or about the Leased Premises, the Building or any part hereof, except if such injury or damage is caused in part or whole by the act, neglect, fault or omission of any duty with respect to same by Lessor, its agents, servants, employees or invitees.

Lessee shall hold Lessor harmless from and defend Lessor against any and all claims or liabilities for any injury or damage to any person or property whatsoever occurring in, on or about the Leased Premises, the Building, or any part thereof, when such injury or damage was caused in part or in whole by the act, neglect, fault of or omission of any duty with respect to the same by Lessee, its agents, servants, employees or invitees. The obligations of Lessee under this section arising by reason of any occurrence taking place during the term of this Lease shall survive any termination of this Lease.

Lessor shall hold Lessee harmless from and defend Lessee against any and all claims or liabilities for any injury or damage to any person or property whatsoever occurring in, on or about the Leased Premises, the Building, any part thereof, when such injury or damage was caused in part or in whole by the act, neglect, fault of or omission of any duty with respect to the same by Lessor, its agents, servants, employees or invitees. The obligations of Lessor under this section arising by reason of any occurrence taking place during the term of this Lease shall survive any termination of this Lease.

17. TAXES AND ASSESSMENTS. Lessee shall be liable for the Leased Premises's property taxes, and assessments, including interest on account thereof, which may be levied, imposed or assessed upon or against the Leased Premises or the improvements thereon by Clark County or any other governmental or quasi-governmental authority or body during the term of this Lease. Lessee shall pay within 30 days after demand by Lessor, accompanied by a copy of any tax statement or other evidence of assessment or charge. In the event that Lessee shall fail to pay its portion of such taxes, rates, charges and assessments within thirty (30) days, Lessor may advance such payment for Lessee and Lessee shall, upon demand, repay to Lessor such amount, with interest from the date of advance at the rate of twelve percent (12%) per annum, and failure to repay such an advance shall constitute a default hereunder.

18. PERSONAL PROPERTY TAXES. During the term hereof, Lessee shall pay before delinquency any and all taxes, assessments, license fees, and public charges levied, assessed

or imposed and which become payable during the term of the Lease upon Lessee's fixtures, furniture, appliances and personal property installed or located in the Leased Premises. If any such taxes on Lessee's personal property or trade fixtures are levied against Lessor or Lessor's property and if Lessor pays the same, which Lessor shall have the right to do regardless of the validity of such levy, Lessee, upon demand shall repay to Lessor the taxes so levied against Lessor. In the event that Lessee shall fail to pay such taxes, assessments, license fees and public charges within thirty (30) days, Lessor may advance such payment for Lessee and Lessee shall, upon demand, repay to Lessor such amount, with interest from the date of advance at the rate of twelve percent (12%) per annum, and failure to repay such an advance shall constitute a default hereunder.

19. **UPKEEP OF THE LEASED PREMISES.** Except as otherwise provided herein, Lessee shall at Lessee's sole cost and expense keep the interior of Leased Premises and every part thereof in good condition and repair (damage thereto by fire, earthquake, act of God or the elements excepted), and Lessee hereby waives all rights to make repairs at the expense of Lessor as provided by any law, statute or ordinance now or hereafter in effect. Without limiting the foregoing, Lessee's obligation to maintain the Leased Premises shall specifically include maintenance and repair of any light bulbs, windows and coverings and any other tenant improvements included within the Leased Premises.

Upon occupancy, in addition to direct expenses such as electricity, natural gas and telephone, which will be paid by Lessee, Lessee will pay on a monthly basis, one-twelfth of its estimated share of the project's common expenses, including property tax, building insurance, maintenance, management and common utilities. This amount is adjusted at year's end and subject to change depending upon assessed values, etc. Lessee's share of costs at the beginning of the Lease term are estimated at $625.00 ($3.00 SF) per month.

20. **UPKEEP OF BUILDINGS.** During the term hereof, Lessor shall make arrangements for the maintenance and upkeep, but not replacement, of the exterior walls, roof (including gutters and downspouts), foundation of the Building, and the sidewalks and parking area adjacent thereto. Unless, such costs are due to preexisting conditions or Lessor's failure to maintain as provided herein, the cost of all such maintenance shall be borne 100% by Lessee.

21. **SIGNS.** All signage shall be approved by Lessor which approval shall not be unreasonably withheld or delayed and subject to City Codes. Lessee shall be provided use of all existing building and property signage including the exterior free standing monument sign adjacent to the building and any other available building signage as allowed by local jurisdiction.

22. **OVERLOADING OF FLOORS.** Lessor represents and warrants that the structural integrity of the Building is sufficient for Lessee's proposed use. The Lessee will not overload the floors of the Leased Premises in such a way as to cause any undue or serious stress or strain upon the Building or any part thereof, and Lessor shall have the right, at any time, to call upon any competent engineer or architect whom the Lessor may choose, to decide whether or not the floors of the Leased Premises, or any part thereof, are being overloaded so as to cause any undue or serious stress or strain on the Building, or any part thereof. The decision of said engineer or architect shall be final and binding upon the Lessee and in the event that the engineer or architect shall decide that in its opinion the stress or strain is such as to endanger or injure the Building or any part thereof, the Lessee agrees immediately to relieve the stress or strain by lightening the load which causes such stress or strain in a manner satisfactory to the Lessor.

23. LIENS. Lessee shall keep the Leased Premises, the Building, free from any liens arising out of any work performed, materials furnished, utility charges or obligations incurred by Lessee.

24. ASSIGNMENT AND SUBLETTING. Lessee shall not assign, transfer, mortgage, pledge, hypothecate or encumber this Lease, or any interest therein, and shall not sublet the Leased Premises or any part thereof, or any right or privilege appurtenant thereto, or permit the use of the Leased Premises by any person or persons other than the Lessee without the prior written consent of Lessor which consent shall not be unreasonably withheld. A consent to one assignment, subletting, occupation or use by any other person shall not be deemed to be a consent to any subsequent assignment, subletting, occupation or use by another person. Any attempted assignment or subletting without such consent shall be void, and shall, at the option of the Lessor, constitute a default under this Lease pursuant to the remedies available to Lessor as described in paragraph 30 herein. Consent by Lessor to any assignment or subletting shall not relieve Lessee from its primary liability under the Lease.

25. INSOLVENCY OF TENANT. Either (a) the appointment of a receiver to take possession of all or substantially all of the assets of Lessee, or (b) a general assignment by Lessee for the benefit of creditors, or (c) any action taken or suffered by Lessee under any insolvency or bankruptcy act, if continued for a period of thirty (30) days, shall constitute a default under this Lease.

26. EVENTS OF DEFAULT. The following shall constitute "Events of Default" under this Lease:

(a) Failure of Lessee to make payments of any installment of base rent, as provided in paragraph 4 hereof, within five (5) days of written demand by Lessor;

(b) Failure of Lessee to pay any other amounts payable by Lessee to Lessor hereunder within any time period specifically provided herein, or, if no time period is provided, within five (5) days of written demand by Lessor; or

(c) Breach by Lessee of any other covenant of this Lease which breach is not cured within thirty (30) days after the giving of written notice of such breach by Lessor to Lessee, provided that additional time reasonably required to cure the matters in default shall be allowed so long as Lessee is diligently pursuing all actions required to cure the matters for which a default is claimed under this subsection.

27. REMEDIES ON DEFAULT. Upon the occurrence of any Event of Default, Lessor, besides other rights and remedies it may have, shall have the right of reentry and may remove all persons and property from the Leased Premises pursuant to legal proceedings or pursuant to any notice provided by law, and may store any such property removed in a public warehouse or elsewhere, at the cost of, and for the account of Lessee. Lessor shall not be liable for any damages caused by any dispossession or removal of persons or property from the Leased Premises pursuant to this paragraph 27.

Further Lessor may either terminate this Lease or may, from time to time, without terminating this Lease, relet the Leased Premises or any part thereof for such term or terms (which may be a term

extending beyond the term of this Lease) and at such rental or rentals and upon such other terms and conditions as Lessor in its sole discretion may deem advisable with the right to make alterations and repairs to the Leased Premises.

Upon such reletting, Lessee shall pay to Lessor, as soon as ascertained, the reasonable cost and expenses incurred by Lessor in such reletting and in making such alterations and repairs to the extent necessary to return the Leased Premises to good leasable condition.

Rentals received by Lessor from such reletting shall be applied: first, to the payment of any indebtedness, other than rent, due hereunder from Lessee to Lessor; second, to the payment of the cost of any alterations or repairs to the Leased Premises necessary to return the Leased Premises to good condition (normal wear and tear excepted) for uses permitted by this Lease; third, to the cost of storing any of Lessee's property left on the Leased Premises at the time of reletting; fourth, to the payment of rent due and unpaid hereunder. The residue, if any, shall be held by Lessor and applied in payment of future rent or damages in the event of termination as the same may become due and payable hereunder and the balance, if any, at the end of the term of this Lease shall be paid to Lessee. Should such rentals received from time to time from such reletting during any month be less than that agreed to be paid during that month by Lessee hereunder, the Lessee shall pay such deficiency to Lessor. Such deficiency shall be calculated and paid monthly.

No such reentry or taking possession of the Leased Premises by Lessor shall be construed as an election on its part to terminate this Lease unless a written notice of such intention be given to Lessee or unless the termination thereof be decreed by a court of competent jurisdiction. Notwithstanding any such reletting without termination, Lessor may at any time thereafter elect to terminate this Lease for such previous breach. No such termination of this Lease shall relieve Lessee of its liabilities and obligations under this Lease, and such liabilities and obligations shall survive any such termination.

In the event of any such termination, whether or not the Leased Premises or any part thereof shall have been relet, Lessor may recover from Lessee all damages Lessor may incur by reason of such termination, specifically including the cost of recovering the Leased Premises and (1) all amounts that would have fallen due as rents between the time of termination of this Lease and the time of the judgment, or other award, plus the costs of all reletting and transfers, plus interest on the balance at the rate of twelve percent (12%) per year; (2) the worth at the time of the judgment or other award, of the amount by which the unpaid rents for the balance of the term exceed the amount of such rental loss that Lessee proves could be reasonably avoided; and (3) any other amount necessary to compensate Lessor for all detriment proximately caused by Lessee's failure to perform its obligations under this Lease or which in the ordinary course would be likely to result therefrom.

28. DAMAGE OR DESTRUCTION. In the event the Building is destroyed or damaged by fire, earthquake or other casualty to such an extent as to render the Leased Premises untenantable in whole or in substantial part, it shall be optional with the Lessor to repair or rebuild the same, and in the meantime the rent shall be abated in the same proportion as the untenantable portion of the Leased Premises bears to the whole thereof. Unless the Lessor, within 30 days after the happening of any such damage or casualty, shall notify the Lessee of its election to restore said premises, this Lease shall thereupon terminate and end.

In the event the Building shall be damaged or destroyed by any such casualty (even though the Leased Premises shall not be damaged thereby) to such extent that in the opinion of Lessor it shall not be profitable to repair or rebuild, then Lessor may terminate this Lease by notifying Lessee of its election to do so within 30 days of the occurrence of the casualty.

29. EMINENT DOMAIN. If the whole or any part of the Leased Premises, the Building shall be acquired or condemned by eminent domain for any public or quasi-public use or purpose, the term of this Lease shall, at the option of Lessor, cease and terminate from the day of title vesting in such proceeding. In no event shall Lessee have any claim or interest in or to any award of damages for such taking whether or not this Lease be terminated as herein provided except that Lessee shall be entitled to receive any award for moving expenses, tenant improvements installed by Lessee and personal property installed by Lessee and taken in condemnation.

30. WARRANTY OF QUIET ENJOYMENT. Lessor agrees that as long as Lessee is not in default under the terms of this Lease, Lessee shall at all times during the term of this Lease have the right to the undisturbed possession of the Leased Premises.

31. FITNESS FOR USE. Lessor represents and warrants that the Building is zoned for retail use.

32. ENTRY BY LESSOR. Lessor reserves and shall at any reasonable time, within twenty-four (24) prior written notice, have the right to enter the Leased Premises for the purpose of examining the condition thereof, to submit the Leased Premises to prospective purchasers or tenants, to post notices of nonresponsibility, and to alter, improve or repair the Leased Premises and any portion of the Building of which the Leased Premises are a part, without abatement of rent and may for that purpose erect scaffolding and other necessary structures where reasonably required by the character of the work to be performed, always providing the entrance to the Leased Premises shall not be blocked thereby, and further providing that the business of Lessee shall not be interfered with unreasonably. Such entry to the Leased Premises obtained by the Lessor shall not under any circumstances be construed or deemed to be a forcible or unlawful entry into, or a detainer of, the Leased Premises, or an eviction of Lessee from the Leased Premises or any portion thereof. Without limiting the foregoing, during the period of 90 days prior to the termination of said Lease, Lessor may post on the Leased Premises or in the windows thereof signs of moderate size notifying the public that the premises are "For Rent" or "For Lease."

33. SUBORDINATION. Lessor shall have the absolute right to sell, transfer, assign and encumber its interest in this Lease and its estate in the Leased Premises, the Building, or any part thereof, and to delegate all or any portion of its obligations hereunder, from time to time as it sees fit, without obtaining any approval from Lessee.

This Lease shall be subject and subordinate to any encumbrance and to any extensions or renewals thereof which are now, or may hereafter be placed by Lessor, upon the whole or any part of the Building and which includes the Leased Premises. From time to time the Lessee shall execute and deliver any instrument (including but not limited to subordination, attornment, estoppel, etc.) which may be reasonably required by the Lessor in confirmation of such subordination promptly upon the Lessor's request, and without expense to the Lessor; provided, however, that any such subordination instrument shall provide that so long as the Lessee is not in default in the payment

of rent or in the performance of any of the covenants, terms and conditions of the Lease, Lessee's possession of the Leased Premises and the Lessee's rights and privileges under the Lease or any renewal thereof shall not be diminished or interfered with by the secured party under such encumbrance.

34. SALE BY LESSOR. In the event of a sale or a conveyance by Lessor of the Building containing the Leased Premises, the same shall operate to release Lessor from any future liability upon any of the covenants or conditions, express or implied, herein contained in favor of Lessee, and in such event Lessee agrees to look solely to the responsibility of the successor in interest of Lessor in and to this Lease. Lessee agrees to attorn to the purchaser or assignee, and Lessee further agrees to execute estoppel certificates, a letter of attornment or other documents as required by Lessor in connection with such sale, provided, however, that so long as the Lessee is not in default in the payment of rent or in the performance of any of the covenants, terms and conditions of the Lease, Lessee's possession of the Leased Premises and the Lessee's rights and privileges under the Lease or any renewal thereof shall not be diminished or interfered with by the successor in interest of Lessor in and to this Lease.

35. FORECLOSURE. In the event that Lessor assigns or encumbers its interest or estate for security purposes and such assignment or encumbrance is "foreclosed" for any reason and Lessor's interest or estate is sold as upon execution in the manner provided by law or Lessor's interest or estate is sold at public or private sale by the secured party, Lessee shall be bound to the purchaser at such sale under all of the covenants, terms and conditions of this Lease for the balance of such term hereof remaining with the same force and effect as if such purchaser was the Lessor under the Lease and Lessee hereby attorns to such purchaser as its landlord, such attornment to be effective and self-operative without the execution of any further instrument on the part of either of the parties hereto immediately upon such purchaser succeeding to the interest or estate of Lessor. If during the pendency of foreclosure proceedings or otherwise, there is appointed by the court a receiver for the property of which the Leased Premises are a part, Lessee hereby attorns to the receiver as its landlord during the pendency of such foreclosure proceeding, such attornment to be effective and self-operative without the execution of any further instrument on the part of either of the parties hereto immediately upon the appointment of the receiver and its qualification as such.

36. HOLDING OVER. If (without execution of a new lease or written extension) Lessee shall hold over after the expiration of the term of this Lease, Lessee shall be deemed to be occupying the Leased Premises as a tenant from month to month, which tenancy may be terminated as provided by law. During such tenancy Lessee agrees to pay Lessor one hundred fifty (150%) percent of the then prevailing rental paid by Lessee at the expiration of the term of this Lease pursuant to all the provisions of paragraphs 4 hereof, unless a different rate is agreed upon in writing by both parties, and to be bound by all of the terms, covenants and conditions as herein specified, so far as applicable.

37. NONMERGER. The voluntary or other surrender of this Lease by Lessee, or a mutual cancellation thereof, shall not work a merger, and shall, at the option of the Lessor, terminate all or any existing subleases or subtenancies, or may, at the option of Lessor, operate as an assignment to it of any or all such subleases or subtenancies.

38. ATTORNEYS FEES. In the event of any action or proceeding brought by either party against the other under this Lease, the prevailing party shall be entitled to recover for the fees of its attorneys in such action or proceeding such amount as the court may adjudge reasonable as attorneys fees. Should Lessor be named as a defendant in any suit brought against Lessee in connection with or arising out of Lessee's occupancy hereunder, Lessee shall pay to Lessor Lessor's costs and expenses incurred in such suit, including reasonable attorneys fees.

39. WAIVER. The waiver by Lessor of any term, covenant, or condition herein contained shall not be deemed to be a waiver of such term, covenant or condition or any subsequent breach of the same or any other term, covenant or condition herein contained. The subsequent acceptance of rent hereunder by Lessor shall not be deemed to be a waiver of any preceding breach by Lessee of any term, covenant or condition of this Lease, other than the failure by Lessee to pay the particular rental so accepted, regardless of Lessor's knowledge of such preceding breach at the time of the acceptance of such rent.

40. NOTICES. All notices and demands which may or are required to be given by either party to the other hereunder shall be in writing and shall be deemed given when deposited in the U.S. mails, certified mail or return receipt requested, postage prepaid and addressed to the parties as follows:

To Lessee: River Maiden Coffee, LLC
5301 E Mill Plain Blvd.
Vancouver, WA 98661

To Lessor: Tower Mall Properties, LLC
Attn: The Al Angelo Company
400 East Mill Plain Blvd., Suite 500
Vancouver, WA 98660

or at such other address or attention such other person as either party may from time to time designate to the other by written notice in the manner provided above.

41. TIME IS OF THE ESSENCE. Time is of the Essence in this Lease an all of its provisions.

42. DEFINED TERMS AND MARGINAL HEADINGS. The words "Lessor" and "Lessee" as used herein shall include the plural as well as the singular. Words used in the masculine gender include the feminine and the neuter. If there is more than one Lessee the obligations hereunder imposed upon Lessee shall be joint and several. The marginal headings and titles to the paragraphs of this Lease are not a part of this Lease and shall have no effect upon the construction or interpretation of any part hereof.

43. SUCCESSORS AND ASSIGNS. All of the covenants, agreements, terms and conditions contained in this Lease shall apply to and be binding upon Lessee and Lessor and their respective heirs, executors, administrators, successors and assigns, subject to the provisions of this Lease as to assignments.

44. ALTERNATIVE TAXES. If during the term of this Lease there is enacted in the State of Washington a real property tax limitation and concurrently therewith, or subsequent thereto, a substitute tax is imposed, which is substantially equivalent to a real property tax or directly related to or measured by ownership or possession of real property, which is intended to provide tax revenue that would otherwise have been provided by the real property taxes, then Lessee shall be obligated to pay a portion of such "substitute" tax as provided in paragraph 18 for taxes and assessments.

45. WAIVER OF SUBROGATION RIGHTS. Neither Lessor nor Lessee shall be liable to the other for loss arising out of damage to or destruction of the Leased Premises, or the Building or improvements of which the Leased Premises are a part or with which they are connected, or the contents of any thereof, when such loss is caused by any of the perils which are or could be included within or insured against by a standard form of fire insurance with extended coverage, including sprinkler leakage insurance, if any. All such claims for any and all loss, however caused, hereby are waived. The absence of liability shall exist whether or not the damage or destruction is caused by the negligence of either Lessor or Lessee or by any of their respective agents, servants or employees. It is the intention and agreement of the Lessor and the Lessee that the rentals reserved by this Lease have been fixed in contemplation that each party shall fully provide its own insurance protection at its own expense, and that each party shall look to its respective insurance carriers for reimbursement of any such loss, and further, that the insurance carriers involved shall not be entitled to subrogation under any circumstances against any party to this Lease. Neither the Lessor nor the Lessee shall have any interest or claim in the other's insurance policy or policies, or the proceeds thereof, unless specifically covered therein as joint assured.

46. PARKING. All parking shall be provided on a non-exclusive, unreserved basis and shall be provided throughout the Lease and any extension thereof, at no cost to Lessee.

47. REGULATIONS. Landlord shall have the right to make and enforce rules and regulations consistent with this Lease for the purposes of regulating access, parking, use of the common areas and promoting safety, order, cleanliness and good service to the Building. Lessee will promptly comply with all such rules and regulations.

48. ABANDONMENT. Lessee shall not vacate or abandon the Leased Premises at any time during the term, and if Lessee shall abandon, vacate or surrender said premises, or be dispossessed by process of law, or otherwise, any personal property belonging to Lessee and left on the Leased Premises shall be deemed to be abandoned.

49. INTEREST AND LATE CHARGES. Rent not paid within ten (10) days after such rent is due shall bear interest from the date due until paid at the rate of twelve percent (12%) per annum. Lessor may at its option impose a late charge of $.04 for each $1.00 of rent payments made more than ten (10) days late in addition to interest and other remedies available for default.

50. PRIOR AGREEMENTS. This Lease is the entire, final, and complete Agreement of the parties pertaining to the lease of the Leased Premises and supersedes and replaces all written and oral agreements heretofore made or existing by and between the parties or their representatives

insofar as the Leased Premises is concerned. This Agreement supersedes any and all prior offers by and between Lessor and Lessee.

51. PERSONAL GUARANTY AND GUARANTORS. Any individual signing this Lease on behalf of Lessee as a principal or officer thereof and/or as a personal guarantor of Lessee, hereby unconditionally and irrevocably guarantees to Lessor the full and faithful performance and payment by Lessee of each and all of its duties and obligations set forth in or arising from this Lease (collectively, "Lessee's Obligations"), including, without limitation, payment of all sums due and owing and any attorney's fees and costs assigned with enforcement of the terms of this Lease, whether prior or subsequent to termination of this Lease ("Guaranty"). Lessor may seek enforcement of this Guaranty at any time and shall not be required to first proceed against Lessee or enforce any other remedy before proceeding against Guarantor(s). This Guaranty (1) is a continuing guaranty, (2) shall survive the signed Guarantor(s), (3) shall bind the respective heirs, administrators, representatives and assigns of the signed Guarantors, (4) may be enforced by or for the benefit of any successor of Lessor, and (5) shall remain in full force and effect until such time as all of the Lessee's Obligations have been paid, performed and/or satisfied in full, including, without limitation, all attorney's fees and costs.

EXECUTED this 14 day of September 2017

LESSEE: **River Maiden Coffee, LLC**

By: _____

Title: Owner

LESSEE: **River Maiden Coffee, LLC**

By: _____

Title: Owner

LESSOR: **Tower Mall Properties, LLC**

By: _____

Title: MANAGING PTR.

State of Washington

County of Clark

On September 18, 2017, CRAIG E ANGELO personally appeared before me,

✓ Who is personally know to me
_____ Whose identity I proved on the basis of _____
_____ Whose identity I proved on the oath/affirmation of _____, a credible witness

to be the signer of the above document, and he/she acknowledged that he/she signed it.

NICOLE KATHRINE KREIG
NOTARY PUBLIC
STATE OF WASHINGTON
COMMISSION EXPIRES
MARCH 2, 2018

Nicole Kreig
Notary Public

CORPORATE/REPRESENTATIVE ACKNOWLEDGEMENT

State of Washington)
)ss.
County of Clark)

On September 14, 2017, Melissa Laymon personally appeared before me,

X who is personally known to me

_____ whose identity I proved on the basis of _____

_____ whose identity I proved on the oath/affirmation of _____
a credible witness

to be the signer of the above document, and he/she acknowledged that he/she signed it with authorization to execute the instrument as the Owner of River Warden Coffee, III.

SALLY WRIGHT NOTARY PUBLIC COMMISSION EXPIRES 2-15-20 STATE OF WASHINGTON

Notary Public

CORPORATE/REPRESENTATIVE ACKNOWLEDGEMENT

State of Washington)
)ss.
County of Clark)

On September 14, 2017, Aaron Elves personally appeared before me,

X who is personally known to me

_____ whose identity I proved on the basis of _____

_____ whose identity I proved on the oath/affirmation of _____
a credible witness

to be the signer of the above document, and he/she acknowledged that he/she signed it with authorization to execute the instrument as the Owner of River Warden Coffee.

SALLY WRIGHT NOTARY PUBLIC COMMISSION EXPIRES 2-15-20 STATE OF WASHINGTON

Notary Public

Exhibit "A"

Personal Guarantee.

Melissa Layman and Aaron Flies, (hereinafter "guarantors") being a partner, officer, shareholder, member or president of **River Maiden Coffee, LLC** acknowledges receipt of good and valuable consideration and does hereby guarantee each and every obligation of Lessee to Lessor (landlord) contained in or arising from the terms and conditions of this Lease Agreement. Further, said guarantors do hereby jointly, severally, and unconditionally guarantee to the terms of this Lease Agreement, and acknowledges that no notice of default need be given to the undersigned guarantors other than as stated in this lease.

Agreed this 14 day of September, 2017.

Melissa Layman
By: Melissa Layman

Melissa Layman
Signature

Aaron J. Flies
By: Aaron Flies

Aaron J. Flies
Signature

ADDENDUM TO LEASE #1

WHEREAS the undersigned, **Tower Mall Properties, LLC,** Lessor, did on the 18th day of September, 2017 enter into an agreement in writing leasing to **River Maiden Coffee, LLC** as Lessee all of the following described real property situated in Clark County, Washington, to-wit:

5301 E. Mill Plain Blvd.
Vancouver, WA 98661

AND WHEREAS said original Lease provided for a term ending December 31st, 2022 with the rent stipulated for the term.

WHEREAS, the Lessee and Lessor have agreed to a Lease extension for Five (5) years as follows:

1. Rental for the period beginning January 1, 2023 through December 31, 2027 shall be as follows:

Period	Monthly Rental	Annual Rental	Lease Type
1/01/23 – 12/31/23	$3,862.50	$46,350.00	NNN
1/01/24 – 12/31/24	$3,978.38	$47,740.56	NNN
1/01/25 – 12/31/25	$4,097.73	$49,172.76	NNN
1/01/26 – 12/31/26	$4,220.66	$50,647.92	NNN
1/01/27 – 12/31/27	$4,347.28	$52,167.36	NNN

2. Lessee shall have the option to renew the lease for Three (3) additional Five (5) year terms.

3. All other terms and conditions of said Lease shall remain the same.

IN WITNESS WHEREOF the parties hereto have hereunto set their hand in duplicate this 28th day of December 2022.

LESSEE: **River Maiden Coffee, LLC**

By: _____

Title: Partner

LESSOR: **Tower Mall Properties, LLC**

By: _____
Craig E. Angelo

Title: **Managing Member**

STATE OF WASHINGTON, County of Clark, ss:

On this 28th day of December, 2022 personally appeared before me a Notary Public the within named **CRAIG E. ANGELO**, the managing member for Tower Mall Properties, LLC who executed the above instrument freely and voluntarily on behalf of said Tower Mall Properties, LLC for the uses and purposes therein contained.

Nicole Kreig
Notary Public for Washington
Residing at Clark County
My Commission Expires: 3/2/26

STATE OF WA, County of Clark, ss:

On this 28th day of December, 2022 personally appeared before me a Notary Public the within named Melissa Layman, the Partner for Kvel Maiden Coffee LLC who executed the above instrument freely and voluntarily on behalf of said Kvel Maiden Coffee LLC and for the uses and purposes therein contained.

Nicole Kreig

Notary Public for WA

Residing at Clark County

My Commission Expires: 3/2/26

NICOLE KREIG
APPOINTMENT EXPIRES March 02, 2026
NOTARY PUBLIC
COMM # 146901
STATE OF WASHINGTON

EXHIBIT I

Appraiser Qualifications

DAVID E. BALFOUR, MAI
The Valuation Group
Real Estate Valuation Services

Dave@thevalue-group.com
503-330-8697

TVG THE VALUATION GROUP

David E. Balfour, MAI is a Certified General Appraiser and owner of The Valuation Group (a subsidiary of Portland Valuation Group Inc.). Since 2012 Mr. Balfour has focused his appraisal practice primarily upon public acquisition and eminent domain work. Mr. Balfour is a licensed appraiser in both Oregon and Washington while being experienced as an expert witness. Mr. Balfour has gained competence in a variety of appraisal assignments such as public acquisitions, eminent domain, federal land acquisitions (Yellow Book), estate planning, litigation support and testimony across multiple property types.

PROFESSIONAL DESIGNATIONS & CREDENTIALS

State of Oregon
Certified General Real Estate Appraiser (Cert. No. C001256)
Oregon Department of Transportation (ODOT) Qualified Appraiser
Oregon Real Estate Broker Pre-License Training

State of Washington
Certified General Real Estate Appraiser (Cert. No. 1102402)
Washington Department of Transportation (WSDOT) Qualified Appraiser and Review Appraiser

State of Idaho
Certified General Real Estate Appraiser (Cert. No. 5612)
Idaho Department of Transportation (ITD) Qualified Appraiser and Review Appraiser

MEMBERSHIPS AND AFFILIATIONS

Member of The Appraisal Institute
International Right of Way Association
American Public Works Association
American Society of Farm Managers & Rural Appraisers
Portland Business Journal 40 Under 40

EDUCATION

Linfield College – McMinnville, Oregon – *Bachelor of Science in Finance* – 2012

PROFESSIONAL SERVICES

Appraisal & Appraisal Review
Market Research/Development Land Site Analysis
Expert Witness Testimony/Litigation Support (condemnation & private party)

PROFESSIONAL CONTRIBUTIONS

Greater Oregon Chapter of the Appraisal Institute: Outstanding Candidate Award – 2016
IRWA Chapter 3 Professional of the Year Award - 2019
IRWA Chapter 3 President – 2021-2022
Seminar Group – 2019 & 2021 Faculty for the Oregon Eminent Domain Seminar
APWA Presenter – 2023 Faculty for the APWA Spring 2023 Seminar

STATE OF WASHINGTON

DEPARTMENT OF LICENSING - BUSINESS AND PROFESSIONS DIVISION

THIS CERTIFIES THE PERSON OR BUSINESS NAMED BELOW IS AUTHORIZED AS A

WASHINGTON STATE DEPARTMENT OF LICENSING

CERTIFIED GENERAL REAL ESTATE APPRAISER

DAVID ENGELDINGER BALFOUR

1102402	09/13/2016	10/17/2025
License Number	Issue Date	Expiration Date

Marcus J Glasper, Director

EXHIBIT J

Limiting Conditions and Assumptions

Limiting Conditions and Assumptions

General Assumptions

This appraisal is based on the following general assumptions, except as otherwise noted in the report.

- The title is marketable and free and clear of all liens, encumbrances, encroachments, easements and restrictions. The property is under responsible ownership and competent management and can be utilized at its highest and best economic use.
- There are no existing judgments or pending or threatened litigation that could affect the value of the property.
- There are no hidden or undisclosed conditions of the land or of the improvements that would render the property more or less valuable. Furthermore, there are no environmental regulation violations or actionable conditions.
- The property is in compliance with all applicable building, environmental, zoning, and other federal, state and local laws, regulations and codes.
- All information furnished by others, including proprietary third-party resources, is believed to be reliable, but no warranty is given for its accuracy.

Limiting Conditions

This appraisal is subject to the following limiting conditions, except as otherwise noted in the report.

- The appraiser and client agree that the following mutual limitation of liability is agreed to in consideration of the fees to be charged and the nature of appraiser's services. The appraiser and client agree that to the fullest extent permitted by applicable law, each party's and its personnel's maximum aggregate and joint liability to the other party for claims and causes of action relating the appraiser's services shall be limited to the higher of $25,000 or the total of fees and costs charged by appraiser(s) for the services that are the subject of the claim(s) or cause(s) of action. This limitation of liability extends to all types of claims or causes of action, whether in breach of contract or tort, including without limitation claims/causes of action for negligence, professional negligence or negligent misrepresentation on the part of either party or its personnel, but excluding claims/causes of action for intentionally fraudulent conduct, criminal conduct or intentionally caused injury. The personnel of each party are intended third-party beneficiaries of this limitation of liability. "Personnel," as used in this paragraph, means the respective party's staff, employees, contractors, members, partners and shareholders. Appraiser(s) and client agree that they have each been free to negotiate different terms than stated above or contract with other parties.
- Client shall defend, indemnify and hold harmless, Portland Valuation Group Inc. (DBA as The Valuation Group), its agents, officers and employees from and against any and all claims, demands and judgments (including attorney fees) made or recovered against them arising out of or resulting from Client's (including its employees, agents and subcontractors) negligent act or willful misconduct as to this assignment and obligations imposed upon the Client by this relationship. Additionally, Client agrees to defend, indemnify and hold harmless Portland Valuation Group Inc. (DBA as The Valuation Group) from any third party claims regardless of any negligent act by Client.
- The conclusions stated in our appraisal apply only as of the effective date of the appraisal, and no representation is made as to the effect of subsequent events.
- No changes in any federal, state or local laws, regulations or codes are anticipated.

- No environmental impact or hazardous material studies were either requested or made in conjunction with this appraisal, and we reserve the right to revise or rescind any of the value opinions based upon any subsequent environmental impact studies.

- We accept no responsibility for considerations requiring expertise in other fields. Such considerations include, but are not limited to, legal descriptions and other legal matters such as legal title, geologic considerations such as soils and seismic stability, and civil, mechanical, electrical, structural and other engineering and environmental matters.

- The appraisal report shall be considered only in its entirety. No part of the appraisal report shall be utilized separately or out of context.

- Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraiser, or any reference to the Appraisal Institute) shall be disseminated through advertising media, public relations media, news media or any other means of communication (including without limitation prospectuses, private offering memoranda and other offering material provided to prospective investors) without the prior written consent of the person signing the report.

- Information, estimates and opinions contained in the report and obtained from third party sources are assumed to be reliable and have not been independently verified.

- If applicable to the assignment, any income and expense estimates contained in the appraisal report are used only for the purpose of estimating value as defined in the appraisal and do not constitute predictions of future operating results.

- No consideration has been given to personal property located on the premises or to the cost of moving or relocating such personal property; only the real property has been considered.

- We have assumed that no extreme fluctuations in economic cycles will occur subsequent to the valuation date.

- The Americans with Disabilities Act (ADA) became effective January 26, 1992. We have not made a specific survey or analysis of the property to determine whether the physical aspects of the improvements meet the ADA accessibility guidelines. We claim no expertise in ADA issues, and render no opinion regarding compliance of the subject with ADA regulations. Inasmuch as compliance matches each owner's financial ability with the cost to cure the non-conforming physical characteristics of a property, a specific study of both the owner's financial ability and the cost to cure any deficiencies would be needed for the Department of Justice to determine compliance.

- Publicly available flood maps noted in the appraisal report have been relied upon as to the subject property being located in an identified Special Flood Hazard Area. However, we are not qualified to detect such areas and therefore do not guarantee such determinations. The presence of flood plain areas and/or wetlands may affect the value of the property, and the value conclusion is predicated on the assumption that wetlands are non-existent or minimal.

- The appraiser is not a building or environmental inspector. The appraiser does not guarantee that the subject property is free of defects or environmental problems. Mold may be present in the subject property and a professional inspection is recommended.

- Portland Valuation Group Inc. (DBA as The Valuation Group), an independently owned and operated company, has prepared the appraisal for the specific purpose stated in the report. The intended use of the appraisal is stated in the Description of Scope of Work section of the report. The use of the appraisal report by anyone other than the Client is prohibited except as otherwise provided.

- The Bylaws and Regulations of the Appraisal Institute require each Member and Candidate to control the use and distribution of each appraisal report signed by such Member or Candidate; except as hereinafter provided, the client may distribute copies of this appraisal report in its entirety to such third parties as they may elect; however, selected portions of this appraisal report shall not be given to third parties without the prior written consent of the signatories of this appraisal report. Neither all nor any part of this appraisal report shall be disseminated to the general public by the use of advertising media, public relations, news, sales or other media for public communication without the prior written consent of the appraiser.

- The appraiser(s) may not divulge the material (evaluation) contents of the report, analytical findings or conclusions, or give a copy of the report to anyone other than the client or his designee as specified in writing, except as may be required by the Appraisal Institute as they may request in confidence for ethics enforcement, or by a court of law or body with the power of subpoena.

- The appraisal is based on the premise that there is full compliance with all applicable federal, state and local environmental regulations and laws unless otherwise stated in the report; further, that all applicable zoning, building, and use regulations and restrictions of all types have been complied with unless otherwise stated in the report. Further, it is assumed that all required licenses, consents, permits or other legislative or administrative authority, local, state, federal and/or private entity or organization have been, or can be, obtained or renewed for any use considered in the value estimate.

- The distribution of the total valuation in this report between land and improvements applies only under the existing program of utilization. The separate valuations for land and building must not be used in conjunction with any other appraisal and are invalid if so used.

- The market value estimated, and the costs used, are as of the date of value estimate. All dollar amounts are based on the purchasing power and price of the dollar as of the date of the value estimate.

After recordation return to:

City of Vancouver
PO Box 1995
Vancouver, WA 98668
ATTN:

STATUTORY WARRANTY DEED

Grantor: Tower Mall Properties LLC
c/o The Al Angelo Company
400 E Mill Plain Blvd. Floor (5)
Vancouver, WA 98660

Grantee: City of Vancouver, a Washington municipal corporation

Property: A portion of property located at: 5301 E. Mill Palin Boulevard, Vancouver, WA 98661

(Full legal description on Exhibit A, attached hereto)

Abbreviated Legal: A portion of property located at: 185 JOHN W NYE DLC .65A

Assessor's Tax Parcel Number: 37910149

The Grantor, Tower Mall Properties LLC, for and in consideration of Ten and No One Hundredths Dollars ($10.00) and other good and valuable consideration**,** in hand paid, conveys and warrants to the Grantee, the City of Vancouver, a Washington municipal corporation, the real property described on the attached Exhibit A, subject to the permitted exceptions described on attached Exhibit B, together will all improvements located thereon, all rights, benefits, privileges, easements, tenements, hereditaments and appurtenances there unto belonging or in any way pertaining thereto.

Dated this _____ day of _____, 20____.

GRANTOR:

Tower Mall Properties LLC
c/o The Al Angelo Company
400 E Mill Plain Blvd. Floor (5)
Vancouver, WA 98660

Signed: [DO NOT SIGN – EXHIBIT ONLY]_____
Name:_____

NOTARY ACKNOWLEDGMENT

STATE OF WASHINGTON }
}ss.
COUNTY OF CLARK }

On _____, 2025, before me personally appeared Tower Mall Properties LLC as GRANTOR, and acknowledged said instrument to be the free and voluntary act and deed of said individual, for the uses and purposes therein mentioned, and on oath stated that he was the individual authorized signatory of said instrument as Grantor.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

Signature:_____

Name (Print):_____

NOTARY PUBLIC in and for the State of _____, residing at_____
My appointment expires:_____

STATUTORY WARRANTY DEED

EXHIBIT A

LEGAL DESCRIPTION

Tower Mall Properties LLC
Proposed Acquisition
Legal Description

Being a portion of that parcel of land conveyed to Tower Mall Properties, LLC, a Washington Limited Liability company as described in Auditor's File Number 5176933, Clark County Deed Records, and being a portion of the John Nye Donation Land Claim located in the Southwest one-quarter of Section 30, Township 2 North, Range 2 East of the Willamette Meridian, City of Vancouver, Clark County, Washington and being more particularly described as follows:

COMMENCING FROM the Northerly most corner of Lot 2 of that Short Plat recorded in Book 2, Page 243, Short Plat Records of Clark County, Washington;

Thence North 33°07'37" West, along the Easterly line of Parcel II conveyed to ABC Homes, LLC, a Washington Limited Liability company as described in Auditor's File Number 4807596, 476.66 feet to the easterly line of said Auditor's File Number 5176933;

Thence North 20°37'49" East, along said easterly line of said Auditor's File Number 5176933, 179.87 feet to an angle point in said easterly line;

Thence continuing along said easterly line North 22°52'26" East, 100.76 feet to the **TRUE POINT OF BEGINNING**;

Thence North 01°10'07" East, 93.00 feet to a point on the southerly Right-of-Way line of East Mill Plain Boulevard;

Thence South 88°49'53" East, along said southerly Right-of-Way line, 38.30 feet to the easterly line of said Auditor's File Number 5176933;

Thence South 26°40'14" West, along said easterly line, 18.02 feet to an angle point;

Thence South 22°52'26" West, 82.59 feet to the **TRUE POINT OF BEGINNING**.

Contains in all 1,732 square feet, more or less.

See Exhibit Map attached hereto

9.19.25

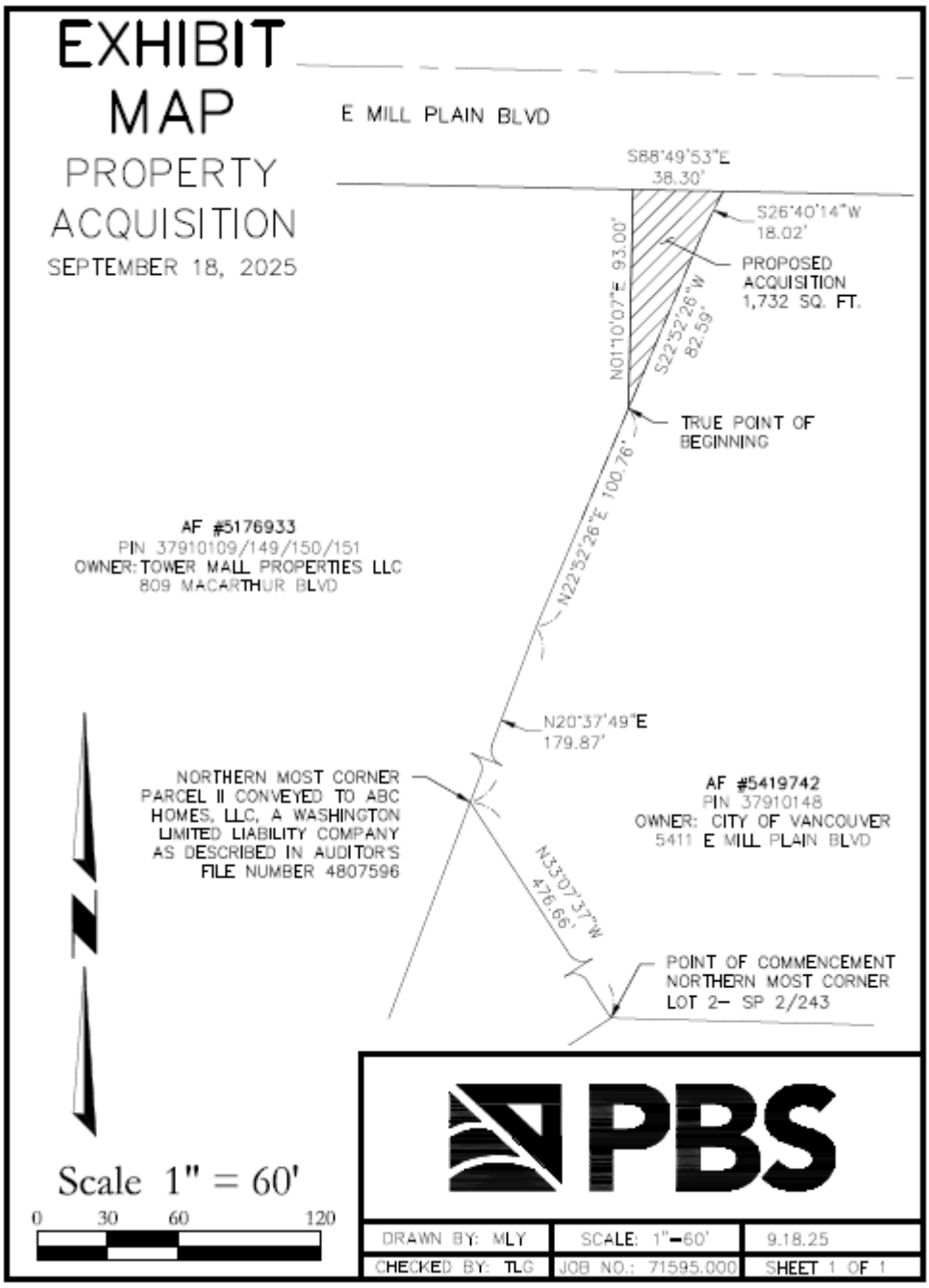


EXHIBIT MAP
PROPERTY ACQUISITION
SEPTEMBER 18, 2025
E MILL PLAIN BLVD
S88°49'53"E 38.30'
S26°40'14"W 18.02'
PROPOSED ACQUISITION 1,732 SQ. FT.
N01°10'07"E 93.00'
S22°52'26"W 82.59'
TRUE POINT OF BEGINNING
N22°52'26"E 100.76'
N20°37'49"E 179.87'
AF #5176933
PIN 37910109/149/150/151
OWNER: TOWER MALL PROPERTIES LLC
809 MACARTHUR BLVD
NORTHERN MOST CORNER PARCEL II CONVEYED TO ABC HOMES, LLC, A WASHINGTON LIMITED LIABILITY COMPANY AS DESCRIBED IN AUDITOR'S FILE NUMBER 4807596
AF #5419742
PIN 37910148
OWNER: CITY OF VANCOUVER
5411 E MILL PLAIN BLVD
N33°07'37"W 476.66'
POINT OF COMMENCEMENT NORTHERN MOST CORNER LOT 2– SP 2/243
Scale 1" = 60'
0 30 60 120
PBS
DRAWN BY: MLY
SCALE: 1"=60'
9.18.25
CHECKED BY: TLG
JOB NO.: 71595.000
SHEET 1 OF 1

STATUTORY WARRANTY DEED

EXHIBIT B

PERMITTED ENCUMBRANCES

Easement(s) for the purpose(s) shown below and rights incidental thereto as set forth in a document:

In favor of:	PUBLIC UTILITY DISTRICT NO. 1 OF CLARK COUNTY, WASHINGTON
Purpose:	Transmission of electric energy, including communication facilities
Recording Date:	June 16, 1948
Recording No.:	G4023, Volume 446, Page 309

Amended by instrument(s):

Recording Date:	March 16, 1966
Recording No:	G444958

Easement(s) for the purpose(s) shown below and rights incidental thereto as set forth in a document:

In favor of:	The City of Vancouver, Washington
Purpose:	right of way for water line
Recording Date:	September 21, 1964
Recording No.:	G395265

Covenants, conditions, restrictions, recitals, reservations, easements, easement provisions, encroachments, dedications, building setback lines, notes, statements, and other matters, if any, but omitting any covenants or restrictions, if any, including but not limited to those based upon race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law, as set forth on Survey:

Recording No: Survey Book 71, Page 104

Any unrecorded leaseholds, right of vendors and holders of security interests on personal property installed upon the Land and rights of tenants to remove trade fixtures at the expiration of the terms.

AN ORDINANCE repealing Vancouver Ordinance No. M-3927, adopted September 14, 2009 relating to the then-adoption of Vancouver Indigent Defense Standards; providing for approval of updated indigent standards by the City Manager or designee, and providing for an effective date.

Staff Report: 007-26

To: Mayor and City Council
From: City Manager
Date: January 12, 2026

Subject
Public Defense Standards Revision

Key Points

- Ordinance M-3927, approved September 14, 2009, adopted indigent defense standards for the provision of indigent defense services to qualifying individuals through contracts with third-party private attorneys.
- The City has determined it is appropriate to revise its indigent defense standards based on recent Orders by the Washington Supreme Court, and the adoption of updated indigent defense standards by the Washington State Bar Association (WSBA).
- Delegates authority to the City Manager or designee to approve the revised indigent defense standards and future revisions when appropriate.
- The City Manager is prepared to approve replacement Vancouver Indigent Defense Standards contemporaneous with the repeal of Vancouver Ordinance No. M-3927.

Strategic Plan Alignment
High Performing Government – a government that is reliable, fiscally responsible, equitable, and open to compromise

Present Situation
The City has a constitutionally mandated responsibility to provide public defender services for eligible persons who are entitled to representation. Under RCW 10.101.30, the State of Washington requires cities and counties to adopt standards for the delivery of public defense services and within available resources, the City desires to provide the best practical defense services to the City's indigent populations.

On September 14, 2009, City Council adopted Ordinance M-3927 which outlined standards for public defense services. On June 9, 2025, the Washington State Supreme Court adopted new caseload limits for attorneys representing criminal defense clients. These caseload limits, which is 120 (non-weighted) cases per attorney within a 12-month period, will be implemented in a phased approach with full compliance required for 10 years from January 1, 2026. Case weighting is permissible and encouraged. In its revised standards, the City proposes the following weighting system to achieve the required caseload limits:

Public Defense Case Weighting	
Case Points	Case Type
1.5	DUI, Physical Control, Assault 4 — sexual motivation, Communicating with a Minor for Immoral Purposes
1.0	All gross misdemeanors not designated as 1.5 cases
0.5	All misdemeanors not designated as .33 cases
0.33	Driving While License Suspended in the 3rd Degree (DWS 3), any case resolved at first appearance/ arraignment, probation violations, deferred prosecution revocations, any other post-conviction matter

Advantage(s)
Updating the Standards will help the City's contracted attorneys address reductions in (allowed) caseload maximums by implementing a case weighting system that more closely represents time and resources spent on types of misdemeanor cases.

Challenge(s)
Staff will monitor caseloads per the new weighting system and determine whether additional or revised weights will be necessary in the future to address caseload maximum requirements. Availability and capacity of contracted attorneys will likely continue to be a challenge.

Budget Impact
There may be cost savings to the City with the new Standards that include a case weighting system. Based on State requirements that reduce allowable cases/attorney, the City has had to contract with additional attorneys which results in additional administrative cost and, sometimes, higher compensation rates.

Prior Council Review
None

Action Requested
On Monday, January 12, 2026, advance the ordinance to repeal Ordinance No. M-3927, which adopted Indigent Defense Standards in 2009, and authorizes the City Manager or designee to approve revised Indigent Defense Standards, setting the date for the second reading and public hearing for Monday, January 26, 2026.

Staff Contact
Katherine Kelly, Program and Policy Development Manager, katherine.kelly@cityofvancouver.us

Attachments:
1. Ordinance

01/12/26 (Date of First Reading)
01/26/26 (Date of Public Hearing)

ORDINANCE NO. _____

AN ORDINANCE repealing Vancouver Ordinance No. M-3927, adopted September 14, 2009 relating to the then-adoption of Vancouver Indigent Defense Standards; providing for approval of updated indigent standards by the City Manager or designee, and providing for an effective date.

WHEREAS, the City of Vancouver, Washington (City) is a municipal corporation and first-class city of the State of Washington, organized and existing under and by virtue of the Constitution, the general laws of the State of Washington, and the Vancouver Charter; and

WHEREAS, on September 14, 2009, the City Council approved Ordinance No. M-3927, which adopted indigent defense standards for the provision of indigent defense services to qualifying individuals through contracts with third-party private attorneys; and

WHEREAS, based on recent Orders by the Washington Supreme Court, and the adoption of updated indigent defense standards by the Washington State Bar Association (WSBA), the City has determined it appropriate to approve revised indigent defense standards; and

WHEREAS, City Council has determined that delegating authority to the City Manager or designee to approve the revised indigent defense standards and future revisions when appropriate will allow for greater resilience in ensuring that individuals charged with misdemeanor crimes in the City will receive defense services meeting or exceeding adopted state standards; and

WHEREAS, the City Manager is prepared to approve replacement Vancouver Indigent Defense Standards contemporaneous with the repeal of Vancouver Ordinance No. M-3927, including implementation of the WSBA maximum caseload standards, implementation of a new case weighting system that takes into account the complexity of cases for purposes of counting cases under new caseload standards, and that the reduction from the current maximum caseload standard will occur

over a 10-year period consistent with the Emergency Order issued by the Washington Supreme Court June 9, 2025; and

WHEREAS, City Council finds it necessary and in the best interests of the public that Ordinance No. M-3927 be repealed in its entirety.

NOW, THEREFORE,

BE IT ORDAINED BY THE CITY OF VANCOUVER:

Section 1. Repeal of Ordinance No. M-3927. Ordinance No. M-3927, adopted September 14, 2009, relating to the then-adoption of Vancouver Indigent Defense Standards, is repealed in its entirety.

Section 2. Authority of City Manager to Approve New Indigent Defense Standards. The City Manager or designee is authorized to approve and implement new Vancouver Indigent Defense Standards, including future amendments determined necessary or appropriate by the City Manager or designee.

Section 3. Severability. If any section, sentence, clause, or phrase of this Ordinance should be held invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, sentence, clause, or phrase of this Ordinance.

Section 4. Effective Date. This Ordinance shall become effective five days after final passage.

DATE OF FINAL PASSAGE by the Vancouver City Council: January _____, 2026.

SIGNED this _____ day of January, 2026.

Anne McEnery-Ogle, Mayor

Attest:

Natasha Ramras, City Clerk

Approved as to form:

Nena Cook, City Attorney

SUMMARY

ORDINANCE NO. _____

AN ORDINANCE repealing Vancouver Ordinance No. M-3927, adopted September 14, 2009 relating to the then-adoption of Vancouver Indigent Defense Standards; providing for approval of updated indigent standards by the City Manager or designee, and providing for an effective date.

The full text of this Ordinance will be mailed upon request. Contact public records staff at (360) 487-8480, citypdr@cityofvancouver.us, or via Public Records Request -The City of Vancouver, WA.

To: Mayor and City Council
From: City Manager
Date: January 12, 2026

Subject
Approval of the Claim Vouchers

Action Requested
Approve claim vouchers for January 12, 2026.

Attachments:
1. January 12, 2026 Claim Vouchers

VOUCHER APPROVAL

We, the undersigned council members of the City of Vancouver, Clark County, Washington, do hereby certify that the merchandise or services hereinafter specified have been received and that the vouchers listed below are approved for payment in the amount of:

$ 6,503,338.17 this 12th day of January 2026.

MAYOR

COUNCILMEMBER

Cyndi A. Turner Digitally signed by Cyndi A. Turner Date: 2026.01.05 11:38:36 -08'00'

AUDITING OFFICER

COUNCILMEMBER

DATE	INCLUSIVE CHECK NUMBERS	CHECK TOTAL
December 29, 2025 - January 04, 2026	Accounts Payable Checks (see attached)	$ 5,983,224.90
December 29, 2025 - January 04, 2026	Hansen City Payments (see attached)	$ 471,009.94
December 29, 2025 - January 04, 2026	Visa Refunds (see attached)	$ 825.00
December 29, 2025 - January 04, 2026	Payroll Checks (see attached)	$ 48,278.33
TOTAL		$ 6,503,338.17

INVOICE PAYMENTS REPORT

Category	Type	Transaction Reference	Date	Amount	Payee	Memo
Supplier Payment	Check	29221	12/31/2025	18,944.56	Ace Parking Management Inc	
Supplier Payment	Check	29222	12/31/2025	1,557.00	Allcon LLC	
Supplier Payment	Check	29223	12/31/2025	2,663.42	Apex Hydrovac Tools LLC	
Supplier Payment	Check	29224	12/31/2025	14,174.21	Arborscape Ltd Inc	
Supplier Payment	Check	29225	12/31/2025	9,896.79	AT & T Mobility National Accounts LLC - Remit-To: AT & T Mobility	
Supplier Payment	Check	29226	12/31/2025	220.00	AT & T Mobility National Accounts LLC - Remit-To: Legal Demand Center for Law Enforcement	
Supplier Payment	Check	29227	12/31/2025	225.00	AT & T Mobility National Accounts LLC - Remit-To: Legal Demand Center for Law Enforcement	
Supplier Payment	Check	29228	12/31/2025	200.00	AT & T Mobility National Accounts LLC - Remit-To: Legal Demand Center for Law Enforcement	
Supplier Payment	Check	29229	12/31/2025	6,000.00	Blue Tiger Leadership, LLC	
Supplier Payment	Check	29230	12/31/2025	4,546.00	BSK Associates - Remit-To: Supplier BSK Associates	
Supplier Payment	Check	29231	12/31/2025	24,406.91	Cellco Partnership - Remit-To: Cellco - Dallas	
Supplier Payment	Check	29232	12/31/2025	8,548.50	Century West Engineering Corp	
Supplier Payment	Check	29233	12/31/2025	181.13	Cintas	
Supplier Payment	Check	29234	12/31/2025	31,442.40	Clark County - Remit-To: Clark County - Treasurer Vancouver	
Supplier Payment	Check	29235	12/31/2025	123,340.78	Clary Longview LLC	
Supplier Payment	Check	29236	12/31/2025	118.61	Comcast Holdings Corporation - Remit-To: Comcast Business - City of Industry	
Supplier Payment	Check	29237	12/31/2025	19,173.18	Comcast Holdings Corporation - Remit-To: Comcast Holdings Corporation - Philadelphia	
Supplier Payment	Check	29238	12/31/2025	32,184.28	Core and Main LP - Remit-To: Core and Main LP	
Supplier Payment	Check	29239	12/31/2025	7,899.06	Eco Fencing and Decking LLC	
Supplier Payment	Check	29240	12/31/2025	16,422.40	Esix Sportswear	
Supplier Payment	Check	29241	12/31/2025	56.58	Experian Marketing Solutions - Remit-To: Experian - Los Angeles	
Supplier Payment	Check	29242	12/31/2025	518.29	First-Citizens Bank & Trust Company	
Supplier Payment	Check	29243	12/31/2025	26,940.88	General Pacific Inc	
Supplier Payment	Check	29244	12/31/2025	3,859.60	Genuine Parts Company - Remit-To: NAPA - Vancouver	
Supplier Payment	Check	29245	12/31/2025	450,550.30	Grade Werks Excavating LLC	
Supplier Payment	Check	29246	12/31/2025	3,159.21	Greystone Partners, Inc	
Supplier Payment	Check	29247	12/31/2025	1,522.50	Groundwater Solutions, Inc.	
Supplier Payment	Check	29248	12/31/2025	140.00	H&H Wood Recyclers	
Supplier Payment	Check	29249	12/31/2025	119.85	Harold LeMay Enterprises	
Supplier Payment	Check	29250	12/31/2025	7,173.72	Hispanic Metropolitan Chamber	
Supplier Payment	Check	29251	12/31/2025	2,800.00	Jack M Litman Phd	
Supplier Payment	Check	29252	12/31/2025	406.25	Jane Tesner Kleiner	
Supplier Payment	Check	29253	12/31/2025	3,307.50	Kramer Gehlen & Associates	

*Please contact Procurement Services if you would like to review the justification for EMERGENCY procurement.

INVOICE PAYMENTS REPORT

Category	Type	Transaction Reference	Date	Amount	Payee	Memo
Supplier Payment	Check	29254	12/31/2025	255.57	Kurita America Inc - Remit-To: US Water - Minneapolis	
Supplier Payment	Check	29255	12/31/2025	7,833.60	L&S Contracting LLC	
Supplier Payment	Check	29256	12/31/2025	1,708.05	Lakeyland Inc	
Supplier Payment	Check	29257	12/31/2025	3,780.05	Language Line Services, Inc.	
Supplier Payment	Check	29258	12/31/2025	2,406.91	Level 3 Financing, Inc	
Supplier Payment	Check	29259	12/31/2025	1,448.25	Mallory Safety & Supply LLC	
Supplier Payment	Check	29260	12/31/2025	484.88	Municipal Emergency Services Inc - Remit-To: Municipal Emergency Services - Chicago	
Supplier Payment	Check	29261	12/31/2025	49,000.00	OpportunitySpace, Inc	
Supplier Payment	Check	29262	12/31/2025	40,989.20	SEA-WESTERN, INC.	
Supplier Payment	Check	29263	12/31/2025	83.62	Software House International SHI - Remit-To: SHI - Dallas	
Supplier Payment	Check	29264	12/31/2025	67,849.53	Stantec Consulting Services Inc - Remit-To: Stantec - Chicago	
Supplier Payment	Check	29265	12/31/2025	15.27	Stericycle Inc - Remit-To: Shred-It	
Supplier Payment	Check	29266	12/31/2025	430.00	T-Mobile	
Supplier Payment	Check	29267	12/31/2025	1,012.92	Triple J Enterprises, Inc.	
Supplier Payment	Check	29268	12/31/2025	840.88	United States Dosimetry Technology Inc	
Supplier Payment	Check	29269	12/31/2025	195.00	Vancouver Granite Works Inc	
Supplier Payment	Check	29270	12/31/2025	107.30	Vestis Group, Inc - Remit-To: Vestis - Pasadena	
Supplier Payment	Check	29271	12/31/2025	342.72	W.B. Sprague Co. Inc.	
Supplier Payment	Check	29272	12/31/2025	792.86	Walter E Nelson Company	
Supplier Payment	Check	29273	12/31/2025	26,063.92	Waste Connections of Washington - Remit-To: Waste Connections - Vancouver	
Supplier Payment	Check	29274	12/31/2025	2,387.56	Western Systems Inc	
Miscellaneous Payment	Check	29275	12/31/2025	20,000.00	Byron V. Rose	VPD Case #25-14300
Miscellaneous Payment	Check	29276	12/31/2025	1,006.40	Cascadia Development Partners	LUP-83981 (jobsite: 19530 SE Brady Rd 1A)
Miscellaneous Payment	Check	29277	12/31/2025	65,000.00	Dana M Mortise	VPD Case #25-10833
Miscellaneous Payment	Check	29278	12/31/2025	1,228.43	Elizabeth and Justin Mitchell	RES-380128 (jobsite: 12701 NE 7th Place)
Miscellaneous Payment	Check	29279	12/31/2025	24.00	Silver Buckle Homes LLC	RES-369403 (jobsite: 3022 NE 141st Ave. Vancouver, WA. 98682)
Miscellaneous Payment	Check	29280	12/31/2025	275.00	Stanae Pison	Rental Damage Deposit Refund
Ad Hoc Payment	Check	29281	12/31/2025	89.93	Carpenter,Karley	10510 NE 71ST ST ,VANCOUVER,WA,98662
Ad Hoc Payment	Check	29282	12/31/2025	296.59	Dereck Johnson or Yeuk Ning	1900 NE 158TH AVE ,VANCOUVER,WA,98684
Ad Hoc Payment	Check	29283	12/31/2025	228.02	Donesky,Damian or Katey	4510 NE 62ND AVE ,VANCOUVER,WA,98661
Ad Hoc Payment	Check	29284	12/31/2025	507.34	Enyeart,Martin	15308 NE 11TH CIR ,VANCOUVER,WA,98684
Ad Hoc Payment	Check	29285	12/31/2025	235.89	Howard,Steven	2109 NE LANDOVER DR ,VANCOUVER,WA,98684
Ad Hoc Payment	Check	29286	12/31/2025	27.95	Jean,Maureen	7801 NE LOOWIT LOOP ,VANCOUVER,WA,98662
Ad Hoc Payment	Check	29287	12/31/2025	208.95	Kailie Abascal Alejo or Ashley Abascal	3707 NE 35TH ST ,VANCOUVER,WA,98661
Ad Hoc Payment	Check	29288	12/31/2025	100.50	Nichols,Tawana or Clarance	8000 NE 156TH PL ,VANCOUVER,WA,98682
Ad Hoc Payment	Check	29289	12/31/2025	21.38	Stuart,Melisae	3213 P ST ,VANCOUVER,WA,98663
Ad Hoc Payment	Check	29290	12/31/2025	140.24	The Brandt Family Trust	5004 NE 50TH AVE ,VANCOUVER,WA,98661

*Please contact Procurement Services if you would like to review the justification for EMERGENCY procurement.

INVOICE PAYMENTS REPORT

Category	Type	Transaction Reference	Date	Amount	Payee	Memo
Ad Hoc Payment	Check	29291	12/31/2025	25.25	The Estate of JD Kienitz	12619 SE 10TH ST ,VANCOUVER,WA,98683
Ad Hoc Payment	Check	29292	12/31/2025	192.55	The Pacific NW Group LLC	2323 NE GENERAL ANDERSON AVE ,VANCOUVER,WA,98661
Ad Hoc Payment	Check	29293	12/31/2025	192.59	Williams,Brett	14709 NE 37TH ST ,VANCOUVER,WA,98682
Ad Hoc Payment	Check	29294	12/31/2025	150.00	Wise Move Property Management	2323 NE GENERAL ANDERSON AVE ,VANCOUVER,WA,98661
	74	-73	**Check**	**1,120,678.01**		
Expense Payment	Direct Deposit	EFT-00331341	12/31/2025	188.04	Joseph Stewart	Employee Reimbursement
Expense Payment	Direct Deposit	EFT-00331342	12/31/2025	31.50	Darren McShea	Employee Reimbursement
Expense Payment	Direct Deposit	EFT-00331343	12/31/2025	434.00	David Henderson	Employee Reimbursement
Expense Payment	Direct Deposit	EFT-00331344	12/31/2025	434.00	Kate Jenkins	Employee Reimbursement
Expense Payment	Direct Deposit	EFT-00331345	12/31/2025	400.00	Jason Hess	Employee Reimbursement
Expense Payment	Direct Deposit	EFT-00331346	12/31/2025	280.47	John Kendall	Employee Reimbursement
Expense Payment	Direct Deposit	EFT-00331347	12/31/2025	220.80	Cyle Buckland	Employee Reimbursement
Expense Payment	Direct Deposit	EFT-00331348	12/31/2025	172.34	Susan McNutt-Koning	Employee Reimbursement
Expense Payment	Direct Deposit	EFT-00331349	12/31/2025	78.43	David Sturbelle	Employee Reimbursement
Expense Payment	Direct Deposit	EFT-00331350	12/31/2025	220.80	Trevor Hurn	Employee Reimbursement
Expense Payment	Direct Deposit	EFT-00331351	12/31/2025	434.00	Brent Giles	Employee Reimbursement
Expense Payment	Direct Deposit	EFT-00331352	12/31/2025	203.62	Brandon Osborn	Employee Reimbursement
Expense Payment	Direct Deposit	EFT-00331353	12/31/2025	189.16	Hunter Cramer	Employee Reimbursement
Expense Payment	Direct Deposit	EFT-00331354	12/31/2025	226.42	Nicholas Kujava	Employee Reimbursement
Expense Payment	Direct Deposit	EFT-00331355	12/31/2025	124.35	John Schultz	Employee Reimbursement
Expense Payment	Direct Deposit	EFT-00331356	12/31/2025	300.00	Daniel Kumpula	Employee Reimbursement
			Direct Deposit	**3,937.93**		
Supplier Payment	EFT	EFT-00331357	12/31/2025	2,899.06	Otak Inc	
Supplier Payment	EFT	EFT-00331358	12/31/2025	250,000.00	Vancouver USA Regional Tourism Office	
Supplier Payment	EFT	EFT-00331359	12/31/2025	574,476.49	Operations Management International Inc	
Supplier Payment	EFT	EFT-00331360	12/31/2025	500.00	Eurofins Eaton Analytical, LLC	
Supplier Payment	EFT	EFT-00331361	12/31/2025	1,298.74	Marten Law LLP	
Supplier Payment	EFT	EFT-00331362	12/31/2025	162,172.66	Brown and Caldwell - Remit-To: Brown & Caldwell - San Francisco	
Supplier Payment	EFT	EFT-00331363	12/31/2025	10,466.89	Northwest Staffing Resources Inc - Remit-To: Northwest Staffing Resources	
Supplier Payment	EFT	EFT-00331364	12/31/2025	27,352.05	Pacific Landscape Services Inc	
Supplier Payment	EFT	EFT-00331365	12/31/2025	38.41	Ziply Fiber	
Supplier Payment	EFT	EFT-00331366	12/31/2025	6,687.98	La Casita Multicultural Center	
Supplier Payment	EFT	EFT-00331367	12/31/2025	107,219.18	Stellar J Corporation	
Supplier Payment	EFT	EFT-00331368	12/31/2025	204,630.46	Halme Excavating Inc	
Supplier Payment	EFT	EFT-00331369	12/31/2025	1,284,157.21	Tapani Inc	
Supplier Payment	EFT	EFT-00331370	12/31/2025	199,061.99	Western United Civil Group, LLC - Remit-To: Western United Civil Group, LLC	
Supplier Payment	EFT	EFT-00331371	12/31/2025	182,691.52	JRT Mechanical Inc	
Supplier Payment	EFT	EFT-00331372	12/31/2025	3,301.20	Oregon Aerial Construction LLC	
Supplier Payment	EFT	EFT-00331373	12/31/2025	527.41	Epic Land Solutions, Inc.	
Supplier Payment	EFT	EFT-00331374	12/31/2025	8,340.00	The Arts Centered	
Supplier Payment	EFT	EFT-00331375	12/31/2025	15,421.21	GMP Consultants	
Supplier Payment	EFT	EFT-00331376	12/31/2025	600.00	Rotschy Inc	
Supplier Payment	EFT	EFT-00331377	12/31/2025	13,457.25	Nelson Nygaard Consulting Associates Inc	
Supplier Payment	EFT	EFT-00331378	12/31/2025	140.00	Brad Piesch Aggressive Enterprises, Inc	
Supplier Payment	EFT	EFT-00331379	12/31/2025	13,600.00	Independent Heating & Cooling LLC	
Supplier Payment	EFT	EFT-00331380	12/31/2025	39,350.33	Bound Tree Medical LLC	
Supplier Payment	EFT	EFT-00331381	12/31/2025	638.25	Metro Overhead Door Inc	
Supplier Payment	EFT	EFT-00331382	12/31/2025	2,865.29	City Electric Co	

*Please contact Procurement Services if you would like to review the justification for EMERGENCY procurement.

INVOICE PAYMENTS REPORT

Category	Type	Transaction Reference	Date	Amount	Payee	Memo
Supplier Payment	EFT	EFT-00331383	12/31/2025	57,634.05	Fourth Plain Forward	
Supplier Payment	EFT	EFT-00331384	12/31/2025	272.00	George Elevator Service LLC	
			EFT	**3,169,799.63**		
Supplier Payment	Manual Wire		12/29/2025	817,716.92	State of Washington Department of Retirement Systems (DRS)	
Supplier Payment	Manual Wire		12/29/2025	50,525.40	State of Oregon Department of Revenue	
Supplier Payment	Manual Wire		12/29/2025	14,989.53	Bank Of America N.A. - Remit-To: Charlotte NC	
Supplier Payment	Manual Wire		12/29/2025	488,292.33	State of Washington Department of Revenue	
Supplier Payment	Manual Wire		12/30/2025	304,888.39	Blue Cross Blue Shield of Oregon	
Supplier Payment	Manual Wire		12/30/2025	9,668.20	Washington Dental Service	
Supplier Payment	Manual Wire		1/2/2026	2,728.56	Internal Revenue Service	
			Manual Wire	**1,688,809.33**		
			Checks	**1,120,678.01**		
			Direct Deposit	**3,937.93**		
			EFT	**3,169,799.63**		
			1/5/2026	471,009.94	City Payments	Posted 12-29-25 to 01-04-26
			Hansen Total	**471,009.94**		
			1/5/2026	546.00	Miscellanous	Parks Class Refunds FCC 12-29-25 to 01-04-26
			1/5/2026	279.00	Miscellanous	Parks Class Refunds MCC 12-29-25 to 01-04-26
			VISA Total	**825.00**		
			Payroll Total	**48,278.33**		
			GRAND TOTAL	**6,503,338.17**		

*Please contact Procurement Services if you would like to review the justification for EMERGENCY procurement.

City of Vancouver
Payroll Council Report
December 29, 2025 - January 04, 2026

Check No.	Date	Explanation	Amount	
3197 - 3201	12/31/25	12 2025 Pension Payroll	$	6,428.01
331236 - 331278	12/31/25	12 2025 Pension Direct Deposits	$	41,850.32

$ 48,278.33

A RESOLUTION adopting the Green Building Program and providing agency-wide guidance on the incorporation of the Green Building Program into plans, programs, and policies.

Staff Report: 008-26

To: Mayor and City Council
From: City Manager
Date: January 12, 2026

Subject
City of Vancouver's Green Building Program

Key Points

- The GBP outlines a policy framework for future land use and building code standards and is a key action item identified in the City's Climate Action Framework's (CAF), adopted by City Council in 2022.
- The GBP policies will apply to new construction and substantial redevelopment projects and are intended to reduce greenhouse gas emissions, improve energy efficiency, strengthen resilience to climate impacts, and protect local ecosystems.
- Implementation of the policies will involve a combination of minimum requirements and optional measures that may be eligible for certain city incentives, which are identified in the GBP and will be codified through a separate public process.
- Implementation of these policies will occur in phases. Policies related to the development of sites not related to the building construction itself will be codified in Vancouver Municipal Code (VMC) Title 20, Land Use and Development Code, as part of the Comprehensive Plan Code Update in 2026. Policies related to building construction will be codified in VMC Title 17, Building Code, following the next round of State Building Code updates which are currently anticipated in 2027.

Strategic Plan Alignment
Climate and Natural Systems – environmental stewardship and efforts to address climate change to ensure a sustainable future

Present Situation
The City of Vancouver's Green Building Program (GBP) Policies are designed to align new construction with our community's greenhouse gas (GHG) reduction and climate resiliency goals while also supporting housing production and affordability. These policies aim to ensure that as Vancouver grows, it continues to be an attractive place to build, invest and call home.

Unless specifically noted otherwise, these policies are intended to apply to: 1) all new construction and 2) redevelopment projects that trigger compliance with new state Building Energy Code requirements under Title 17 VMC. Based on stakeholder feedback and potential conflicts with other city policies or state law, it is appropriate for future code amendments to include certain exemptions or specific flexibility in how the Green Building policies are applied to affordable housing projects, restaurants/manufacturing uses, residential projects involving 1-6 units (missing middle housing), and marine terminal operations. Such identified areas for flexibility are described in this document.

Developed in 2024 with support from the consulting firm Sustainability Solutions Group (SSG), the initial set of policy ideas was shaped through a public process that built on the strategies and actions identified in the community-informed Climate Action Framework (CAF), adopted by Vancouver City Council in 2022. The project team gathered input through focus groups, interviews, an open house, and direct engagement with local development and affordable housing organizations. A technical advisory group representing a variety of industry and advocacy perspectives met multiple times to review, discuss and refine the draft policies. SSG modeled GHG and energy consumption of the draft policies and provided a high-level financial analysis of the net costs of the proposed policies. A copy of the Initial Draft Policy Recommendations and associated reports can be found in Appendix A.

Following the presentation of the Draft Policy Recommendations in January 2025, Council requested a more rigorous, locally specific financial analysis to better understand how these policies might affect project feasibility. City staff worked with BAE Urban Economics to conduct a financial analysis of potential costs and impacts across different development types. Based on this analysis, and in response to feedback from local developers and nonprofit affordable housing providers, City staff made targeted adjustments to the policies to balance environmental outcomes with practical implementation. A copy of the BAE financial analysis can be found in Appendix B.

The resulting policies represent a measured, data-informed approach to encouraging sustainable building practices. They are a key step toward reducing emissions, improving resilience to climate impacts, and ensuring that growth in Vancouver supports both environmental and community well-being.

Implementation of these policies will occur in phases. Policies related to the development of sites not related to the building construction itself will be codified in Vancouver Municipal Code (VMC) Title 20, Land Use and Development Code, as part of the Comprehensive Plan Code Update in 2026. Policies related to building construction will be codified in VMC Title 17, Building Code, following the next round of State Building Code updates which are currently anticipated in 2027. As this policy is codified into enforceable code language, City staff will continue to explore opportunities to achieve the goals of this policy through more effective and/or cost-effective requirements.

In the interim period between adoption of the GBP and these code amendments, new city municipal facilities will be intended to be designed and constructed with all features noted as “required” in this program. Also, other projects that voluntarily provide all features noted as required plus two “optional” features will be eligible for the full suite of incentives identified in this GBP. Due to the fact that some of the proposed incentives will require amendments to Vancouver Municipal Code, the incentives will also necessarily be phased in over time.

Advantage(s)

1. The proposed GBP will improve community resiliency and climate outcomes from new construction in a number of areas, such as energy efficiency, sustainable building materials, EV charging, renewable energy systems, cool roofing and cool site surfaces, residential indoor temperature control, air filtration and refuge areas, bird-friendly design, dark-sky lighting, etc.
2. The GBP implements a key action item from the City's adopted Climate Action Framework.
3. Minimum site and building requirements will be phased in over the next couple of years through separate updates to Title 20 VMC (Land Use and Development Code) and VMC Title 17 (Building Code), to allow the building industry time to prepare and adapt to new requirements.
4. Future detailed code requirements will be based on the policies of the GBP, but will entail

further opportunities for public review and comment.

Challenge(s)

1. As with any new regulation, the policies proposed by the GBP will add costs to new development projects in an already-challenging construction environment; however, particular care has been taken to understand and balance the trade-offs between construction costs, climate benefits, and value of proposed incentives.
2. The list of available incentives to offset increased construction costs is limited; however, staff is committed to identifying new and creative incentives which could be added to the program later.

Budget Impact

Approximately $30,000/year for an outside energy code expert who can assist building code staff with their review of any energy performance modeling analyses by applicants (not until 2027).

Prior Council Review

- 3/25/2024 Council CMO Communications
- 12/16/24 Council WS
- 1/27/2025 Council WS
- 7//14/2025 Council WS
- 10/24/2025 Council CMO Communications

Action Requested

On Monday, January 12, 2026, finalize and approve the resolution adopting the City's Green Building Program.

Staff Contact

Rebecca Small, Senior Policy Analyst, Chad Eiken, Community Development Director, Chim Chune Ko, Principal Project Manager, rebecca.small@cityofvancouver.us, chad.eiken@cityofvancouver.us, ChimChune.Ko@cityofvancouver.us

Attachments:

1. Presentation
2. Memo
3. Attachment A - Resolution
4. Attachment B1 Green Building Program Final Report
5. Attachment B2 - Appendices - ABC
6. Attachment C - SEPA DNS and Checklist

CITY OF Vancouver WASHINGTON

Green Building Program

Rebecca Small, Senior Policy Analyst
Chad Eiken, Community Development Director
Chim Chune Ko, Real Estate Project Manager

January 12, 2026

Context

Overall Goal of Program

- To support the construction of new buildings that contribute to Vancouver's climate action and resilience objectives.

The program seeks to balance ambitious building standards with cost and feasibility, promoting sustainable development across the city while preserving housing affordability and supporting continued economic growth.

Engagement

Staff collaborated with a wide range of stakeholders, using a targeted engagement strategy to gather meaningful input and inform the development of the program. Engagement efforts focused on the following stakeholder groups:

- Technical Advisory Group
- Affordable Housing Developers and Operators
- Market Rate Developers and Operators
- General Public
- Building Institute of America
- Local Utilities
- City Staff (general services, permitting, housing, solid waste, etc...)
- SEPA Agencies/Interested Parties received copy of Determination of Non-Significance (DNS)

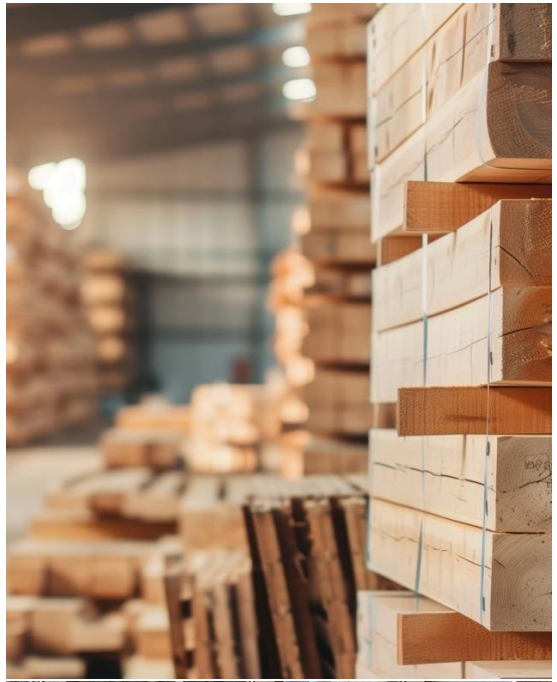
Green Building Measures

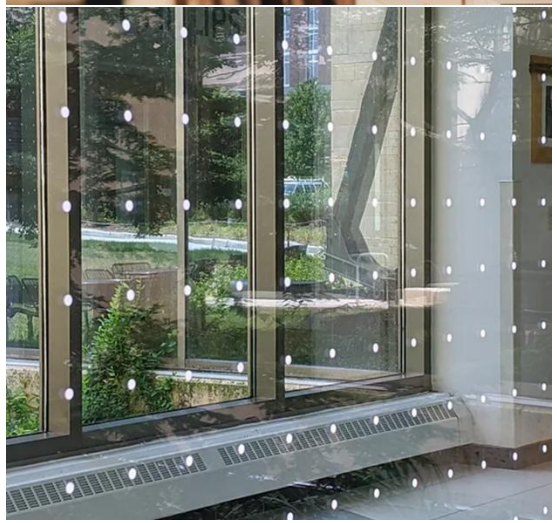
Sorted by Program Goal

GHG Reduction/Energy Efficiency	Protection from Climate Hazards	Protection for Local Ecology
Improved Energy Efficiency	Indoor temperature control (AC)	Dark Sky Lighting
All-Electric Ready	Air Filtration Standard	Bird Friendly Design
Lower Carbon Building Materials	Cool Roofing	Climate Adapted Vegetation
Renewable Energy Generation	Cool Site Surfaces	
Sustainable Building Materials		
EV Chargers on Commercial Meter		

Policies removed from plan

- **Bike Parking:** Under development by the Transportation team as part of Comp Plan Update requirements.
- **Energy Benchmarking:** Objectives are better addressed by local utility partners.
- **Demolition Waste:** State requirements and incentives already cover this area, and further policy would increase administrative burden with little greenhouse gas impact





Refined proposed measures for cost efficiency

- **Bird-friendly Design**: Use “Threshold Values” instead requiring specific products or treatments
- **Air Filtration:** Changed to “MERV-13-Capable or Equivalent” to allow for use of lower-grade filters during non-hazard conditions
- **EV Commercial Meter:** Changed from requiring a commercial meter to require tracking electrical usage for EV chargers independently of other building uses
- **Cool Roofing:** Added exemption for pitched roofs, in consideration of their lesser impact on heat island effects compared to flat roofs
- **Cool Site Surfaces** and **Resilient/climate adapted vegetation**: Alternate standards for industrially zoned sites, recognizing their need for active use of surface lot space.

Required vs. Optional (Incentivized) Measures

Proposed split based on relative cost vs. impact toward City climate goals

Required	Optional/Incentivized
Dark Sky Lighting	Bird Friendly Design
EV Charging tracked separately	Renewable Energy Generation/Solar Ready
Cool Site Surfaces[2]	Sustainable Building Materials
All-Electric Ready[1,2,3]	Low Carbon Building Materials
Climate Adapted Vegetation	
Improved Energy Efficiency over State Standard[1]	
Air Filtration – MERV 13 or Equivalent[1,2]	
Indoor Temperature Control[1,2]	
Cool Roofing[4]	

[1] Special exemptions for affordable housing
[2] Special exemptions for light/heavy manufacturing uses
[3] Exempt for commercial food preparation uses
[4] Baseline requirement; incentives available for additional measures

Affordable Housing Exemptions

Rental housing at 80% AMI and below

- Indoor Temperature Control and Enhanced Air Filtration can be provided in a central refuge area instead of in each individual unit
- Exempt from other required Title 17 policies

For sale housing at 120% AMI and below

- Exempt from Title 17 required policies **except** Ind oor Temperature control and Enhanced Air Filtration

Affordable housing may still qualify for incentives

Marine Terminal Exemptions

Title 20 Exemptions for:

- Conflicts with legal requirements
- Conflicts with safety requirements
- Demonstrated significant negative impacts

Applicant must demonstrate conflict in writing

Development Agreements

- For new Development Agreements that involve new development, City policy will be that all ‘required’ GBP measures as shown on Slide 7 shall be provided at a minimum

- Council retains discretion to insist on 'optional' features being required as well

Incentives

Current incentives unlikely to drive voluntary adoption

Other possible incentives that the City could explore:

- Full waiver of impact fees, SDC's
- Construction sales tax rebate
- Tax Increment Financing to fund sustainable infrastructure or district energy
- Downtown Design Guidelines Exemption

Future/long term efforts:

- Develop a new green building funding source
- City could fund/develop resources that could be shared by new developments:
  - District EV and bike parking facilities
  - Community solar installations

Next Steps

- **Tonight:** Council vote on adoption of Green Building Program
- **Q1-2 2026:** Targeted Council adoption of required GBP measures in Title 20 VMC
- **Q1 2027:** Targeted Council adoption of required GBP measures in Title 17 VMC

CITY OF Vancouver WASHINGTON

MEMORANDUM

DATE: January 12, 2026

TO: Mayor and City Council
CC: Rebecca Small, Senior Policy Analyst, CMO
Chad Eiken, Director, CDD
Chim Chune Ko, Real Estate Project Manager, EP&H

FROM: Lon Pluckhahn, City Manager

RE: **GREEN BUILDING PROGRAM – RESOLUTION FOR ADOPTION**

Introduction

This memo presents the final Green Building Program proposal for City Council's consideration and possible adoption. The GBP is comprised of a coordinated set of policy initiatives, incentives, and an implementation timeline (see **Attachment B1**).

These materials reflect nearly two years of work by City staff, community members, and industry partners to shape a program balances the urgency of reducing building emissions and protecting residents from the impacts of climate change with the need to support housing production and affordability, enable business activity on complex sites, and give the development community a clear, workable, and financially feasible path to meet increasingly progressive building standards.

The proposal before Council represents a careful, collaborative effort that balances different policy goals such as improving climate outcomes while minimizing impacts to affordable housing production and local business activity. Staff recommend that Council approve the resolution adopting the GBP and direct staff to move forward with drafting the necessary code amendments and program implementation steps.

Purpose of the Policy

The GBP advances the Climate Action Framework's (CAF) core goals by implementing policies and programs to reduce greenhouse gas emissions, improve energy efficiency, strengthen resilience to climate impacts, and protect local ecosystems: The GBP advances the Climate Action Framework's (CAF) core goals by implementing policies and programs to reduce greenhouse gas emissions, improve energy efficiency, strengthen resilience to climate impacts, and protect local ecosystems.

As the City prepares for increased development under the Comprehensive Plan update, setting standards to ensure low-or no-carbon buildings is one of the most effective ways to keep emissions from increasing from new development activity. At the same time, more frequent wildfires, heat waves, and intense storms mean that implementing building resiliency measures now will equip future development to better protect our growing community.

As Vancouver moves away from fossil fuels, it is also critical to use electricity more efficiently to conserve limited grid capacity as the region grows. Residents have also said they value Vancouver's unique natural environment and want it preserved.

The GBP brings these priorities together while remaining mindful of employment space, housing supply, and affordability.

Program Development
The City began developing the GBP in early 2024 with support from Sustainability Solutions Group (SSG), a climate action planning firm based in Vancouver, B.C. The initial policy concepts were based on the CAF, industry best practices, and input from peer jurisdictions. Staff gathered feedback through focus groups, interviews, an open house, and direct engagement with local development and affordable housing partners. A technical advisory group (TAG) met multiple times to review and refine the concepts, while SSG modeled greenhouse gas emissions, energy use, and prepared a high-level financial analysis.

After Council reviewed the draft policy recommendations in January 2025, it requested a more detailed, locally-focused financial analysis. City staff then worked with BAE Urban Economics to evaluate costs and feasibility across different development types. Based on that July 2025 analysis and additional feedback from developers, nonprofit housing providers, and the TAG, staff made targeted adjustments to the program.

Modifications based on financial analysis
BAE found that several proposed policies would create higher costs across multiple development types and that the City's available incentives were limited in their ability to offset those costs. In response, staff reviewed the program to identify lower-cost ways to achieve the desired climate outcomes, removed certification requirements that would require developers to hire additional specialists, and eliminated policies where added cost or delay outweighed the climate benefit or where the goal could be met through non-regulatory means.

The analysis also prompted staff to reconvene with nonprofit and affordable housing providers to determine where requirements could be shifted to incentives or where implementation timelines could be phased to allow time for the market to adapt. Based on BAE's findings, staff also revised which policies are required versus incentivized, retaining only those with minimal cost impacts or clear, high climate benefits as requirements. These changes respond directly to Council's request for a program that is both effective and feasible to implement.

Next Steps
Following City Council adoption of the Green Building Program, staff will begin drafting ordinances to implement specific incentives outlined in the GBP, which will be in effect following ordinance adoption. Additionally, staff will draft more specific code changes to Title 17 (Building Code) and Title 20 (Land Use) to implement the program's policies.

Updates to Title 20 will follow the public review and adoption process for the Comprehensive Plan update, scheduled for mid-2026. Updates to Title 17 will be developed in coordination with the next Washington State Energy Code update, which is expected to take effect in late 2026 or early 2027. Both updates will involve further opportunities for public input, including public hearings.

Until those state and local code updates are in place, any green building standards in the GBP will be completely optional but projects may qualify for incentives as they are adopted, which will support early adoption and provide a clear transition period for the development community. Staff will also continue outreach and training with stakeholders to support a smooth shift to the new standards before they are adopted.

Staff contact info
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Chim Chune Ko, Real Estate Project Manager, Economic Prosperity & Housing, chimchune.ko@cityofvancouver.us

Attachment(s):
Attachment A: RESOLUTION adopting the Green Building Program
Attachment B1: Green Building Program Proposal
Attachment B2: Green Building Program Proposal Appendices
Attachment C: SEPA Determination of Nonsignificance (DNS) and SEPA Environmental Checklist

1/12/2026

RESOLUTION NO. M- [Resolution Number]

A RESOLUTION adopting the Green Building Program and providing agency-wide guidance on the incorporation of the Green Building Program into plans, programs, and policies.

WHEREAS, Vancouver is rapidly growing and is expected to add 38,000 more housing units by 2045, and

WHEREAS, In December 2022, City Council established its climate action goal to include an 80% reduction in community and corporate greenhouse gas emissions from 2007 levels by 2030, with carbon neutrality targeted by 2040, and

WHEREAS, Central to Vancouver's strategy is the Climate Action Framework, emphasizing emissions reduction in buildings and transportation while promoting efficient land use and resilient natural systems, and

WHEREAS, Addressing carbon pollution in buildings is a two-pronged approach: 1) requiring new buildings to be energy efficient and carbon neutral, and 2) reducing emissions from existing buildings through retrofits, and

WHEREAS, Requiring new construction to be high performance avoids the lock-in problem that many existing buildings suffer where buildings are constrained into carbon emitting systems, and ensures that future development does not adversely impact the city’s progress toward meeting emission reduction targets, and

WHEREAS, The Green Building Program is designed to protect residents from climate-related hazards, reduce ecological impacts, and support the City’s 2040 carbon neutrality target by lowering building energy use and life-cycle carbon emissions, and

WHEREAS, The Green Building Program was developed with a combination of extensive literature review, best practices research, energy and emissions scenario modeling, financial modeling, and engagement with interested and affected parties, and

WHEREAS, The Green Building Program focuses on requirements and incentives for new buildings, aiming to achieve zero emission buildings without creating undue burdens on design teams, developers, contractors, and City officials, and

WHEREAS, The Green Building Program works to create equitable access to the benefits of new green buildings, encourage modern and improved energy and transportation options, and provide resilience to climate change impacts like extreme heat and wildfire impacts, and

WHEREAS, As we advance these goals, the City remains committed to balancing standards with cost and feasibility considerations to ensure that Vancouver continues to be an attractive place for investment and development.

NOW, THEREFORE,

BE IT RESOLVED BY THE CITY OF VANCOUVER:

Section 1. **Findings**. The City Council adopts the above recitals and the information in SR_____ as findings.

Section 2. The City Council adopts the attached Green Building Program document as the framework that will guide both current incentives and future code amendments to fully implement the City's Green Building Program. The City Manager or designee is authorized to make minor edits to the Program document as needed.

Section 3. Effective Date. This resolution is effective immediately. ADOPTED at a Regular Meeting of the Vancouver City Council this _____, of _____, 2026.

_____

Anne McEnerny-Ogle, Mayor

Attest:

_____

Natasha Ramras, City Clerk

Approved as to form:

_____

Nena Cook, City Attorney

DRAFT City of Vancouver Green Building Program

DECEMBER 2025

CITY OF Vancouver WASHINGTON

Vancouver Waterfront

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APPENDIX A:
Initial Green Building Program proposal (Prepared by Sustainable Solutions Group, Inc.)

APPENDIX B
Green Building Financial Analysis (prepared by BAE Urban Economics)

Esther Short Park

Introduction

The Green Building Program is part of the City of Vancouver's commitment to reducing greenhouse gas emissions and building a more resilient community. Nearly 40% of the City's emissions come from the energy used to power homes and businesses. To meet the goals of our Climate Action Framework—achieving carbon neutrality by 2040—new buildings must use energy efficiently and source power from clean, renewable sources.

As our climate changes, we are already experiencing longer periods of extreme heat, wildfire smoke, and shifting rainfall patterns. Buildings must be designed to protect residents from these hazards while minimizing impacts on local wildlife and natural systems.

We recognize that Vancouver's development community plays a central role in shaping the city. Developers and builders create the homes, workplaces, and community spaces where people live, work, and connect. This program has been designed with their guidance and expertise to ensure that our high standards are achievable, respect the costs of development, and allow time for the industry to adapt to new requirements.

The program outlines policies, incentives, and an implementation timeline to guide builders toward these goals while supporting housing production and affordability. By working together with our development partners, we can create buildings that protect residents, care for the environment, and help our community grow sustainably.

Contributors

CITY OF VANCOUVER

Rebecca Small, Senior Policy Analyst
Chad Eiken, Community Development Director
Chim Chune Ko, Real Estate Project Manager
Lauren DiPalma, Building Plans Examiner Supervisor
Sree Thirunagari, Building Official
Jeri Newbold, Assistant Building Official
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Aaron Lande, Policy and Programs Director
Geraldene Moyle, General Services Director
Patrick Quinton, EP & H Director
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Brian Taylor, Facilities Superintendent

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Eli Booth, BAE Urban Economics
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Victor Caesar, Vancouver Housing Authority (VHA)
Scott Davidson, Vancouver Housing Authority
Kevin Duell, Northwest Natural
Peter Fels, Washington Conservation Action, ACE Coalition Representative
Andy Frichtl, Interface Engineering
Jon Girod, Quail Homes
Ian Harkins, Building Industry Association of Clark County
Bill Hibbs, Clark Public Utilities District
Darcy Hoffman, Workforce SW WA
Sherrie Jones, SW WA Contractors Association
Ben Kaiser, LSW Architects
Dani Ledezma, Vancouver Housing Authority
Noelle Lovern, Building Industry Association of Clark County
Jerud Martin, Urban Northwest Homes
Bryan Monroe, Associate Housing Project Coordinator
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Joshua Ollinger, Vancouver Housing Authority
Lona Rerick, AIA, Perkins&Will
Bryan Ruth, Vancouver Housing Authority
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CENTRAL CITY REDEVELOPMENT AUTHORITY

Definitions

ASHRAE	American Society of Heating, Refrigerating, and Air Conditioning Engineers
CAF	Climate Action Framework (the City of Vancouver's blueprint toward climate resiliency and carbon neutrality by 2040.
Carbon dioxide	A naturally occurring gas, CO2 is also a by-product of burning fossil fuels (such as oil, gas, and coal), of burning biomass (e.g., wood), of land-use changes (LUC), and of industrial processes (e.g., cement production). It is the principal human-made greenhouse gas (GHG) that affects the Earth's temperature balance.
Carbon neutral	The state when GHG emissions produced are equal to GHG emissions reduced and sequestered (taken out of the atmosphere).
Carbon pollution	The carbon dioxide and other greenhouse gases added to the atmosphere through human activity.
Climate change	The Framework Convention on Climate Change (UNFCCC) defines climate change as: 'a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.'
District energy	Connecting multiple buildings to a single source of heating and/or cooling.
Ecosystem services	Ecological processes or functions having monetary or non-monetary value to individuals or society at large. These are frequently classified as (1) supporting services such as productivity or biodiversity maintenance, (2) providing services such as food or fiber, (3) regulating services such as climate regulation or carbon sequestration, and (4) cultural services such as tourism or spiritual and aesthetic appreciation.
Energy efficiency	Using appropriate technologies (physical or equipment) and refining operations to work optimally in order to minimize energy use while maintaining the desired operation.
Equity	The principle of fairness in burden sharing and a basis for understanding how the impacts and responses to climate change, including costs and benefits, are distributed in and by society in more or less equal ways. It is often aligned with ideas of equality, fairness and justice, and applied with respect to equity in the responsibility for, and distribution of, climate impacts and policies across society, generations, and gender, and in the sense of who participates and controls the processes of decision-making.
Extreme weather event	A destructive and/or dangerous weather event that is historically rare (but can be increasingly common under climate change conditions) at a particular place and time of year.
Fossil fuels	Carbon-based fuels from fossil hydrocarbon deposits, including coal, oil, and natural gas.

Greenhouse gas (GHG)	Atmospheric gases, both natural and human-made, that absorb and emit heat. This property causes the greenhouse effect. Water vapor (H2O), carbon dioxide (CO2), nitrous oxide (N2O), methane (CH4) and ozone (O3) are the primary GHGs in the Earth's atmosphere. The increased presence of these and other GHGs in the atmosphere are the primary causes of climate change.
Heating, ventilation, and air conditioning (HVAC)	Heating, ventilation and air conditioning technology is used to control temperature and humidity in an indoor environment, providing thermal comfort and healthy air quality to the occupants.
Impacts	The consequences of realized risks on natural and human systems, where risks result from the interactions of climate-related hazards (including extreme weather and climate events), exposure, and vulnerability. Impacts generally refer to effects on lives; livelihoods; health and well-being; ecosystems and species; economic, social and cultural assets; services (including ecosystem services); and infrastructure. Impacts may be referred to as consequences or outcomes and can be adverse or beneficial.
Large Scale Residential	Any residential project with more than 20 units. Mixed-use buildings that meet the unit count and where non-residential (excluding residential amenity spaces) are only on the ground floor shall be included in this category.
Municipal buildings	In this context, buildings and facilities owned and operated by the City of Vancouver.
MERV-13	Minimum Efficiency Reporting Value, rating 13. MERV is the standard scale (1–16) used to rate how effectively an air filter removes airborne particles. A MERV-13 filter captures a high percentage of smaller particles—like fine dust, smoke, and some aerosols—and is the level recommended for good indoor air quality in many commercial and multifamily buildings.
Net-zero emissions	Net-zero emissions are achieved when human-made GHG emissions in the atmosphere over a specific time period do not exceed human-made removals of greenhouse gases in the same time period.
Non-residential	Any project for which its primary use is commercial, industrial, institutional, or other non-residential use. Mixed-use buildings where non-residential spaces exist on more than the ground floor shall be included in this category.
Resilience	The capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure while also maintaining the capacity for adaptation, learning, and transformation
SEPA	State Environmental Policy Act
Small Scale Residential	Any residential project with 20 units or less. Mixed-use buildings that meet the unit count and where non-residential (excluding residential amenity spaces) are only on the ground floor shall be included in this category.
WSEC	Washington State Energy Code

Green Building Program Policies

The City of Vancouver's Green Building Program (GBP) Policies are designed to align new construction with our community's greenhouse gas (GHG) reduction and climate resiliency goals while also supporting housing production and affordability. These policies aim to ensure that as Vancouver grows, it continues to be an attractive place to build, invest and call home.

Developed in 2024 with support from the consulting firm Sustainability Solutions Group, the initial set of policy ideas was shaped through a public process that built on the strategies and actions identified in the community-informed Climate Action Framework (CAF), adopted by Vancouver City Council in 2022. The project team gathered input through focus groups, interviews, an open house, and direct engagement with local development and affordable housing organizations. A technical advisory group representing a variety of industry and advocacy perspectives met multiple times to review, discuss and refine the draft policies. SSG modeled GHG and energy consumption of the draft policies and provided a high-level financial analysis of the net costs of the proposed policies. A copy of the Initial Draft Policy Recommendations and associated reports can be found in **Appendix A**.

Following the presentation of the Draft Policy Recommendations in January 2025, Council requested a more rigorous, locally specific financial analysis to better understand how these policies might affect project feasibility. City staff worked with BAE Urban Economics to conduct a financial analysis of potential costs and impacts across different development types. Based on this analysis, and in response to feedback from local developers and nonprofit affordable housing providers, City staff made targeted adjustments to the policies to balance environmental outcomes with practical implementation. A copy of the BAE financial analysis can be found in **Appendix B.**

The resulting policies represent a measured, data-informed approach to encouraging sustainable building practices. They are a key step toward reducing emissions, improving resilience to climate impacts, and ensuring that growth in Vancouver supports both environmental and community well-being.

Implementation of these policies will occur in phases. Policies related to the development of sites not related to the building construction itself will be codified in Vancouver Municipal Code (VMC) Title 20, Land Use and Development Code, as part of the Comprehensive Plan Code Update in 2026. Policies related to building construction will be codified in VMC Title 17, Building Code, following the next round of State Building Code updates which are currently anticipated in 2027. As this policy is codified into enforceable code language, City staff will continue to explore opportunities to achieve the goals of this policy through more effective and/or cost-effective requirements.

In the interim period between adoption of the GBP and these code amendments, new city municipal facilities will be intended to be designed and constructed with all features noted as "required" in this program. Also, other projects that voluntarily provide all features noted as required plus two "optional" features will be eligible for the full suite of incentives identified in this GBP. Due to the fact that some of the proposed incentives will require amendments to Vancouver Municipal Code, the incentives will also necessarily be phased in over time.

APPLICABILITY

Unless specifically noted otherwise, these policies are intended to apply to: 1) all new construction and 2) redevelopment projects that trigger compliance with new state Building Energy Code requirements under Title 17 VMC. Based on stakeholder feedback and potential conflicts with other city policies or state law, it is appropriate for future code amendments to include certain exemptions or specific flexibility in how the Green Building policies are applied to affordable housing projects, restaurants/manufacturing uses, residential projects involving 1-6 units (missing middle housing), and marine terminal operations. Such identified areas for flexibility are described in this document.

GOAL 1: ENERGY AND PERFORMANCE

1.1 Improved Energy Efficiency

Intent: Eliminating carbon pollution is essential to avoiding the worst climate change impacts. Buildings' operational energy use is a prime contributor to local and global carbon pollution. Carbon pollution can be eliminated in new buildings by improving operational energy efficiency and switching to zero-carbon energy sources. Co-benefits include lower energy bills, improved indoor comfort, and better air quality.

Applicability	Approach	Status	Submission Requirements
Small Scale Residential	Achieve third-party certification for net-zero building operating emissions compliance through a green building standard such as USGBC Zero Carbon Standard, LEED Zero, or Living Building Challenge (Net Zero).	Incentive	Documentation required by the certification standard
Large Scale Residential	**Mandatory** Exceed WSEC building energy efficiency performance requirements using one or more of these compliance pathways: 1. Prescriptive pathway: Comply with the WSEC-C Prescriptive Path plus the Vancouver amendments applicable to the prescriptive path. 2. Modeling pathway: Comply with the WSEC-C Total Building Performance Path (i.e., full building modeling in design) plus the Vancouver amendments applicable to the Total Building Performance Path. 3. Target Performance pathway: Comply with the WSEC-C Target Performance Path (i.e., full modeling, plus prove with actual operational performance). **Incentive** In addition to selecting one of the mandatory pathways, optionally achieve third-party certification for net-zero building	Mandatory	Per the WSEC chosen pathway

	operating emissions compliance through a green building standard such as USGBC LEED Zero, or Living Future's Zero Carbon. Ensure that the minimum Vancouver energy efficiency requirements are met under these standards.		
Non-residential	Same as Large Scale Residential.	Mandatory	Per the WSEC chosen pathway
New Municipal	Same as Large Scale Residential.	Mandatory	Per the WSEC chosen pathway
Deed Restricted Affordable Housing	Exempt. City will revisit in 2030. Note that some developers will already be adhering to Evergreen Sustainable Development Standards.	Exempt	N/A

Notes

Detailed specifications of the Vancouver Amendments can be found in **Appendix C: Illustrative Draft Code Language.** The Illustrative Draft Code Language illustrates the technical direction and proposed specifications of the Vancouver Amendments and is included for informational purposes only. It demonstrates the proposed modifications to current Vancouver Municipal Code that would implement the Vancouver Amendments, but does not serve as final code language for adoption. The final code language to implement the Vancouver amendments will be developed through a subsequent code-writing process and reviewed for approval at a future date and will include a comprehensive public review and engagement process, pending policy adoption.

At a high level, the Vancouver Amendments address:

- Opaque Thermal Envelope Insulation: increased stringency in the R-value and U-value thermal performance.
- Fenestration Performance: increased stringency in the U-value thermal performance.
- Dimming Controls: additional dimming capabilities to reduce power consumption.
- Lighting Power Allowances: increased stringency regarding lighting power consumption.
- Energy Measure Credits: increased stringency in the valuation of mandatory credits.
- Commissioning: additional requirements for commissioning report documentation and the resolution of deficiencies.
- Renewable Energy: additional methods of compliance and exemption of affordable housing from requirement.
- Building Performance Factors (BPF): for projects pursuing the Total Building Performance compliance path (full energy modeling), increased stringency to BPF requirements for multi-family and hotel/motel projects.

- Limits on Substandard Building Envelopes: for projects pursuing the Total Building Performance compliance path (full energy modeling), the ability for higher-performing energy efficiency strategies to compensate for poorer-performing building envelope elements is further limited.
- Optional Target Performance Path: creates a new and optional compliance path which requires full energy modeling in design, requires achieving Building Performance Factors that are 12% stricter than the Total Building Performance option, and requires proving energy efficiency compliance during building operation secured with a financial performance bond.

Notes
The Washington State Energy Code-Commercial provides for multiple compliance pathways including:

- The Prescriptive Compliance Path (C401.2, Option 1). This pathway includes prescriptive performance requirements for building envelope, mechanical, and lighting systems and compliance with the Total System Performance Ratio requirement.
- The Total Building Performance Path, i.e., Full Energy Modeling (C401.2, Option 2). This pathway includes full energy modeling and compliance with the Building Performance Factors (BPF) which compares the proposed building's performance with a reference building of a similar function, location and geometry. This option, which is more complex to model, provides for increased design flexibility provided that the overall energy reduction requirements are met.
- Optional Appendices. At the discretion of the local jurisdiction, optional appendices, such as a Target Performance Path, may be adopted as a local amendment.

Vancouver's Green Building Program includes new local commercial energy code amendments affecting both the Prescriptive Compliance Path and the Total Building Performance Path. To provide a third compliance path, the Target Performance Path is included as a new local amendment to the Commercial Energy Code.

Resources

- Washington State Energy Code -Commercial (WSEC-C). The State's energy code provides the base direction and requirements for energy efficient new buildings.
- Vancouver Municipal Code Title 17. The City's Building Codes Ordinance.
- Current list of LEED Zero certification options can be found here: LEED Zero | U.S. Green Building Council
- Evergreen Sustainable Development Standard (ESDS): A building performance standard that all affordable housing projects that receive capital funds through the state Housing Trust Fund program must comply with.

1.2 All-Electric-Ready Buildings

Intent: Residents and businesses should have energy source options and be able to choose low-carbon electricity for all energy uses in the building now and in the future. This policy enables an easier, less expensive transition to heat pumps and electricity for space conditioning, water heating, and cooking even if the initial system or appliance were powered by fossil fuels.

Applicability	Approach	Status	Submission Requirements
Small Scale Residential	Ensure the building is 100% electricity-capable, including appropriate dedicated wiring and service for electricity use in all space and water heating and cooling equipment, cooking, appliances, and any other energy-using equipment.	Incentive	Electrical plans
Large Scale Residential	Same as Small Scale Residential	Mandatory	Electrical plans
Non-residential	Ensure the building is 100% electricity-capable, including appropriate dedicated wiring and service for electricity use in all space and water heating and cooling equipment, cooking, appliances, and any other energy-using equipment. Commercial kitchens are incentivized to meet this approach. The City will revisit this policy during the implementation of the 2024 WA State Energy Code update. Exemptions: ● Equipment or systems used for manufacturing and industrial processes. ● Commercial kitchens	Mandatory, Incentive for commercial kitchens	Electrical plans
New Municipal	Ensure buildings' heating, cooling, and domestic hot water equipment are able to operate using electricity and must not use fossil fuels (specialty equipment and process equipment excepted).	Mandatory	Electrical plans
Deed Restricted Affordable Housing	Exempt. City will revisit in 2030.	Exempt	N/A

Resources
This approach is additive to WSEC-C C401.3.6 Electrification readiness.

Notes
If the all-electric ready requirement were made mandatory for commercials kitchens post 2030, the City would offer an appeals process for circumstances where the kitchen requirement would be burdensome, for special circumstances, etc.

2.1 Embodied Carbon and Life Cycle Assessment

Intent: Often overlooked, building materials and construction practices contribute significantly to a building's total carbon pollution production. Reducing the carbon released in materials production and construction practices is essential to reducing buildings' contribution to local and global carbon pollution. A carbon pollution aware approach to construction can result in fewer materials used, saving costs. Low-carbon base building materials are typically near cost parity with standard base building materials.

Applicability	Approach	Status	Submission Requirements
Small Scale Residential	Nothing required.	N/A	N/A
Large Scale Residential	Comply with one of the following embodied carbon reduction paths: 1. Complete a Whole Building Life Cycle Assessment (WBLCA) of structures and enclosures that demonstrates 10-20% reduction in embodied emissions compared to a reference building. 2. Retain 45% or more (by area) of on-site existing structures and/or exterior materials. 3. Achieve 25-40% reduction in A1 to A3 (product stage) embodied carbon emissions for 90% of eligible materials considered in aggregate, compared to a reference project with the same type and quantity of eligible materials and using current industry average emissions data. Ambition increases every code cycle: **2025-2027** All buildings > 200,000 sf Path 1: 45% Path 2: 25% Path 3: 10% **2028-2030** All buildings > 100,000 sf Path 1: 45% Path 2: 30% Path 3: 15% **2030 onward** All buildings > 50,000 sf Path 1: 45% Path 2: 40% Path 3: 20% For developments with multiple buildings, the standard applies to the project as a whole, not to each individual building.	Incentive (2025-2029) Review for potential mandate in 2030	Path 1: Structures and materials retention report Path 2: Calculations report Path 3: WBLCA report

Non-residential	Same as Large Scale Residential. For developments with multiple buildings, the standard applies to the project as a whole, not to each individual building.	Incentive (2025-2029) Review for potential mandate in 2030	Path 1: Structures and materials retention report Path 2: Calculations report Path 3: WBLCA report
New Municipal	State-funded projects must comply with the Buy Clean and Fair Washington Act HB1103. Other municipal projects are required to comply with Large Scale Residential requirements. For developments with multiple buildings, the standard applies to the project as a whole, not to each individual building.	Mandatory	Description report, per Act HB1103 Path 1: Structures and materials retention report Path 2: Calculations report Path 3: WBLCA report
Deed Restricted Affordable Housing	Same as Large Scale Residential.	Incentive	N/A

Notes

For Path 2, the most current CLF Material Baselines report should be used as the standard for finding current industry average emissions data (2025 CLF North American Material Baselines - Carbon Leadership Forum)

A1-A3 construction material life-cycle stages:

A1: Raw material extraction and processing, processing of secondary material input (e.g. recycling processes).
A2: Transport to the manufacturer.
A3: Manufacturing.

All stages include the provision of all materials, products, and energy, as well as waste processing up to the end-of-waste state or disposal of final residues during the product stage. The assessment takes only the building and its parts into account, but not furniture or appliances, for example.

Resources

- US Department of Energy Embodied Carbon Reduction in New Construction Reference Guide. A brief, effective embodied carbon guide with an extensive list of tools and resources.

- One Click LCA website. This resource provides information and calculation tools for life cycle assessments and embodied carbon green building approaches

Athena Impact Estimator for Buildings. A free and industry-leading tool for whole-building life cycle assessments.

2.2 Sustainable Building Materials

Intent: Building material choices can have positive or negative local and global environmental, economic, and social life cycle impacts. Using sustainable building materials avoids resource extraction approaches that damage and contaminate ecosystems. It also encourages local economic activity and reduces the use of new raw materials.

Applicability	Approach	Status	Submission Requirements
Small Scale Residential	Taking the Large Scale Residential approach qualifies for incentives.	Incentive	N/A
Large Scale Residential	At least 25% (by cost) of the total value of permanently installed building products must meet the requirements for at least two of the responsible extraction criteria identified below: ● Extended producer responsibility. ● Bio-based materials. ● Wood products. Wood products must be certified by the Forest Stewardship Council or other USGBC-approved equivalent. ● Materials reuse. Reuse includes salvaged, refurbished, or reused products. ● Recycled content. Recycled content is the sum of post-consumer recycled content plus one-half the pre-consumer recycled content, based on weight. ● Products sourced (extracted, manufactured, and purchased) within 1,000 miles of the project site.	Incentive	As per LEED v4.1 BD+C MR Credit: Sourcing of Raw Materials
Non-residential	Same as Large Scale Residential	Incentive	As per LEED v4.1 BD+C MR Credit: Sourcing of Raw Materials
New Municipal	Same as Large Scale Residential	Mandatory	As per LEED v4.1 BD+C MR Credit: Sourcing of Raw Materials

Deed Restricted Affordable Housing	Same as Large Scale Residential.	Incentive	N/A

Notes
Responsible extraction criteria definitions are aligned with current LEED standards, including LEED v4.1 BD+C and LEED v5 Building Product Selection and Procurement:

Extended producer responsibility. Products purchased from a manufacturer (producer) that participates in an extended producer responsibility program or is directly responsible for extended producer responsibility. Products meeting extended producer responsibility criteria are valued at 50% of their cost for these calculations.
Bio-based materials. Bio-based products and materials other than wood must be tested using ASTM Test Method D6866 or equivalent method ISO 16620-2, or be certified to the USDA BioPreferred Voluntary Labeling Initiative that includes verification via ASTM 6866 testing. Exclude hide products, such as leather and other animal skin material.

- Bio-based products that meet the criteria above: value at 50% of cost multiplied by the biobased content of the product for these calculations.

Wood products. Wood products must be certified by the Forest Stewardship Council (not equivalent). Products meeting wood products criteria are valued at 100% of their cost for these calculations.
Materials reuse. Reuse includes salvaged, refurbished, or reused products. Products meeting materials reuse criteria are valued at 200% of their cost for the purposes of these calculations.
Recycled content. Products meeting the following recycled content criteria are valued at 100% of their cost for these calculations:

- Recycled content is the sum of post-consumer recycled content plus one-half the pre-consumer recycled content, based on weight.
- The recycled fraction of the assembly is then multiplied by the cost of assembly to determine the recycled content value.

Products sourced (extracted, manufactured, and purchased) within 100 miles of the project site are valued at twice their base contributing cost, up to a maximum of 200% of cost.

Life cycle information is available for most building products through environmental product declarations.

2.3 Electric Vehicle Charging

Intent: This City policy ensures that electricity used for electric vehicle (EV) charging is tracked separately from the building's total power consumption, supporting accurate energy reporting under Washington's Clean Buildings Performance Standard. Tracking can be accomplished either at the charging point or through the charger's software.

This policy does not require private development to include any additional electric vehicle (EV) charging stations beyond those already mandated by Washington State standards for EV charger installation and electric-ready spaces (as currently defined by WAC 51-50-0429).

Applicability	Approach	Status	Submission Requirements
Low Scale Residential	Nothing required beyond state code, which requires that each dwelling is EV-ready for minimum one charging unit.	Mandatory (state code)	N/A
Large Scale Residential	Developments must at minimum meet the electric vehicle charging requirements adopted by the State of Washington for the applicable development type, as those requirements exist on the adoptive date of this policy. Electricity used for EV charging must be tracked separately from the building's total power consumption. Tracking can be accomplished either at the charging point or through the charger's software.	Mandatory	Letter of commitment and architectural and electrical plans for parking areas and electrical rooms
Non-residential	Same as Large Scale Residential	Mandatory	N/A
New Municipal	Follow state code minimums (as those requirements exist on the adoptive date of this policy) for supplying public EV charging infrastructure in civic buildings. Same as Large Scale Residential for separate tracking for electricity used for EV charging. For municipal facility buildings, align with the fleet management strategy requirements. Consult with Clark PUD on managed (smart) charging options that may reduce the need for more expensive electrical equipment upgrades.	Mandatory	Architectural and electrical plans for parking areas and electrical rooms
Deed Restricted Affordable Housing	Same as Large Scale Residential	Mandatory	N/A

Notes

Electric Vehicle Smart Charging. By managing energy loads more effectively and participating in grid optimization, EV smart charging options contribute to lowering the need for expensive electrical equipment upgrades and maintenance. Clark PUD can coordinate with developers on integrating smart charging systems into projects.

The City may also consider advocating the State for a more nuanced approach to EV charger provision in new buildings, including allowances for different charger types.

GOAL 3: CLIMATE RESILIENCE

3.1 Renewable Energy Systems and Energy Storage

Intent: Local, renewable energy and distributed energy resources provide many benefits, including greening the electricity grid, improving energy resilience, reducing stress on the grid, lowering energy bills, and reducing building heating and cooling loads through systems such as rooftop solar, solar thermal, ground source heat exchange, and thermal energy networks.

Applicability	Approach	Status	Submission Requirements
Small Scale Residential	Provide a solar-ready zone of not less than 300 sf for one- and two-family dwellings. Provide a solar-ready zone of not less than 150 sf for each dwelling unit in a townhouse project of three stories or fewer in height and total floor area less than or equal to 2,000 sf.	Incentive	Architectural and electrical plans
Large Scale Residential	Comply with state code WAC-51-11C-41100 which requires new buildings or additions larger than 10,000 sf of gross conditioned floor area to include a renewable energy generation consisting of not less than 0.5W/sf multiplied by the sum of gross conditioned floor area.	State code + Incentive	Architectural and electrical plans

	Additionally, buildings of any size are incentivized to install a renewable energy system(s) consisting of not less than 0.75 W/sf multiplied by the sum of gross conditioned floor area; or, alternatively, install a ground-source heat pump (GSHP) or other ambient thermal energy system that provides the building's primary heating and cooling. Additionally, buildings of any size are incentivized to install energy storage capacity to reduce peak load demands.		
Non-residential	Same as Large Scale Residential	State code + Incentive	Architectural and electrical plans
New Municipal	Provide an on-site renewable energy system(s) that exceeds Washington State Building Code requirements by 75%; or, alternatively, install a ground-source heat pump (GSHP) or other ambient thermal energy system that provides the building's primary heating and cooling. If site conditions do not allow on-site systems, participation in a community solar project or other renewable power purchase may be used to meet this target. Additionally, procure renewable power for the energy consumption not met by on-site renewables. Ensure back up power is provided by generators using R99 fuel or renewable energy battery or thermal energy storage devices or a combination of these options.	Mandatory	Architectural and electrical plans and purchasing agreement
Non-residential Industrial	For buildings or additions larger than 10,000 sf of gross conditioned floor area with process load applications,[1] consult with Clark PUD on the potential to host community solar projects. Explore other opportunities for renewable energy (additional opportunities may merit incentives).	Mandatory	Confirmation letter from Clark PUD as proof of consultation, with description of the outcome of the consultation process
Large and/or multi-building developments	For master planned developments, assess the viability of district energy systems and microgrids.	Mandatory	District energy, microgrid, and shared renewable energy generation equipment assessment report

[1] Process load applications are a manufacturing, industrial, or commercial procedure or activity where the primary purpose is other than conditioning spaces and maintaining comfort and amenities for the occupants of the building.

	For master planned developments, assess the viability of district energy systems, microgrids, and shared renewable energy generation equipment (e.g., community solar).		
Deed Restricted Affordable Housing	Same as Large Scale Residential	State code + Incentive	Architectural and electrical plans

Notes

The approach for Small Scale Residential buildings adopts Appendix T—Solar-ready provisions-detached one- and two-family dwellings and townhouses of the WAC Title 51, the WAC-51-51-60106.

Renewable energy systems may include:
On-site Renewable Electricity Generation

- Solar photovoltaic (PV) systems – rooftop, façade-integrated, or ground-mounted.
- Solar thermal systems – for domestic hot water or low-temp heating loads.
- Wind turbines – small/medium-scale, where feasible.
- Biogas/biomass systems – anaerobic digestion or biomass CHP (less common).

Renewable Thermal Energy Systems (not electricity-generating, but considered renewable energy sources)

- Ground-source (geothermal) heat pumps (GSHPs) – use the steady temperature of the earth for heating and cooling; provide renewable thermal energy but do not generate electricity.
- Thermal Energy Networks (TENs) – shared, networked geothermal/ambient-loop systems.

Air-source heat pumps are not included in this category, as usage of this equipment is addressed in existing State code.

3.2 Refuge Area

Intent: Vancouver's primary climate risks are wildfire smoke and extreme heat, both of which can have severe negative health impacts. Incorporating refuge areas in buildings during design and construction ensure that occupants have safe spaces to shelter-in-place during emergencies, disasters, and power outages, with access to basic amenities.

Applicability	Approach	Status	Submission Requirements

Small Scale Residential	Nothing required	N/A	N/A
Large Scale Residential	For buildings greater than 10 stories, include a communal refuge area with heating, cooling, potable water, and 72-hour back-up power generation, preferably from renewable sources, for shelter-in-place during emergencies such as heat waves, power outages, and severe storms.	Incentive	Architectural plans
Non-residential	Nothing required	N/A	N/A
New Municipal	New municipal facilities that contain central amenities such as, lobby, gym space, or meeting rooms, to provide temporary shelter for vulnerable residents. Common refuge areas are temporarily shared, lit spaces where vulnerable residents can gather to stay warm or cool, charge cell phones and access the internet, safely store medicine, refrigerate basic food necessities, access potable water and toilets. Provide a minimum of 72-hours back-up power generation for critical areas and functions. Ensure back up power is provided by generators using R99 fuel or renewable energy battery or thermal energy storage devices or a combination of these options.	Mandatory (per City policy)	Architectural plans
Deed Restricted Affordable Housing	Same as Large Scale Residential	Incentive	Architectural plans

Notes
Communal refuge areas may serve as building amenity spaces during normal operations. The backup power system should provide electricity to the refuge area and to the ground floor or first two floors, as appropriate to the building's use. It should supply power to essential systems—such as security, domestic water pumps, sump pumps, at least one elevator, and boilers or hot water pumps—based on the building's design, amenities, and the needs the refuge area is intended to meet during a prolonged power outage.

Resources
- City of Toronto, October 2016. Minimum Backup Power Guidelines for MURBs: Voluntary Performance Standards for Existing and New Buildings.

3.3 Cool Roofing

Intent: Maximizes the utility of roof spaces while addressing emissions reduction goals, stormwater management objectives, and urban heat island issues.

Applicability	Approach	Status	Submission Requirements
Small Scale Residential	Roofs are encouraged to have highly reflective roofs, green roofs, or solar panels, or a mix of sustainable roof features on 100% of the building's non-mechanical roof space. Pitched roofs are exempt from this.	Incentive	Architectural plans
Large Scale Residential	100% of non-mechanical occupied roof space to have highly reflective roofs and incentivized to install one or a mix of green roofs or solar panels (exceeding 3.1 requirements). Steeper pitched roofs (greater than a 2:12 pitch) are exempt from this requirement but encouraged to use lighter-colored or highly reflective materials where feasible.	Mandatory + Incentive	Architectural plans
Non-residential	Same as Large Scale Residential	Mandatory + Incentive	Architectural plans
New Municipal	Require 100% of non-mechanical occupied roof space to have one or a mix of sustainable roof features. Steeper pitched roofs (greater than a 2:12 pitch) are exempt from this requirement but encouraged to use lighter-colored or highly reflective materials where feasible.	Mandatory (per City policy)	Architectural plans
Deed Restricted	Same as Large Scale Residential	Mandatory + Incentive	Architectural plans

Affordable Housing			

Notes

The sustainable roof features for consideration in City of Vancouver are:

- **Highly reflective roof:** Uses high albedo or light-colored materials, with a Solar Reflective Index (SRI) of 78 or over, to reflect most sunlight instead of absorbing it as heat into the building. Although effective at first, roofing materials collect dirt, dust, and particulates that reduce the effectiveness of high albedo materials. Thus, a maintenance plan must be in place to routinely clean the surfaces.
- **Green roof:** Also known as a living roof, roof gardens and vegetated roof, is a roofing system that incorporates vegetation, soil, and drainage layers to support plant growth on the roof surface. Green roofs provide numerous benefits, including improved stormwater management, reduction of urban heat island effect, improved air quality, energy savings, habitat creation, and aesthetic enhancement.
- **Rooftop solar panels:** Solar panel systems generate carbon-free electricity that lowers utility bills, relieves strain on the electricity grid, and reduces GHG emissions.

3.4 Indoor Temperature

Intent: Climate projections suggest increasing risk for heat waves and wildfires for Vancouver, which exacerbates health issues such as heat-related illnesses, respiratory problems, and dehydration. Relying solely on mechanical cooling systems, like air-conditioners, adds stress to the electric grid and, if the grid is powered by fossil fuels, contributes to carbon pollution. Incorporating passive cooling solutions like natural ventilation, shading, operable windows, and thermal insulation during the design process will help buildings maintain comfortable indoor temperatures without being over-reliant on energy-intensive cooling equipment.

Applicability	Approach	Status	Submission Requirements
Small Scale Residential	Ensure all regularly occupied spaces in dwelling units are equipped with operable windows. Ensure dwellings can consistently maintain a minimum of 60°F in the winter months and a maximum of 80°F in the summer months.	Incentive	Architectural and mechanical plans, as well as detailed explanations of technological and passive design solutions that achieve this outcome
Large Scale Residential	Ensure all regularly occupied spaces in dwelling units are equipped with operable windows.	Mandatory	Architectural and mechanical plans, including statement from mechanical engineer of record indicating compliance with ASHRAE 55-2017

	Ensure dwellings can consistently maintain a minimum of 60°F in the winter months and a maximum of 80°F in the summer months.		
Non-residential	Ensure building systems (inclusive of mechanical systems, control systems, and building envelope can consistently maintain a minimum of 60°F in the winter months and a maximum of 80°F in the summer months. For industrial buildings, the requirement applies only to conditioned spaces (such as office areas).	Mandatory	Architectural and mechanical plans, including statement from mechanical engineer of record indicating compliance with ASHRAE 55-2017
New Municipal	Same as Non-residential	Mandatory (per City policy)	N/A
Deed Restricted Affordable Housing	Ensure all regularly occupied spaces in dwelling units meet can consistently maintain a minimum of 60°F in the winter months and a maximum of 80°F in the summer months.. If meeting this standard in each dwelling unit would make the project financially infeasible, provide a central, accessible gathering space (such as a lobby or common room) that meets this standard. Affordable housing projects that are too small to include a central space and can demonstrate that constructing one would make the project infeasible are exempt from this requirement.	Mandatory; exemption for demonstrated financial infeasibility for some projects	Architectural and mechanical plans, including statement from mechanical engineer of record indicating compliance with ASHRAE 55-2017

3.5 Enhanced Air Filtration

Intent: Reduce indoor occupants' exposure to smoke from wildfires, which contain fine particulate matter and other pollutants that can cause respiratory symptoms and aggravate chronic heart and lung diseases.

Applicability	Approach	Status	Submission Requirements
Small Scale Residential	Ensure ventilation and filtration systems are compatible with MERV 13-rated filtration media. Higher-efficiency filters do not need to be installed at all times but the system must be capable of accommodating them during air quality events.	Incentive	Mechanical plans

Large Scale Residential	Ensure ventilation and filtration systems are compatible with MERV 13-rated filtration media. Higher-efficiency filters do not need to be installed at all times but the system must be capable of accommodating them during air quality events.	Mandatory	Mechanical plans
Non-residential	Same as Large Scale Residential.	Mandatory	Mechanical plans
New Municipal	Same as Large Scale Residential.	Mandatory (per City policy)	Mechanical plans
Deed Restricted Affordable Housing	Same as Large Scale Residential. If meeting this standard in each dwelling unit would make the project financially infeasible, provide a central, accessible gathering space (such as a lobby or common room) that meets this standard. Affordable housing projects that are too small to include a central space and can demonstrate that constructing one would make the project infeasible are exempt from this requirement.	Mandatory; exemption for demonstrated financial infeasibility for some projects	Mechanical plans.

3.6 Cool Surfaces

Intent: Reduce urban heat island effect by increasing shade, incorporating reflective paving materials, and increasing landscape areas. Reducing urban heat island effect reduces airborne toxins, decreases building cooling demand, and improves indoor and outdoor comfort.

Applicability	Approach	Status	Submission Requirements
Small Scale Residential	Ensure 50% of non-roof hardscape are cool surfaces. Cool surfaces can be highly reflective/light-colored, highly permeable, vegetated, shaded, or a mix of these features.	Incentivize	Site plan
Larg Scale Residential	Same as Small Scale Residential. For vegetation planting standards, refer to VMC 20.770 and 20.925 (Tree and Landscape Requirements).	Mandatory	Site plan

Non-residential	Same as Small Scale Residential. For vegetation planting standards, refer to VMC 20.770 and 20.925 (Tree and Landscape Requirements).	Mandatory	Site plan
New Municipal	Same as Small Scale Residential. For vegetation planting standards, refer to VMC 20.770 and 20.925 (Tree and Landscape Requirements).	Mandatory (per City policy)	Site plan

Notes

Cool surface features for consideration:[2]

- **Highly reflective surface:** Uses high albedo paving materials or with an initial solar reflectance (or albedo) of at least 0.33 or SRI of 29+. Paints with light-colored additives and most types of concrete that meet the reflectance standards may satisfy this requirement.
- **Highly permeable surface:** Uses grid pavement with at least 50% perviousness.
- **Vegetated surfaces:** Uses existing plant material or installs plants that provide shade over paving areas on the site within 10 years of planting. Plants must be in place at the time of occupancy and cannot include artificial turf.
- **Shaded surfaces:** Provide shade with architectural devices or structures. If the device or structure is a roof, it shall have an aged solar reflectance value of at least 0.28. If the device or structure is not a roof, or if aged solar reflectance information is not available, it shall have at installation an initial solar reflectance of at least 0.33. Structures can be covered by energy generation systems such as solar thermal collectors, photovoltaics, and wind turbines.

Marine terminal legal/safety conflict exemption.

Industrial properties that support marine terminal operations may be eligible for an administrative adjustment or exception from site-related (vs. building-related) green building standards if the applicant demonstrates that compliance would create a direct conflict with applicable maritime, port, or federal safety and security requirements. To qualify for such relief, the applicant shall submit evidence of the conflict in writing to the Planning Official. Any standards so adjusted or exempted shall be documented in the site plan staff report.

[2] Summarized from information on the Cool Roof Rating Council website.

4.1 Bird-Friendly Design

Intent: Provide bird-friendly environments and reduce bird injury and fatalities caused by collisions with buildings.

Applicability	Approach	Status	Submission Requirements
Small Scale Residential	Nothing required.	N/A	N/A
Large Scale Residential	Design and construct the building, site structures, glazed corners, glazed railings, and fly-through conditions to achieve an American Bird Conservancy's (ABC) threat factor of 30 or below for high collision risk portions of the building. Qualifying bird friendly materials include: • Glazing that incorporates physical signals to birds created by fritting, overlays/applications, and UV coatings; • Non-glazing, opaque and non-reflective materials such as concrete; • Glazing behind qualifying sunshades and screens; and, • Glazing to which materials such as qualifying window films have been applied. The building and fenestration strategies include external screens, decorative grills, screens, netting, louvers, shutters or exterior shades placed close to the outside glass surface, with openings that approximate the 2x4 rule.	Incentive	• Bird Collision Rating spreadsheet • Elevation Plan depicting location of all materials and screening devices with specification details
Non-residential	Same as Large Scale Residential	Incentive	• Bird Collision Rating spreadsheet • Elevation Plan depicting location of all materials

			and screening devices with specification details
New Municipal	Same as Large Scale Residential	Mandatory (per City policy)	• Bird Collision Rating spreadsheet • Elevation Plan depicting location of all materials and screening devices with specification details

Notes
For glazing treatments, use only glazing and materials listed in the American Bird Conservancy's (ABC) Threat Factor Database with a Threat Factor of 30 or below, or meet alternative prescriptive criteria outlined by the ABC. All glazed corners or fly-through conditions must also have a Threat Factor of 30 or below.

Resources

- Threat Factor Database. American Bird Conservancy's list of qualifying materials.
- Innovation: for Bird Collision Deterrence. U.S. Green Buildings Council provides steps for calculating Bird Collision Rating

4.2 Dark-Sky Lighting

Intent: Outdoor lighting regulation is required to balance the need for safety and security while minimizing negative impacts such as light pollution, energy waste, and disturbance to wildlife.

Applicability	Approach	Status	Submission Requirements
Small Scale Residential	Ensure the use of lighting standards, fixtures, luminaries, and lighting designs (including photocells and timing mechanisms to limit lighting when daylight is adequate) adhere to the DarkSky International standards	Incentivized	Electrical and lighting plans
Large Scale Residential	Require the use of lighting standards, fixtures, luminaries, and lighting designs (including photocells and timing mechanisms to limit lighting when daylight is adequate) to adhere to the DarkSky International standards.	Mandatory	Electrical and lighting plans
Non-residential	Same as Large Scale Residential	Mandatory	Electrical and lighting plans
New Municipal	Same as Large Scale Residential Additionally, ensure new streetlights are shielded to avoid uplighting and reduce light trespass and that lighting temperatures adhere to the DarkSky International standards.	Mandatory (per City policy)	Electrical and lighting plans
Deed Restricted Affordable Housing	Same as Large Scale Residential	Mandatory	Electrical and lighting plans

Notes:
Marine terminal legal/safety conflict exemption.
Industrial properties that support marine terminal operations may be eligible for an administrative adjustment or exception from site-related (vs. building-related) green building standards if the applicant demonstrates that compliance would create a direct conflict with applicable maritime, port, or federal safety and security requirements. Any standards so adjusted or exempted shall be documented in the site plan staff report.

Resources

- Responsible outdoor lighting. DarkSky Association guidelines for responsible outdoor lighting.

- International DarkSky Association Fixture Seal of Approval. Provides DarkSky Compliant resources, retailers, and database.

4.3 Tree, Vegetation, and Soil Conservation

Intent: Enhance tree planting, vegetation, and soil quality to improve air quality, increase tree canopy coverage, increase biodiversity, and minimize urban heat islands.

Applicability	Approach	Status	Submission Requirements
Small Scale Residential	Not required.	N/A	N/A
Large Scale Residential	Use plantings with sustainable features like long-lived, large form, drought-tolerant, climate-resilient, low irrigation, and/or native to the Pacific Northwest. Achieve the City's recognition for Silver Leaf Status. **Incentive:** achieve Gold Leaf Status for tree coverage.	Mandatory + Incentive	Site plan
Non-residential	Same as Large Scale Residential. For industrial sites, achieve Silver Leaf Status.*	Mandatory + Incentive	Site plan
New Municipal	Use long-lived, large-form, drought-tolerant, and climate-resilient plantings, preferably native to the Pacific Northwest, that require minimal irrigation, while retaining the existing mature canopy where possible. For commercial or residential sites, achieve the City's recognition for Gold Leaf Status for tree coverage. For industrial sites, achieve Silver Leaf Status.	Mandatory (per City policy)	Site plan
Deed Restricted Affordable Housing	Same as Large Scale Residential	Mandatory	Site plan

Large and/or multi-building developments	Planned residential/commercial developments are required to achieve the City's recognition for Silver Leaf Status for tree coverage.	Mandatory	Site plan

*__Notes:__

Marine terminal legal/safety conflict exemption.

Industrial properties that support marine terminal operations may be eligible for an administrative adjustment or exception from site-related (vs. building-related) green building standards if the applicant demonstrates that compliance would create a direct conflict with applicable maritime, port, or federal safety and security requirements. Any standards so adjusted or exempted shall be documented in the site plan staff report.

Resources

- Tree Canopy Achievement Program. The City of Vancouver's guidance to achieving tree canopy Bronze, Silver and Gold Leaf statuses.
- Tree Plan/Tree Removal. The City of Vancouver's submittal checklist for tree plans. This document will be updated to reflect the requirements.

Green Building Incentives

The Green Building Program includes a set of proposed incentives designed to encourage developers to voluntarily incorporate green building features at the levels described in this document. These incentives will initially apply to all green building features (see Table 1) until VMC 17 (Building Code) and VMC 20 (Land Use and Development Code) are updated to specify which features are mandatory. Once those updates occur, incentives are intended to only apply to optional features.

Additional incentives may be added over time as they are identified, vetted by staff, and approved by Council.

Eligibility for Incentives:
Prior to adoption of the above-referenced code updates, all types of projects not subject to a development agreement will be eligible for the full suite of incentives - as adopted - if all features noted below as "required" are provided plus at least two "optional" features.

The current suite of incentives includes:

1. Expedited Land Use, Engineering, and Building Permit review
2. 20% building permit fee rebate (maximum $20,000)
3. Deferral of System Development Charges (SDC) payment until Temporary Certificate of Occupancy (TCO)
4. Deferral of Park Impact Fee (PIF) payment until TCO
5. Deferral of Transportation Impact Fee (TIF) payment until TCO
6. 12-foot height bonus where allowed by the Federal Aviation Administration
7. Eligibility for the City Green Building Design Awards Program

Optional vs. Required Features

Table 1 identifies which green building features are intended to be mandatory once VMC 17 and 20 are updated and which features will remain optional and eligible for incentives.

Eligibility for Incentives:
Prior to adoption of the above-referenced code updates, all types of projects not subject to a development agreement will be eligible for the full suite of incentives - as adopted - if all features noted below as "required" are provided plus at least two "optional" features.

Development Agreements Exception:
In projects governed by development agreements, Council may apply the "future" required features as project requirements, exercising discretion through the agreement. Council may also decide which incentives the project that is subject to the development agreement may receive.

Table 1. Proposed Optional (Incentivized) vs. Required Features

Green Building Feature	Required or Optional	Required Under D.A.?

Bird Friendly Design	Optional	Subject to Council discretion
Renewable Energy Generation	Optional	Subject to Council discretion
Building Refuge Area	Optional	Subject to Council discretion
Use of Low-Carbon Construction Materials	Optional	Subject to Council discretion
Use of Sustainable Building Materials	Optional	Subject to Council discretion
Cool Roofing	Optional	Subject to Council discretion
Indoor Temperature Control	Required*	Yes
Dark Sky Lighting	Required	Yes
EV Charging (tracked separately)	Required	Yes
Cool Site Surfaces	Required	Yes
All-Electric Ready Buildings	Required**	Yes
Climate Adapted Vegetation	Required	Yes
10%+ Improved Energy Efficiency over State Standard	Required	Yes
Air Filtration – MERV 13 Compatible or Equivalent	Required***	Yes

* Except for industrial uses; affordable housing projects with 100% units at 80% AMI may satisfy this requirement through a central accessible gathering space with temperature control.
** Except for restaurant or light/heavy manufacturing uses, for which all-electrification would be incentivized.
*** Affordable housing projects with 100% units at 80% AMI may satisfy this requirement through a central accessible gathering space with air filtration.

Implementation of Incentives

The Green Building Program will be implemented in phases, beginning with adoption by Council and continuing through updates to the City's land use and building codes. Some of the proposed incentives will require subsequent action by City Council to implement. The schedule below outlines key milestones and incentive-related actions.

December 2025
Council adoption of the Green Building Program by resolution, establishing policy direction and implementation steps, including the initial incentives.

- Until green building features are made mandatory through amendments to VMC Title 17 or Title 20, the program will remain incentive-based to encourage voluntary inclusion of green features.

- To qualify for the full suite of incentives prior to mandatory adoption, projects must provide all features listed as "required" in Table 1, plus at least two additional optional features.

December 2025 – February 2026

- Council adoption of key incentives by ordinance:
  - Deferral of System Development Charges (SDC) to Temporary Certificate of Occupancy (TCO)
  - Deferral of Transportation Impact Fee (TIF) to TCO
  - Deferral of Park Impact Fee (PIF) to TCO
  - Building permit fee rebate
- Expedited Land Use, Engineering, and Building Plan review to be administratively implemented by all development review-related departments (Community Development, Public Works, Fire) for projects providing all "required" features plus at least two "optional" features.
- Creation and promotion of the City Green Building Design Awards Program by Community Development Department.

May – June 2026 (TBD)

- Adoption of site-related requirements through the comprehensive update to VMC Title 20.
- Adoption of the 12-foot height bonus incentive as part of the Title 20 update.

January – March 2027 (TBD)

- Adoption of building-related requirements through the next scheduled update of VMC Title 17 (City Building Code), following the State Building Code Council's adoption of the 2024 State Building Code updates (currently scheduled for November 2026).

November – December 2027

- Announcement of the first City Green Building Design Awards for 2026/27 projects.

Looking ahead

As we move forward with implementation of the Green Building Program, city staff will keep a close eye on development applications to see how these policies work in practice. Staff will continue meeting with builders,

property owners and other stakeholders to understand what's working well and what needs adjustment. This ongoing feedback will help us make sure the program is practical, effective and achievable.

Right now, our ability to offer financial or procedural incentives for green building is limited. With fewer federal incentives, such as those for residential solar installations, it's important that we look for new funding options at the state or local level. Finding creative funding opportunities and building partnerships will help keep sustainable development within reach for more projects and more people.

The City will also keep investing in education and local capacity. That means helping builders and developers learn about new technologies, encouraging the use of locally sourced, low-carbon materials and supporting training programs that prepare workers for green jobs. By building knowledge, skills and stronger local markets, we can help create a community where sustainable development is the standard—not the exception.

Attachment A

Initial Green Building Program proposal (Prepared by Sustainable Solutions Group, Inc.)
Prepared by Sustainable Solutions Group, Inc.
January 2025

Attachment B

Green Building Financial Analysis
prepared by BAE Urban Economics

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Appendix A

Initial Green Building Program proposal (Prepared by Sustainable Solutions Group, Inc.) Prepared by Sustainable Solutions Group, Inc.
January 2025

CITY OF Vancouver WASHINGTON

DRAFT Green Building Program

Prepared by SSG, Dave Walsh Consulting, and Farallon Consultants Limited

January 2025

Draft V4

Disclaimer

Reasonable skill, care and diligence has been exercised to assess the information acquired during the preparation of City of Vancouver's Green Building Program, but no guarantees or warranties are made regarding the accuracy or completeness of this information. This document, the information it contains, the information and basis on which it relies, and the associated factors are subject to changes that are beyond the control of the author. The information provided by others is believed to be accurate but has not been verified.

The analysis has been prepared as an internal document for the City of Vancouver and was developed based on information gathered through best practices research, technical and financial analysis, and feedback received throughout the engagement period.

The authors do not accept responsibility for the use of this analysis for any purpose other than that stated above, and do not accept responsibility to any third party for the use, in whole or in part, of the contents of this document. This analysis applies to the City of Vancouver and cannot be applied to other jurisdictions without further analysis. Any use by the City of Vancouver, its sub-consultants or any third party, or any reliance on or decisions based on this document, are the responsibility of the user or third party.

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Abbreviations

CAF	Climate Action Framework
CO2e	Carbon dioxide equivalent
CPUD	Clark Public Utilities District
EV	Electric vehicle(s)
EPA	United States Environmental Protection Agency
FTE	Full-time equivalent staff
GBP	Green Building Program
GHG	Greenhouse gas
HVAC	Heating, ventilation, and air-conditioning
LEED	Leadership in Energy and Environmental Design
LEED BD+C	LEED Building Design and Construction
MTCO2e	Metric tons carbon dioxide equivalent
MW	Mega Watts
sf	Square-feet or square footage
SMC	Seattle Municipal Code
solar PV	Solar photovoltaics
SRI	Solar reflective index
USGBC	United States Green Building Council
VMC	Vancouver Municipal Code
WAC	Washington Administrative Code
WSEC	Washington State Energy Code
WSEC-C	Washington State Energy Code -Commercial

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Definitions

Air pollution	Degradation of air quality with negative effects on human health or the natural or built environment due to substances (gases, aerosols, particulates) that have a harmful effect on human health.
Carbon dioxide	A naturally occurring gas, CO2 is also a by-product of burning fossil fuels (such as oil, gas, and coal), of burning biomass (e.g., wood), of land-use changes (LUC), and of industrial processes (e.g., cement production). It is the principal human-made greenhouse gas (GHG) that affects the Earth's temperature balance.
Carbon neutral	The state when GHG emissions produced are equal to GHG emissions reduced and sequestered (taken out of the atmosphere).
Carbon pollution	The carbon dioxide and other greenhouse gases added to the atmosphere through human activity.
Climate change	The Framework Convention on Climate Change (UNFCCC) defines climate change as: 'a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.'
District energy	Connecting multiple buildings to a single source of heating and/or cooling.
Ecosystem services	Ecological processes or functions having monetary or non-monetary value to individuals or society at large. These are frequently classified as (1) supporting services such as productivity or biodiversity maintenance, (2) providing services such as food or fiber, (3) regulating services such as climate regulation or carbon sequestration, and (4) cultural services such as tourism or spiritual and aesthetic appreciation.
Energy efficiency	Using appropriate technologies (physical or equipment) and refining operations to work optimally in order to minimize energy use while maintaining the desired operation.
Equity	The principle of fairness in burden sharing and a basis for understanding how the impacts and responses to climate change, including costs and benefits, are distributed in and by society in more or less equal ways. It is often aligned with ideas of equality, fairness and justice, and applied with respect to equity in the responsibility for, and distribution of, climate impacts and policies across society, generations, and gender, and in the sense of who participates and controls the processes of decision-making.
Extreme weather event	A destructive and/or dangerous weather event that is historically rare (but can be increasingly common under climate change conditions) at a particular place and time of year.
Fossil fuels	Carbon-based fuels from fossil hydrocarbon deposits, including coal, oil, and natural gas.

Greenhouse gas (GHG)	Atmospheric gases, both natural and human-made, that absorb and emit heat. This property causes the greenhouse effect. Water vapor (H2O), carbon dioxide (CO2), nitrous oxide (N2O), methane (CH4) and ozone (O3) are the primary GHGs in the Earth's atmosphere. The increased presence of these and other GHGs in the atmosphere are the primary causes of climate change.
Heating, ventilation, and air conditioning (HVAC)	Heating, ventilation and air conditioning technology is used to control temperature and humidity in an indoor environment, providing thermal comfort and healthy air quality to the occupants.
Impacts	The consequences of realized risks on natural and human systems, where risks result from the interactions of climate-related hazards (including extreme weather and climate events), exposure, and vulnerability. Impacts generally refer to effects on lives; livelihoods; health and well-being; ecosystems and species; economic, social and cultural assets; services (including ecosystem services); and infrastructure. Impacts may be referred to as consequences or outcomes and can be adverse or beneficial.
Lock-in	A situation in which the future development of a system—including infrastructure, technologies, investments, institutions, and behavioral norms—is determined or constrained ('locked in') by historic developments.
Municipal buildings	In this context, buildings and facilities owned and operated by the City of Vancouver.
Net-zero emissions	Net-zero emissions are achieved when human-made GHG emissions in the atmosphere over a specific time period do not exceed human-made removals of greenhouse gases in the same time period.
Resilience	The capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure while also maintaining the capacity for adaptation, learning, and transformation.
Well-being	A state of existence that fulfills various human needs, including material living conditions and quality of life, as well as the ability to pursue one's goals, to thrive, and feel satisfied with one's life. Ecosystem well-being refers to the ability of ecosystems to maintain their diversity and quality.

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1 | The Context

Addressing Carbon Pollution

In December 2022, the City of Vancouver established one of the nation's most ambitious climate action goals: an 80% reduction in community and corporate greenhouse gas (GHG) emissions by 2030, with carbon neutrality targeted by 2040. This landmark commitment underscores Vancouver's leadership in combating climate change and fostering sustainability.

The Climate Action Framework

Central to Vancouver's strategy is the Climate Action Framework (CAF), emphasizing emissions reduction in buildings and transportation while promoting efficient land use and resilient natural systems. The CAF reported that the building sector is the second largest emissions source in Vancouver, generating 28% of Vancouver's carbon pollution in 2019. The CAF identified two strategies and eleven associated actions that specifically address emissions from the buildings and energy sector (Box 1).

Box 1. Green building-related CAF Strategies and Actions.

Strategy BE-1. Increase use and storage of renewable energy while reducing consumption
BE-1 Actions:

1. Community energy efficiency incentives
2. Energy efficiency upgrades for existing commercial buildings
3. Clean energy financing
4. Solar incentives
5. 100% renewable energy for municipal buildings
6. Natural gas demand management
7. Green building policy (public sector)
8. Green building policy (private sector)
9. Resilient energy grid
10. Municipal energy and water savings

Strategy BE-2. Decarbonize homes, businesses, and other buildings
BE-2 Actions:

11. Home electrification incentives
12. Commercial building electrification incentives
13. Heat pumps in new commercial, multi-family, and single-family residential buildings
14. All-electric incentives for new residential development
15. Natural gas carbon intensity
16. Contractor training for electric transition

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Looking to the Not-too-distant Future

Vancouver is rapidly growing and is expected to add 38,000 more housing units by 2045.[1] The Green Building Program (GBP) is a pivotal opportunity for the City to address its climate goals and "get it right" from the start by embedding sustainability at the core of planning, design, construction, and management of new development. This will have a beneficial impact on public health, social equity, local economic development, climate change resilience, resource use, and the overall livability of Vancouver's communities.

This report summarizes the work done to develop green building strategies for new construction and existing municipal buildings.

Addressing carbon pollution in buildings is a two-pronged approach: 1) requiring new buildings to be carbon neutral or positive, and 2) reducing emissions from existing buildings through retrofits. Requiring new construction to be high performance avoids the lock-in problem that many existing buildings suffer where buildings are constrained into carbon emitting systems, and ensures that future development does not adversely impact the city's progress toward meeting emission reduction targets. Given that the majority of building-related carbon pollution will continue to be produced by the operations of existing buildings, energy efficiency retrofits are needed to achieve the greenhouse gas emission reductions goals identified in CAF.

The Green Building Program Opportunity

The Green Building Program focuses on requirements and incentives for new buildings, aiming to achieve zero emission buildings without creating undue burdens on design teams, developers, contractors, and City officials. It aligns Vancouver's new building efforts with those of other progressive jurisdictions. It works to create equitable access to the benefits of new green buildings, encourage modern and improved energy and transportation options, and provide resilience to climate change impacts like extreme heat and wildfire impacts. Vancouver's green building direction will create job and sales opportunities.[2] Created with the input of key parties across the community, business, building, and government sectors, the Green Building Program is a balanced, beneficial approach to new buildings in this growing city.

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[1] Modeling projections from City of Vancouver Comprehensive Plan Update

[2] U.S. Bureau of Labor Statistics article on Careers in Green Construction and USGBC's article on Benefits of Green Buildings share statistics on jobs created by green construction. The National Association of Realtors 2024 Realtors and Sustainability Report show a consistently upward trend that more home buyers are prioritizing green features."

2 | An Evidence-Based, Community-Informed Process

The Green Building Program was developed with a combination of extensive literature review, best practices research, energy and emissions scenario modeling, financial modeling, and engagement with interested and affected parties. These efforts and inputs have contributed to a balanced, well-considered, and effective strategy that will promote sustainable growth of high-performance buildings within Vancouver while protecting its citizens from the impacts of climate change.

Research and Technical Analysis

The existing federal, state, and local contexts were researched, as well as best green building practices in the region and in other jurisdictions. Municipalities throughout Washington were consulted on their experiences with green building strategies and their adoption of all or portions of the Seattle Building Code, which exceeds the state code for energy efficiency and other green building requirements in new buildings. This research helped inform the GBP approaches.

Scenario modeling was conducted to determine the energy demand and emissions production effects of GBP approaches versus today's building code and the planned state code. Each scenario used a projection of 46,800 new homes and 38 million sf of new commercial buildings by 2050 (38,000 units by 2045). The scenarios are described as:

1. **Today's code:** uses today's building and energy codes requirements from now until 2050.
2. **State code progression:** uses the planned progression of the state codes, which make new buildings 9% more energy efficient compared to 2006 code every 3 years until 2031, held constant after that.
3. **GBP approaches:** uses GBP approaches in all new buildings to achieve a 40% increase in energy efficiency over 2006 code by 2030, held constant after that. This scenario also assumes increasing the use of heat pumps in new buildings for heating and cooling, reaching 100% of new buildings in 2030. It also assumes 26.6 MW of solar PV capacity will be added to the new building stock by 2050.

Building stock energy demand modeling results are presented in Figure 1. Modeling demonstrates that if today's code were held constant, energy use would increase 44% by 2050 over 2021 levels (Figure 1, green line). Even under the ambitious state codes, new buildings would increase energy use 23% by 2050 over 2021 levels (Figure 1, blue line). Under GBP approaches, the total energy use of the entire building stock only increases marginally: 3% by 2050 over 2021 levels (Figure 1, orange line). This demonstrates that GBP approaches exceeding the state code are effective at increasing energy efficiency in new buildings.

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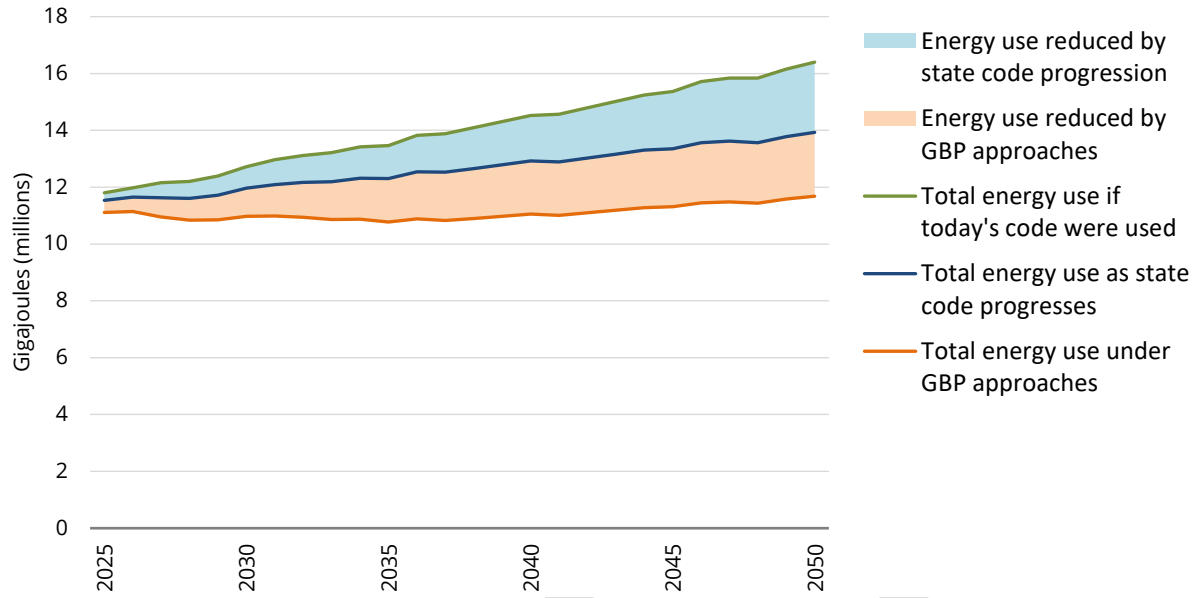

Figure 1. Total modeled energy use for Vancouver's building stock in the coming decades for 3 scenarios.

Building stock emissions production are presented in Figure 2. There is a downward emissions production trend across the entire building stock in all scenarios, primarily due to the planned phasing out of electricity generated from fossil fuels. The emissions rebound in 2030 is due to CPUD's renewable energy certificates coming to an end and the GHG emissions factor of the electrical grid increasing (i.e., electricity emits more as more of the supply is generated by fossil fuels).

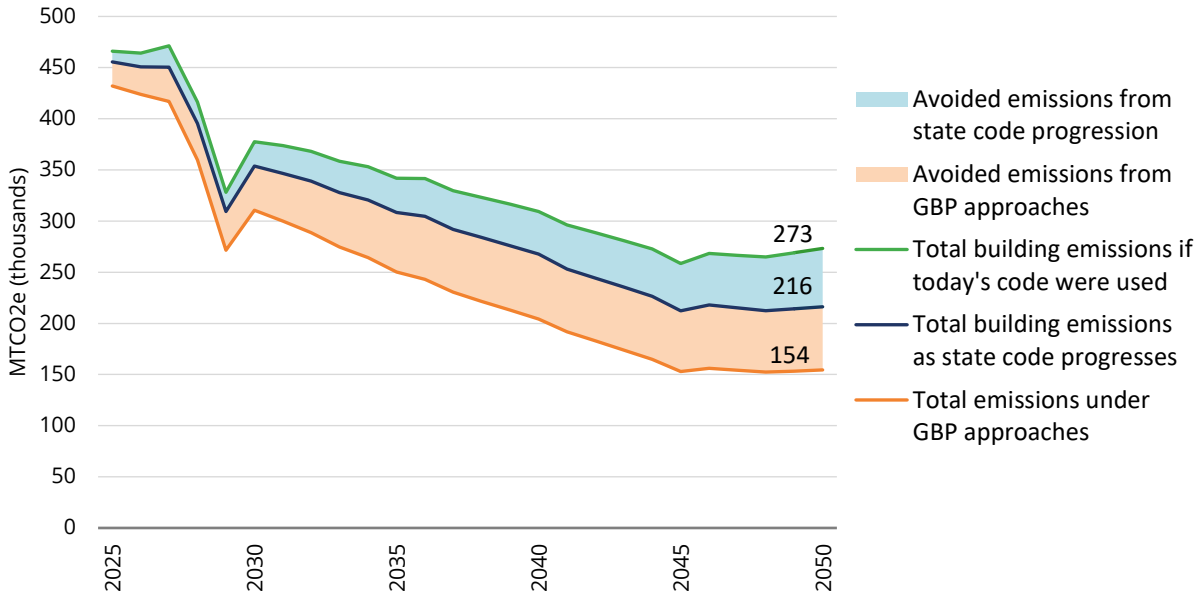

Figure 2. Total modeled emissions production for Vancouver's building stock in the coming decades for 3 scenarios.

The emissions modeling shows that GBP approaches are more effective than state code at reducing emissions in new building stock. If today's code were held constant, emissions would decrease 46% by 2050 under 2021 levels (Figure 2, green line). Under state codes, new buildings would decrease emissions 57% by 2050 under 2021 levels (Figure 2, blue line). Under GBP approaches, the total emissions reductions achieved in new buildings would be 70% by 2050 under 2021 levels (Figure 2, orange line).

In the year 2050, GBP approaches in new buildings result in 62,000 MTCO2e fewer emissions than if new buildings were built to state code. Between 2025 and 2050, GBP approaches cumulatively avoid 1.36 million MTCO2e compared to if new buildings were built to state code (the orange area in Figure 2). This is equivalent to the amount of GHG emissions produced by driving over 3.24 million gas vehicles for a year or the annual GHG emissions of over 1.77 million homes' energy use.[3]

The modeling exercise demonstrates the necessity of measures that go above and beyond current state code and proves the effectiveness of the green building approaches in the GBP. These approaches include improving buildings' energy efficiency, switching to energy efficient electrical heating and cooling equipment, and installing renewable energy generation. It confirms that green building approaches can have real, measurable, and substantial effects on Vancouver's GHG emissions reductions.

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[3] EPA Greenhouse Gas Equivalencies Calculator.

Financial Assessment

Financial calculations and modeling were performed to estimate the costs and savings effects of green building elements on individual new buildings as well as the entire new building stock (complete analysis can be found in Annex V). 11 elements were assessed:

A. High albedo roofing
B. Green roofing
C. High albedo paving
D. Grass pavers
E. Level 2 EV charger
F. Low-carbon concrete
G. Low-carbon steel
H. Smart temperature controls
I. Air source electric heat pump
J. Solar PV panel array
K. High efficiency building envelope

Two combinations of these elements were assessed for a new single-family home, for a new multi-family building, and for a new commercial building:

1. Elements A, C, and E through K.
2. Elements B, D, and E through K.

The buildings used in the analysis are described as:

- Single family: a 2-story, 2,800sf building with a 1,750sf roof and a 7 kW solar array.
- Multi-family: an 8 story, 100-unit building with a 13,000sf roof and a 49 kW solar array.
- Commercial: a 4-story, 50,000sf building with a 12,500sf roof and a 49 kW solar array.

Most element costs are fairly consistent across all 3 building types, except for EV chargers, heat pumps, and building envelopes. The results of this analysis are summarized in Table 1.

Table 1. Summary of increased capital costs (over base costs) and annual savings for green building elements used in three building types.

	Single Family		**Multi-family**		**Commercial**	
	Capital Costs	Annual Savings	Capital Costs	Annual Savings	Capital Costs	Annual Savings
Combination 1	$24,688	-$1,166	$1,067,392	-$60,070	$628,319	-$23,517
Combination 2	$36,668	-$1,166	$1,155,992	-$60,070	$721,419	-$23,517

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Year-over-year energy cost savings gained by heat pumps and building energy efficiency improvements were modeled across the entire new building stock between 2025 and 2050 (Figure 3).

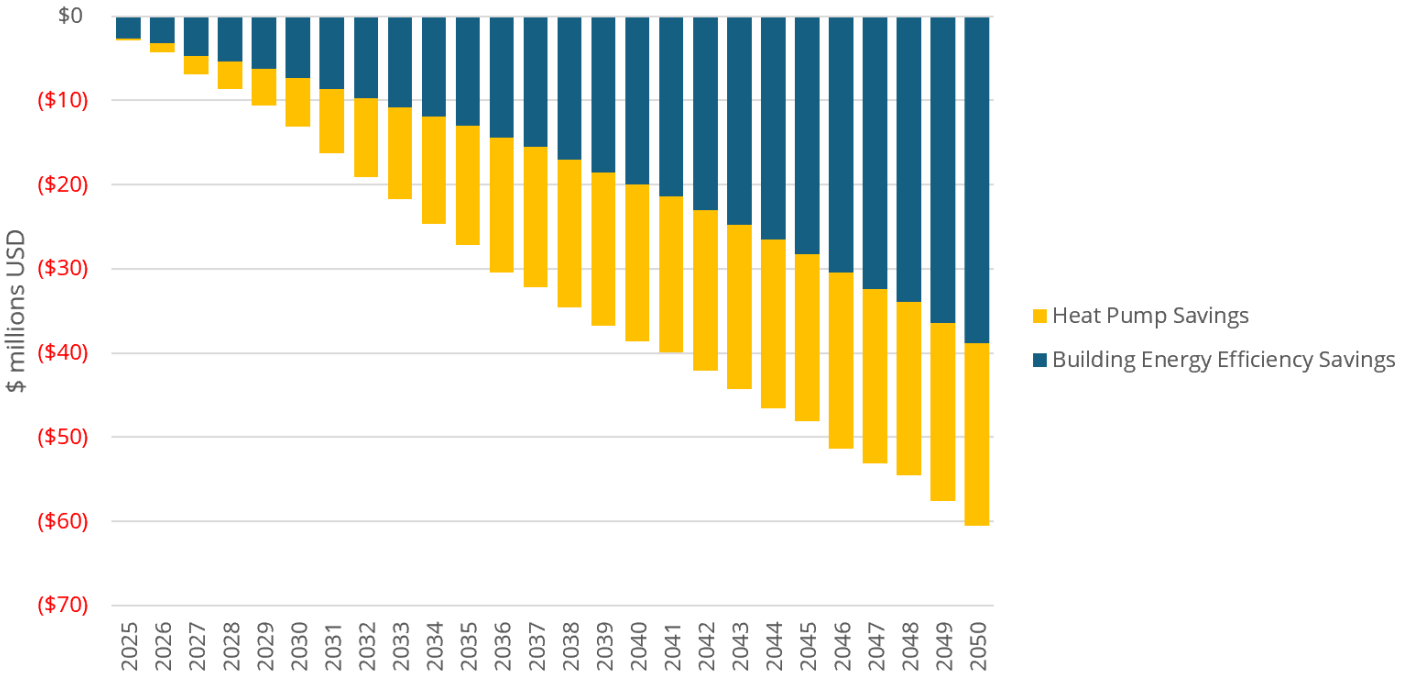

Figure 3. Year-over-year heat pump and building energy efficiency savings for all new buildings, 2025-2050.

Over the course of 25 years, heat pumps save over $360M and high efficiency envelopes save over $465M in energy costs across all new buildings built over this time period. These savings continue past 2050 as well.

This high-level financial analysis demonstrates that green building elements are likely to increase capital costs of new buildings but can result in substantial improvements to annual operational efficiency with associated reduction in annual energy use and costs. The values in this exercise result in 15 to 30 year payback periods, depending on the building type and combination of green building factors.

Some post-construction studies have shown that design and construction teams have been successful in limiting project cost premiums and creating cost-parity or cost-competitive green buildings with much shorter payback periods than identified in the GBP financial modeling.[4]

[4] For example, see the California Single Family New Construction Cost Effectiveness Study and the California Multifamily New Construction Cost Effectiveness Study.

Engagement

The engagement goal for the GBP was to ensure key City and external interested and affected parties were given opportunities to inform and provide feedback to create an effective new GBP, and to establish a community that will support its implementation.

Interested and affected parties engaged included:

- City of Vancouver Council and staff;
- The construction sector, including industry associations, contractors, architects, civil and mechanical engineers, tradespeople, private developers, building sustainability consultants, and affordable housing developers;
- Economic organizations (organizations that support local businesses and economic development);
- Environmental experts and organizations, including experts with knowledge of the environmental impacts of building policy and local environmental advocacy groups;
- The real estate sector, including brokerage houses, property manager, building management companies, realtors, and commercial real estate companies;
- Organizations with large building portfolios, such as companies and public organizations;
- The energy sector, including utilities, energy service companies, and renewable energy companies;
- Local non-profits, including community groups and non-profit organizations concerned with issues related to equity and housing affordability; and
- City of Vancouver residents.

Community members were also invited to provide input via email, website, and direct communication with City staff. Engagement activities with these groups were carried out over the course of the project (Table 2).

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Table 2: Summary of Engagement Activities.

Activity	Activity dates	Description
Technical Advisory Group (TAG) meetings	April 30, 2024 May 3, 2024 June 27, 2024 August 1, 2024	The TAG was formed to provide technical inputs on the development of the GBP, including scenario analysis, performance themes and approaches, and the proposed implementation approach. Its seventeen members include representatives from the development industry, trades, utilities, housing organizations, and green building experts.
Green Building Policy Roundtables	June 24, 2024 July 3, 2024	Two policy roundtables were held, the first focused on non-residential buildings was held on June 27, 2024 and had five participants. The second roundtable was held on July 3, 2024 with four participants and focused on residential buildings. The roundtable discussions revolved around costs, incentives, and potential challenges and supports required for implementing the proposed GBP approaches.
Equity Workshop	June 24, 2024	The seven participants of the equity workshop were representatives of local affordable housing providers, developers, and advocacy organizations; a real estate and mortgage firm, and a concerned community member. The participants provided an equity lens to the challenges and solutions associated with implementing the GBP.
Public Workshop	June 5, 2024	This hybrid workshop was attended by twenty community members—five online and fifteen in-person. Participants shared their perspectives on priorities, as well as policy and implementation considerations related to the GDS approaches.
Municipal Facilities Interview	July 3, 2024 July 31, 2024	Interview sessions with City staff working on municipal facilities to understand the current approach and opportunities related to applying green building strategies to existing municipal facilities.
Developer and Contractor Survey	July 22, 2024 to August 16, 2024	The survey aimed to get broader input from the local development and construction industry to better understand their capacity and concerns related to applying green building approaches to upcoming building projects. 41 completed responses were collected.
City Staff Workshop	August 14, 2024 August 16, 2024	These workshops were held with City staff working on building permitting to refine the proposed implementation approaches for GBP.

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Several key themes emerged during the active engagement period:

- While there is general support among City staff, the development and construction industry, and the community for climate action and GBP, many voiced their concerns about how GBP will affect costs, affordability, and complexity of building in Vancouver.
- An expressive minority does not support climate action and/or is concerned about the City focusing too much on addressing climate action.
- The development community requires a combination of financial incentives and support mechanisms to make green building projects more attractive and offset potential increased costs and complexity.
- Communication with and educating industry players and the general public will be necessary to broaden the market availability and appetite for green buildings.
- There were concerns about the City's capacity to review and process GBP applications.

For more information on the engagement activities and feedback, refer to Annex III: What We Heard Report.

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3 | The Vancouver Green Building Program

3.1 Vision, Goals, and Guiding Principles

The Green Building Standards vision and guiding principles were developed based on the vision from City of Vancouver's Climate Action Framework and refined based on feedback from TAG members and participants of the equity workshop.

Vision Statement

The Green Building Program supports the City of Vancouver in developing new buildings and upgrading existing municipal buildings in ways that create equitable and sustainable outcomes while enhancing the community and working toward the Climate Action Framework's vision and goals.

City Leadership Goal

The City will lead by building green new facilities and upgrading its existing facilities to be highly energy efficient and to use 100% clean energy. This is in alignment with its goal of reducing GHG emissions from municipal operations by 80% by 2025 and achieving carbon neutrality by 2040. The City will also make building improvements that enhance climate resilience and protect local ecosystems.

Equity Goal

The Green Building Program aims to foster equitable outcomes by creating local economic opportunities in the green building sector, enabling equitable access to the benefits of green buildings—including improved resilience to climate change impacts—minimizing additional construction costs (that could be passed on to building tenants and owners), and minimizing detrimental impacts on affordable housing production.

Guiding Principles for Developing the Green Building Program

- Be direct, simple, and verifiable to ease the process for City staff and applicants.
- Advance the CAF goal for carbon neutrality by 2040.
- Align with other existing federal and state codes, standards, and programs.
- Leverage existing City policies, codes, and programs.
- Be implementable via the City's authority (for example through Title 17, ordinances, and plans approvals).

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3.2 Building Definitions

The GBP applies to all new buildings of any type, as defined here (Table 3). It also applies to existing municipal buildings.

Table 3. GBP building definitions.

Definition	Simple Term (Shorthand)	Description
Buildings with Group R occupancies permitted under the residential energy code.	Low-rise residential. (Low-rise)	Single dwelling and multi-family buildings 3 stories and below that fall under WSEC—Residential.
Buildings with Group R occupancies permitted under the commercial energy code.	Mid- or high-rise residential and mid- or high-rise mixed-use buildings. (Mid/High-rise)	Multi-family buildings 4 stories and above that fall under WSEC—Commercial.
Commercial buildings other than Group R occupancy permitted under the commercial energy code.	Non-residential buildings. (Non-res)	Buildings that fall under WSEC—Commercial and have no residential component.
Municipal buildings.	Municipal buildings. (New Municipal)	Municipally owned facilities including municipal operations and civic buildings.
Factory, Industrial, Storage or Utility/Miscellaneous	Non-res Industrial (Industrial)	Buildings housing industrial activities and/or storage, without residential components.
N/A	Neighborhood or multi-building developments (Large developments)	Developments with multiple buildings exceeding total gross floor area of 100,000 sf.

The Washington State Energy Code is divided into the Washington State Energy Code–Commercial and the Washington State Energy Code–Residential. These are codified in the Washington State Administrative Code (WAC), Chapters 51-11C and 51-11R, respectively. The Washington State Building Code Council (SBCC) is the designated authority to interpret the state building and energy codes.

In the context of energy code compliance, a "residential" project – one for which the Washington State Energy Code–Residential applies – are single-family and two-family dwellings, townhouses, and 1, 2, and 3-story multi-family where each unit is accessed separately from the outdoors.

Jurisdictions such as cities and counties may amend only the Washington State Commercial Energy Code (which is a minimum code) if the requirements are more stringent than the base state code. The energy code amendments in the Vancouver Green Building Program only impact the commercial energy code, under which high rise multi-family residential buildings are regulated.

3.3 Green Building Program Themes

The GBP groups green building approaches into 4 themes. Each theme includes a primary objective and a variety of approaches, some of which are optional and incentivized, and some of which are mandatory. Mandatory approaches are codified in the Vancouver Municipal Code's Title 17.

The themes and their objectives are important guides for development teams. Aspiring to these performance themes during design and construction will ensure the creation of resilient and sustainable buildings.

Theme 1: Energy and Performance

Objective: Develop highly energy-efficient, zero-emission buildings.

Theme 1 focuses on approaches that produce increasingly energy efficient buildings while minimizing their GHG emissions. Approaches under this theme have the greatest impact on reducing energy use, making buildings more affordable to operate while progressing to carbon neutral buildings.

These energy and performance approaches build on the foundation of the Washington State Energy Code to achieve higher performance sooner, to meet the City's CAF targets. Through these measures, new buildings in Vancouver will use cleaner energy, have more comfortable and healthy indoor atmospheres, and achieve energy bill savings.

Theme 2: Climate and Environmental Impacts

Objective: Reduce climate impacts throughout buildings' life-cycles.

The approaches in Theme 2 reduce the carbon content of building materials used, encourage sustainable building materials use, reduce waste sent to landfills, and encourage clean transportation modes.

Up-front embodied carbon emissions from building construction in the United States is estimated at up to 370 million tons of CO_2e annually, or about 6% of total US GHG emissions per year.[5] This is comparable to all of California's current annual emissions.[6] Concrete production alone accounts for 8% of global emissions.[7] Theme 2's approaches to reduce the carbon footprint of building materials make substantial contributions to carbon pollution reduction.

Waste reduction approaches promote the reduction, reuse, and recycling of demolition and construction materials. They conserve natural resources and curb GHG emissions related to waste

[5] Larry Strain, Time Value of Carbon, 2017, https://www.siegelstrain.com/wp-content/uploads/2017/09/Time-Value-of-Carbon-170530.pdf.

[6] California Air Resources Board, "Current California GHG Emissions Inventory Data," accessed August 9, 2023, https://ww2.arb.ca.gov/ghg-inventory-data.

[7] World Green Building Council, 2019. Bringing embodied carbon upfront. https://worldgbc.org/advancing-net-zero/embodied-carbon.

disposal. Reusing and reducing waste materials are pivotal strategies in reducing the energy-intensive processes involved in producing new materials and transporting waste to disposal sites.

Electric vehicle (EV) adoption continues to rise across the US and Washington State currently has the second highest EV registrations per capita in the country.[8] To avoid creating buildings that cannot accommodate EVs currently and in the future, Theme 2 includes approaches to EV charger installations.

Theme 2 also includes approaches for bicycle storage and e-bike charging, as the City of Vancouver aims to increase its cycling infrastructure and promote more trips made by bike.

Theme 3: Climate Resilience

Objective: Create buildings that use 100% clean energy and enhance the community's climate resilience.

Approaches in Theme 3 focus on resilience to climate change impacts through renewable energy generation and indoor and outdoor environmental safety and comfort. Renewable energy in new buildings will help green the electricity grid, which currently relies in part on fossil fuel powered generation. As the outdoor temperature rises with global heating, maintaining comfortable indoor and outdoor temperatures becomes increasingly important. Similarly, increased wildfire events and the associated hazardous air quality conditions necessitate measures to maintain safe indoor air quality. Theme 3 includes approaches that incorporate passive and mechanical interior and exterior designs and technologies to achieve comfortable spaces and clean air year-round.

Theme 4: Ecology and Natural Systems

Objective: Protect and foster healthy local ecosystems.

Theme 4 focuses on making buildings and neighborhoods safe for birds and other wildlife, keeping night skies dark, and conserving natural elements like trees and soils. Wildlife and the natural environment provide innumerable and immeasurable benefits to our buildings, neighborhoods, and health. Approaches in Theme 4 ensure that conditions for wildlife populations, trees, and ecosystems are not negatively impacted by development while increasing our enjoyment of the landscape.

[8] Visual Capitalist, August 20, 2024. Mapped: Electric Vehicle Adoption by State.

3.4 Green Building Program Approaches

Theme 1: Energy and Performance

1.1 Improved Energy Efficiency

Intent: Eliminating carbon pollution is essential to avoiding the worst climate change impacts. Buildings operational energy use is a prime contributor to local and global carbon pollution. Carbon pollution can be eliminated in new buildings by improving operational energy efficiency and switching to zero-carbon energy sources. Co-benefits include lower energy bills, improved indoor comfort, and better air quality.

CAF: Aligns with CAF Strategy BE-1: Increase use and storage of renewable energy while reducing consumption.

Applicability	Approach	Status	Submission Requirements
Low-rise	Achieve third-party certification for net-zero building operating emissions compliance through a green building standard such as USGBC Zero Carbon Standard, LEED Zero, or Living Building Challenge (Net Zero).	Incentive	Documentation required by the certification standard.

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Mid/High-rise	**Mandatory** Exceed WSEC building energy efficiency performance requirements using one or more of these compliance pathways: 1. **Prescriptive pathway:** Comply with the WSEC-C Prescriptive Path plus the Vancouver amendments applicable to the prescriptive path. 2. **Modeling pathway**: Comply with the WSEC-C Total Building Performance Path (i.e., full building modeling in design) plus the Vancouver amendments applicable to the Total Building Performance Path. 3. **Target Performance pathway:** Comply with the WSEC-C Target Performance Path (i.e,. full modeling, plus prove with actual operational performance). **Incentive** In addition to selecting one of the mandatory pathways, optionally achieve third-party certification for net-zero building operating emissions compliance through a green building standard such as USGBC Zero Carbon Standard, LEED Zero, or Living Building Challenge (Net Zero). Ensure that the minimum Vancouver energy efficiency requirements are met under these standards.	Mandatory	Per the WSEC chosen pathway.
Non-res	Same as Mid/High-rise.	Mandatory	Per the WSEC chosen pathway.
New Municipal	Same as Mid/High-rise.	Mandatory	Per the WSEC chosen pathway.
Mid/High-rise non-profit housing	For housing projects using Washington State's Evergreen Standards, meet or exceed the WSEC-C and achieve 15 ESDS points in the Additional Efficiency category.	Mandatory	Per the WSEC chosen pathway.

Vancouver Amendments to the WSEC (included in Title 17, where more detail can be found)

- **Opaque Thermal Envelope Insulation:** increased stringency in the R-value and U-value thermal performance.

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- **Fenestration Performance**: increased stringency in the U-value thermal performance.
- **Dimming Controls:** additional dimming capabilities to reduce power consumption.
- **Lighting Power Allowances:** increased stringency regarding lighting power consumption.
- **Energy Measure Credits:** increased stringency in the valuation of mandatory credits.
- **Commissioning:** additional requirements for commissioning report documentation and the resolution of deficiencies.
- **Renewable Energy:** additional methods of compliance and exemption of affordable housing from requirement.
- **Building Performance Factors (BPF):** for projects pursuing the Total Building Performance compliance path (full energy modeling), increased stringency to BPF requirements for multi-family and hotel/motel projects.
- **Limits on Substandard Building Envelopes:** for projects pursuing the Total Building Performance compliance path (full energy modeling), the ability for higher-performing energy efficiency strategies to compensate for poorer-performing building envelope elements is further limited.
- **Optional Target Performance Path:** creates a new and optional compliance path which requires full energy modeling in design, requires achieving Building Performance Factors that are 12% stricter than the Total Building Performance option, and requires proving energy efficiency compliance during building operation secured with a financial performance bond.

Notes

The Washington State Energy Code-Commercial provides for multiple compliance pathways including:

- **The Prescriptive Compliance Path (C401.2, Option 1). T**his pathway includes prescriptive performance requirements for building envelope, mechanical, and lighting systems and compliance with the Total System Performance Ratio requirement.
- **The Total Building Performance Path, i.e., Full Energy Modeling (C401.2, Option 2).** This pathway includes full energy modeling and compliance with the Building Performance Factors (BPF) which compares the proposed building's performance with a reference building of a similar function, location and geometry. This option, which is more complex to model, provides for increased design flexibility provided that the overall energy reduction requirements are met.
- **Optional Appendices**. At the discretion of the local jurisdiction, optional appendices, such as a Target Performance Path, may be adopted as a local amendment.

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Vancouver's Green Building Program includes new local commercial energy code amendments affecting both the Prescriptive Compliance Path and the Total Building Performance Path. To provide a third compliance path, the Target Performance Path is included as a new local amendment to the Commercial Energy Code.

Resources

- Washington State Energy Code -Commercial (WSEC-C). The State's energy code provides the base direction and requirements for energy efficient new buildings.
- Vancouver Municipal Code Title 17. The City's Building Codes Ordinance.

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1.2 All-electric-ready Buildings

Intent: Residents and businesses should have energy source options and be able to choose low-carbon electricity for all energy uses in the building now and in the future.

CAF: Aligns with CAF Strategy BE-2: Decarbonize homes, businesses and other buildings. This CAF strategy encourages transition to heat pumps and electricity for space conditioning, water heating, and cooking.

Applicability	Approach	Status	Submission Requirements
Low-rise	Ensure the building is 100% electricity-capable, including appropriate dedicated wiring and service for electricity use in all space and water heating and cooling equipment, cooking, appliances, and any other energy-using equipment.	Incentive	Electrical plans.
Mid/High-rise	Same as Low-rise.	Mandatory	Electrical plans.
Non-res	Ensure the building is 100% electricity-capable, including appropriate dedicated wiring and service for electricity use in all space and water heating and cooling equipment, cooking, appliances, and any other energy-using equipment. Commercial kitchens are incentivized to meet this approach until 2027. The City will make a decision for the next code cycle whether to make this approach mandatory. Exemptions: • Equipment or systems used for manufacturing and industrial processes.	Mandatory, Incentive for commercial kitchens	Electrical plans.
New Municipal	Ensure buildings' heating, cooling, and domestic hot water equipment are able to operate using electricity and must not use fossil fuels (specialty equipment and process equipment excepted).	Mandatory	Electrical plans.

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Resources

This approach is additive to WSEC-C C401.3.6 Electrification readiness.

Notes

If the all-electric ready requirement were made mandatory for commercials kitchens post 2027, the City would offer an appeals process for circumstances where the kitchen requirement would be burdensome, for special circumstances, etc.

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1.3 Energy Benchmarking

Intent: Optimally operating buildings reduce energy use and costs while minimizing carbon pollution. Comparing a building's energy use, performance, and equipment operations to other similar buildings encourages use of best practices among those buildings. As buildings age, equipment performance changes. Participation in a benchmarking and reporting program ensures building maintenance is up-to-date and systems are optimally performing. High performance buildings can share successful approaches through the state's Clean Buildings Performance Standard benchmarking program.

CAF: These approaches align with most of the Actions in Strategy BE-1 in the CAF's Buildings & Energy section.

Applicability	Approach	Status	Submission Requirements
Low-rise	Enroll in the national Department of Energy's Home Energy Score program.	Incentive	Home Energy Score report.
Mid/High-rise	Enroll in the ENERGY STAR® Portfolio Manager program to benchmark and report on operational energy performance. **2025-2027:** Applicable to buildings 20,000 sf in area and greater. **2028 onward:** Applicable to all buildings.	Mandatory	Documentation required by Washington State's Clean Buildings Performance Standard.
Non-res	Same as Mid/High-rise.	Mandatory	Documentation required by Washington State's Clean Buildings Performance Standard.
New Municipal	Same as Mid/High-rise.	Mandatory	Documentation required by Washington State's Clean Buildings Performance Standard.

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Resources

- Clean Buildings Performance Standard. Washington State Department of Commerce platform to support Clean Buildings Performance Standards compliance including objectives, requirements, timelines, resources, tools and the Early Adopter Incentive Program.
- Energy Star Portfolio Manager. Energy Star's interactive resource management tool for building energy performance.
- Home Energy Score. Resources for setting up a Home Energy Score program by the U.S. Department of Energy's Better Buildings Initiative.
- Seattle's Energy Benchmarking Program. Information from the City of Seattle including the City's Energy Benchmarking Law, a fact sheet, compliance instructions, and performance data from over 3,600 buildings for 2023 captured in an Energy Benchmarking Map.
- Portland's Commercial Building Energy Reporting. Information on the City of Portland's Commercial Building Energy Reporting program.
- Report to Portland City Council on Residential Energy Performance Rating and Disclosure Ordinance. Evaluation report after 30-months of program implementation.

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Theme 2: Climate and Environmental Impacts

2.1 Embodied Carbon and Life Cycle Assessment

Intent: Often overlooked, building materials and construction practices contribute significantly to a building's total carbon pollution production. Reducing the carbon released in materials production and construction practices is essential to reducing buildings' contribution to local and global carbon pollution. A carbon pollution aware approach to construction can result in fewer materials used, saving costs. Low-carbon base building materials are typically near cost parity with standard base building materials.

Applicability	Approach	Status	Submission Requirements
Low-rise	Nothing required.	N/A	N/A
Mid/High-rise	Comply with one of the following embodied carbon reduction paths: **1.** Retain 45% or more (by area) of on-site existing structures and/or exterior materials. **2.** Achieve 25-40% reduction in A1 to A3 (product stage) embodied carbon emissions for 90% of eligible materials considered in aggregate, compared to a reference project with the same type and quantity of eligible materials and using current industry average emissions data. **3.** Complete a Whole Building Life Cycle Assessment (WBLCA) of structures and enclosures that demonstrates 10-20% reduction in embodied emissions compared to a reference building. **Ambition increases every code cycle:** **2025-2027** **All buildings** **> 200,000 sf** Path 1: 45% Path 2: 25% Path 3: 10% **2028-2030** **All buildings** **> 100,000 sf** Path 1: 45% Path 2: 30% Path 3: 15% **2030 onward** **All buildings** **> 50,000 sf** Path 1: 45% Path 2: 40% Path 3: 20%	Incentive (2025-2029) Mandatory (2030 onward)	**Path 1:** Structures and materials retention report. **Path 2:** Calculations report. **Path 3:** WBLCA report.

Non-res	Same as Mid/High-rise.	Incentive (2025-2029) Mandatory (2030 onward)	**Path 1:** Structures and materials retention report. **Path 2:** Calculations report. **Path 3:** WBLCA report.
New Municipal	State-funded projects must comply with the Buy Clean and Fair Washington Act HB1103. Other municipal projects are required to comply with Mid/High-Rise requirements.	Mandatory	Description report, per Act HB1103. **Path 1:** Structures and materials retention report. **Path 2:** Calculations report. **Path 3:** WBLCA report.

Notes

A1-A3 construction material life-cycle stages:

A1: Raw material extraction and processing, processing of secondary material input (e.g. recycling processes).
A2: Transport to the manufacturer.
A3: Manufacturing.

All stages include the provision of all materials, products, and energy, as well as waste processing up to the end-of-waste state or disposal of final residues during the product stage. The assessment takes only the building and its parts into account, but not furniture or appliances, for example.

Resources

- US Department of Energy Embodied Carbon Reduction in New Construction Reference Guide. A brief, effective embodied carbon guide with an extensive list of tools and resources.

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- One Click LCA website. This resource provides information and calculation tools for life cycle assessments and embodied carbon green building approaches
- Athena Impact Estimator for Buildings. A free and industry-leading tool for whole-building life cycle assessments.

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2.2 Sustainable Building Materials

Intent: Building material choices can have positive or negative local and global environmental, economic, and social life cycle impacts. Using sustainable building materials avoids resource extraction approaches that damage and contaminate ecosystems. It also encourages local economic activity and reduces the use of new raw materials.

Applicability	Approach	Status	Submission Requirements
Low-rise	Taking the mid/high-rise approach qualifies for incentives.	Incentive	N/A
Mid/High-rise	At least 25% (by cost) of the total value of permanently installed building products must meet the requirements for at least two of the responsible extraction criteria identified below: • Extended producer responsibility. • Bio-based materials. • Wood products. Wood products must be certified by the Forest Stewardship Council or other USGBC-approved equivalent. • Materials reuse. Reuse includes salvaged, refurbished, or reused products. • Recycled content. Recycled content is the sum of post-consumer recycled content plus one-half the pre-consumer recycled content, based on weight. • Products sourced (extracted, manufactured, and purchased) within 800 km of the project site.	Incentive	As per LEED v4.1 BD+C MR Credit: Sourcing of Raw Materials.
Non-res	Same as Mid/High-rise.	Incentive	As per LEED v4.1 BD+C MR Credit: Sourcing of Raw Materials.
New Municipal	Same as Mid/High-rise.	Mandatory	As per LEED v4.1 BD+C MR Credit: Sourcing of Raw Materials.

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Notes

Responsible extraction criteria definitions are aligned with those used in LEED v4.1 BD+C Guide:[9]

Extended producer responsibility. Products purchased from a manufacturer (producer) that participates in an extended producer responsibility program or is directly responsible for extended producer responsibility. Products meeting extended producer responsibility criteria are valued at 50% of their cost for these calculations.

Bio-based materials. Bio-based products and materials other than wood must be tested using ASTM Test Method D6866 or equivalent method ISO 16620-2, or be certified to the USDA BioPreferred Voluntary Labeling Initiative that includes verification via ASTM 6866 testing. Exclude hide products, such as leather and other animal skin material.

- Bio-based products that meet the criteria above: value at 50% of cost multiplied by the biobased content of the product for these calculations.

Wood products. Wood products must be certified by the Forest Stewardship Council (not equivalent). Products meeting wood products criteria are valued at 100% of their cost for these calculations.

Materials reuse. Reuse includes salvaged, refurbished, or reused products. Products meeting materials reuse criteria are valued at 200% of their cost for the purposes of these calculations.

Recycled content. Products meeting the following recycled content criteria are valued at 100% of their cost for these calculations:

- Recycled content is the sum of post-consumer recycled content plus one-half the pre-consumer recycled content, based on weight.
- The recycled fraction of the assembly is then multiplied by the cost of assembly to determine the recycled content value.

Products sourced (extracted, manufactured, and purchased) within 100 miles of the project site are valued at twice their base contributing cost, up to a maximum of 200% of cost.

Life cycle information is available for most building products through environmental product declarations.

[9] LEED v4.1 BD+C Guide.

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2.3 Demolition and Construction Waste Management

Intent: Properly sorting, recycling, and diverting demolition waste avoids strain on landfill resources and avoids the production of methane—a potent greenhouse gas—from decomposing materials. The materials in existing buildings can be reclaimed and reused in new buildings and infrastructure. Reusing and repurposing building materials and diverting materials from landfills reduces waste and prolongs the usefulness of existing materials. Under the right conditions, reusing materials can be less costly than using new materials.

CAF: Aligns with CAF Strategy SW-1, Action #1: City-wide composting and organics management, and Action #5: Construction and demolition incentives.

Applicability	Approach	Status	Submission Requirements
Low-rise	Divert a minimum of 75% of non-hazardous demolition and construction materials from the landfill. For residential projects > 5,000 sf or more than 3 dwelling units, comply with the Mid/High-rise requirements.	Incentive	**Project start:** Construction and Demolition Waste Management Plan. **Project end:** Waste Management Report.
Mid/High-rise	Divert a minimum of 75% of non-hazardous demolition and construction materials from the landfill. Provide dedicated and signed jobsite containers to receive four (or more) waste streams. At minimum: 1. Commingled recycling. 2. One or more containers for recycling specific materials (i.e., clean wood, ferrous materials, concrete washout, and/or gypsum wall board. Material types can change with construction phase). 3. Organic materials. 4. Garbage.	Incentive (2025-2027) Mandatory (2027 onward)	**Project start:** Construction and Demolition Waste Management Plan. **Project end:** Waste Management Report.
Non-res	Same as Mid/High-rise.	Incentive (2025-2027) Mandatory (2027 onward)	**Project start:** Construction and Demolition Waste Management Plan. **Project end:** Waste Management Report.

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New Municipal	Same as Non-res.	Optional (2025-2027) Mandatory (2027 onward)	**Project start:** Construction and Demolition Waste Management Plan. **Project end:** Waste Management Report.

Notes

Direction for this approach aligns with the LEED MR Credit: Construction and Demolition Waste Management.[10]

Waste management reports must detail all demolition waste generated, including disposal and diversion rates. Calculations can be by weight or volume but must be consistent for all demolition materials. Exclude excavated soil and land-clearing debris from calculations. Include materials destined for alternative daily cover (ADC) in the calculations as waste (not diversion). Any materials sent to a commingled recycling facility for processing must take the facility average recycling rate and must include any ADC as waste (not diversion). All recycling facilities must be regulated by a local or state authority.

[10] LEED v4.1 BD+C Guide.

2.4 Electric Vehicle Charging

Intent: Supporting low-carbon transportation options helps transition to modern, low-pollution vehicles. Installing appropriate charging infrastructure in new buildings ensures current and future electric vehicle charging needs are met without the need for expensive building parking area retrofits.

CAF: Strategy TLU-3, Action #19: EV infrastructure planning and implementation, provides direction to require installed and operable EV chargers for at least 25% of spaces in new parking facilities, commercial, and multifamily developments that include parking.

Applicability	Approach	Status	Submission Requirements
Low-rise	Nothing required above state code, which requires that each dwelling is EV-ready for minimum one charging unit.	Mandatory (state code)	N/A
Mid/High-rise	EV chargers are required to have separate metering. Consult with Clark PUD on managed charging options that may reduce the need for more expensive electrical equipment upgrades.	Mandatory (state code) + Incentive	Letter of commitment and architectural and electrical plans for parking areas and electrical rooms.
Non-res	Nothing required above state code.	Mandatory (state code)	N/A
New Municipal	Follow state code minimums for supplying public EV charging infrastructure in civic buildings. For municipal facility buildings, align with the fleet management strategy requirements. Consult with Clark PUD on managed charging options.	Mandatory	Architectural and electrical plans for parking areas and electrical rooms.

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Notes

EV Charging, Ready, and Capable Definitions[11]

EV charging stations and EV-Ready parking spaces. A minimum of 40-ampere dedicated 208/240-volt branch circuit shall be installed for each EV Ready parking space and each EV Charging Station. The branch circuits shall terminate at a receptacle outlet or EV charger in close proximity to the proposed location of the EV Ready parking space or the EV Charging Station.

EV-Capable parking spaces. A listed raceway capable of accommodating a minimum of 40-ampere dedicated 208/240-volt branch circuit shall be installed for each EV-Capable parking space. The raceway shall terminate into a cabinet, box or other enclosure in close proximity to the proposed location of the EV-Capable parking space. Raceways and related components that are planned to be installed underground, and in enclosed, inaccessible or concealed areas and spaces, shall be installed at the time of original construction.

Mid/High-rise building developments require a letter of commitment describing the planned installation of the appropriate Level 2 EV charging units and Level 2 ready and capable EV supply equipment (EVSE) is required at project outset. It must be signed by a qualified professional (e.g., electrical engineer) and the owner/developer/builder.

Electric Vehicle Smart Charging. By managing energy loads more effectively and participating in grid optimization, EV smart charging options contribute to lowering the need for expensive electrical equipment upgrades and maintenance. Clark PUD can coordinate with developers on integrating smart charging systems into projects.

The City may also consider advocating the State for a more nuanced approach to EV charger provision in new buildings, including allowances for different charger types.

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[11] WAC 51-50-0429.

2.5 Bicycle Parking

Intent: Shifting trips from cars to active transportation modes reduces noise and carbon pollution while improving physical and mental health. Supplying sufficient secure bicycle parking storage for building residents and visitors ensures everyone has their choice of transportation options. Direction in the CAF and Transportation System Plan aims to supply more buildings and neighborhoods with improved and expanded cycling infrastructure. As all manner of electric motorized personal vehicles (e-bikes, e-scooters, electric unicycles, e-skateboards, etc.) become more common, providing charging infrastructure in the secure storage spaces supports these modes.

CAF: Strategy TLU-1, Action #1: Mixed-use, transit-oriented development, provides direction to include infrastructure that supports bike parking, charging for electric bikes and scooters, and shared mobility programs (such as bike share). Strategy TLU-3, Action #19 includes direction for considering charging for e-bikes and other electric micro-mobility options in new commercial and multi-family buildings.

Applicability	Approach	Status	Submission Requirements
Low-rise	Provide one secure bike parking stall per 300 sf of housing unit area, excluding the area of accessory buildings.	Incentive	Site plans.
Mid/High-rise	Provide one secure bike parking stall per two dwelling units and supply at least 20% of all bike stalls with e-bike charging (120V wall outlets).	Mandatory	Letter of commitment and architectural and electrical plans.
Non-res	Follow the requirements in Seattle Municipal Code (SMC) 23.54.015.K, Table D. Supply at least 10% of bike stalls with e-bike charging (120V wall outlets).	Mandatory	Letter of commitment and architectural and electrical plans.
New Municipal	Provide long-term bike parking storage for 5% of FTE and short-term bike parking for 2.5% of peak-time visitors. Include shower and changing facilities in applicable City facilities.	Mandatory	Letter of commitment and architectural and electrical plans.

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Notes

Seattle Municipal Code (SMC) 23.54.015.K[12] provides bicycle parking direction and requirements for all new buildings in Seattle. Its guidance can be applied for bicycle parking in new Vancouver buildings, as well, and must be applied in the case of non-residential commercial buildings. Seattle Director's Rule 6-2020 and 1-2020,[13] as well as the Seattle Bicycle Parking Guidelines[14] provide further specifications.

Letters of commitment describing how the bicycle parking and charging requirements must be met will be signed by the building architect and electrical engineer.

Resources

- Bicycle Parking Guidelines. Vancouver's interim guideline for bicycle parking, this document will be updated to reflect the new bicycle parking requirements.

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[12] SMC 23.54.015.K
[13] Seattle Director's Rule 6-2020 and 1-2020.
[14] Ibid.

Theme 3: Climate Resilience

3.1 Renewable Energy Generation and Energy Storage

Intent: Local, renewable energy and distributed energy resources provide many benefits: greening the electricity grid, providing energy resilience, reducing stress on the grid, reducing energy bills, and even reducing building heating loads by providing shading, in the case of rooftop solar PV and solar thermal systems.

CAF: Aligns with CAF Strategy BE-1: Increase use and storage of renewable energy while reducing consumption.

Applicability	Approach	Status	Submission Requirements
Low-rise	Provide a solar-ready zone of not less than 300 sf for one- and two-family dwellings. Provide a solar-ready zone of not less than 150 sf for each dwelling unit in a townhouse project of three stories or fewer in height and total floor area less than or equal to 2,000 sf.	Incentive	Architectural and electrical plans.
Mid/High-rise	Comply with state code WAC-51-11C-41100 which requires new buildings or additions larger than 10,000 sf of gross conditioned floor area to include a renewable energy generation system consisting of not less than 0.5W/sf multiplied by the sum of gross conditioned floor area. Additionally, buildings of any size are incentivized to install renewable energy generation systems consisting of not less than 0.75 W/sf multiplied by the sum of gross conditioned floor area. Additionally, buildings of any size are incentivized to install energy storage capacity to reduce peak load demands.	Mandatory + Incentive	Architectural and electrical plans.
Non-res	Same as Mid/High-rise.	Mandatory + Incentive	Architectural and electrical plans.
New Municipal	Provide on-site electricity generation that exceeds the Washington State Building Code requirements by 75%.	Mandatory	Architectural and electrical plans and purchasing agreement.

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	Additionally, procure renewable power for the energy consumption not met by on-site renewables. Ensure back up power is provided by generators using R99 fuel or renewable energy battery or thermal energy storage devices or a combination of these options.		
Non-res Industrial	For buildings or additions larger than 10,000 sf of gross conditioned floor area with process load applications,[15] consult with Clark PUD on the potential to host community solar projects. Explore other opportunities for renewable energy (additional opportunities may merit incentives).	Mandatory	Confirmation letter from Clark PUD as proof of consultation, with description of the outcome of the consultation process.
Large and/or multi-building developments	For developments with multiple buildings exceeding total gross floor area of 100,000 sf, assess the viability of district energy systems and microgrids, and implement such systems when determined to be beneficial and viable. For multi-building low-rise developments, assess the viability of district energy systems, microgrids, and shared renewable energy generation equipment (e.g., solar PV gardens), and implement such systems when determined to be beneficial and viable.	Mandatory	District energy, microgrid, and shared renewable energy generation equipment assessment report.

Notes

The approach for Low-rise buildings adopts Appendix T—Solar-ready provisions-detached one- and two-family dwellings and townhouses of the WAC Title 51, the WAC-51-51-60106.

[15] Process load applications are a manufacturing, industrial, or commercial procedure or activity where the primary purpose is other than conditioning spaces and maintaining comfort and amenities for the occupants of the building.

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3.2 Refuge Area

Intent: Vancouver's primary climate risks are flooding and extreme heat, with power outages being the most probable human-caused event. Incorporating refuge areas in buildings during design and construction ensure that occupants have safe spaces to shelter-in-place during emergencies, disasters, and power outages, with access to basic amenities.

CAF: These approaches align with Equity & Green Economy Strategy EQ-1, Action #5: Community safety hubs.

Applicability	Approach	Status	Submission Requirements
Low-rise	Nothing required.	N/A	N/A
Mid/High-rise	For buildings greater than 10 stories, include a communal refuge area with heating, cooling, potable water, and 72-hour back-up power generation, preferably from renewable sources, for shelter-in-place during emergencies such as heat waves, power outages, and severe storms.	Incentive	Architectural plans.
Non-res	Nothing required.	N/A	N/A
New Municipal	New municipal facilities that contain central amenities such as, lobby, gym space, or meeting rooms, to provide temporary shelter for vulnerable residents. Common refuge areas are temporarily shared, lit spaces where vulnerable residents can gather to stay warm or cool, charge cell phones and access the internet, safely store medicine, refrigerate basic food necessities, access potable water and toilets and perhaps prepare food. Provide a minimum of 72-hours back-up power generation for critical areas and functions. Ensure back up power is provided by generators using R99 fuel or renewable energy battery or thermal energy storage devices or a combination of these options.	Mandatory (per City policy)	Architectural plans.

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Notes

Communal refuge areas may function as building amenity space during normal operation times. The back-up power system should ensure power is provided to the refuge area, and to the ground floor or the first two floors as applicable to the building use, to supply power to: building security systems, domestic water pumps, sump pumps, at least one elevator, boilers and hot water pumps to enable access and egress and essential building functions during a prolonged power outage.

Resources

- City of Toronto, October 2016. Minimum Backup Power Guidelines for MURBs: Voluntary Performance Standards for Existing and New Buildings.

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3.3 Sustainable Roofing

Intent: Maximizes the utility of roof spaces while addressing emissions reduction goals, stormwater management objectives, and urban heat island issues.

CAF: Sustainable roofing approaches align with the Natural Systems & Water Resources strategies.

Applicability	Approach	Status	Submission Requirements
Low-rise	Nothing required for one- and two-family dwellings. Townhouse projects to have highly reflective roofs, green roofs, blue roofs, or solar panels, or a mix of sustainable roof features on 100% of the buildings non-mechanical roof space.	Incentive	Architectural plans.
Mid/High-rise	100% of non-mechanical occupied roof space to have highly reflective roofs and incentivized to install one or a mix of these sustainable roof features: green roofs, blue roofs, or solar panels (exceeding 3.1 requirements)	Mandatory + Incentive	Architectural plans.
Non-res	Same as Mid/High-rise.	Mandatory + Incentive	Architectural plans.
New Municipal	Require 100% of non-mechanical occupied roof space to have one or a mix of sustainable roof features.	Mandatory (per City policy)	Architectural plans.

Notes

The sustainable roof features for consideration in City of Vancouver are:

- **Highly reflective roof:** Uses high albedo or light-colored materials, with a Solar Reflective Index (SRI) of 78 or over, to reflect most sunlight instead of absorbing it as heat into the building. Although effective at first, roofing materials collect dirt, dust, and particulates that reduce the effectiveness of high albedo materials. Thus, a maintenance plan must be in place to routinely clean the surfaces.

- **Green roof:** Also known as a living roof, roof gardens and vegetated roof, is a roofing system that incorporates vegetation, soil, and drainage layers to support plant growth on the roof surface. Green roofs provide numerous benefits, including improved

stormwater management, reduction of urban heat island effect, improved air quality, energy savings, habitat creation, and aesthetic enhancement.

- **Blue roof:** A roofing system designed to manage stormwater runoff by temporarily storing rainwater on the roof surface and slowly releasing it over time with features like cisterns, tray systems, and controlled outlets. Blue roofs mitigate flood risk and reduce strain on municipal sewer systems during heavy rainfall events.
- **Rooftop solar panels:** Solar panel systems generate carbon-free electricity that lowers utility bills, relieves strain on the electricity grid, and reduces GHG emissions.

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3.4 Indoor Temperature

Intent: Climate projections suggest increasing risk for heat waves and wildfires for Vancouver, which exacerbates health issues such as heat-related illnesses, respiratory problems, and dehydration. Relying solely on mechanical cooling systems, like air-conditioners, adds stress to the electric grid and, if the grid is powered by fossil fuels, contributes to carbon pollution. Incorporating passive cooling solutions like natural ventilation, shading, operable windows, and thermal insulation during the design process will help buildings maintain comfortable indoor temperatures without being over-reliant on energy-intensive cooling equipment.

CAF: These approaches align with Strategy EQ-1, Actions 2 and 3, which call for conducting a climate vulnerability assessment and updating the City's Natural Hazard Mitigation Plan.

Applicability	Approach	Status	Submission Requirements
Low-rise	Ensure all regularly occupied spaces in dwelling units are equipped with operable windows. Ensure dwellings can consistently maintain a minimum of 60°F in the winter months and a maximum of 80°F in the summer months.	Incentive	Architectural and mechanical plans, as well as detailed explanations of technological and passive design solutions that achieve this outcome.
Mid/High-rise	Ensure all regularly occupied spaces in dwelling units are equipped with operable windows. Ensure building systems (inclusive of mechanical systems, control systems, and building envelope) meet the requirements of ASHRAE Standard 55–2017, Thermal Comfort Conditions for Human Occupancy for all regularly occupied spaces.	Mandatory	Architectural and mechanical plans and appropriate ASHRAE 55-2017 documentation.
Non-res	Ensure building systems (inclusive of mechanical systems, control systems, and building envelope) meet the requirements of ASHRAE Standard 55–2017, Thermal Comfort Conditions for Human Occupancy for all regularly occupied spaces.	Mandatory	Appropriate ASHRAE 55-2017 documentation.
New Municipal	Same as Non-res.	Mandatory (per City policy)	N/A

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3.5 Air Quality

Intent: Reduce indoor occupants' exposure to smoke from wildfires, which contain fine particulate matter and other pollutants that can cause respiratory symptoms and aggravate chronic heart and lung diseases.

CAF: These approaches align with Strategy BE-1, Action #1: Community energy efficiency incentives, and Action #11: Home electrification incentives (existing homes), particularly with incentivizing HVAC and heat pump retrofits to improve air quality in homes.

Applicability	Approach	Status	Submission Requirements
Low-rise	Ventilation and filtration systems are required to have at minimum MERV 13-rated filtration media installed. Ensure filtration media does not reduce building systems' effectiveness and efficiency, including for heat pumps. Comply with EPA Indoor airPlus program requirements for source control, ventilation and filtration.	Incentive	Indoor airPlus checklist and mechanical plans.
Mid/High-rise	**Mandatory:** Ventilation and filtration systems are required to have at minimum MERV 13-rated filtration media installed. Ensure filtration media does not reduce building systems' effectiveness and efficiency, including for heat pumps. **Incentive:** comply with EPA Indoor airPlus program requirements for source control, ventilation and filtration.	Mandatory + Incentive	Mandatory: mechanical plans. Incentive: Indoor airPlus checklist.
Non-res	Same as Mid/High-rise.	Mandatory + Incentive	Mandatory: mechanical plans. Incentive: Indoor airPlus checklist.
New Municipal	Same as Mid/High-rise.	Mandatory (per City policy)	Mechanical plans and Indoor airPlus checklist.

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3.6 Cool Surfaces

Intent: Reduce urban heat island effect by increasing shade, incorporating reflective paving materials, and increasing landscape areas. Reducing urban heat island effect reduces airborne toxins, decreases building cooling demand, and improves indoor and outdoor comfort.

CAF: These approaches align with Strategy EQ-1, Actions 2 and 3, as well as Strategy NS-2, Action 8 which call for conducting a climate vulnerability assessment, updating the City's Natural Hazard Mitigation Plan, and increasing the tree canopy.

Applicability	Approach	Status	Submission Requirements
Low-rise	Ensure 50% of non-roof hardscape are cool surfaces. Cool surfaces can be highly reflective, highly permeable, vegetated, shaded, or a mix of these features.	Incentivize	Site plan.
Mid/High-rise	Same as Low-rise.	Mandatory	Site plan.
Non-res	Same as Low-rise.	Mandatory	Site plan.
New Municipal	Same as Low-rise.	Mandatory (per City policy)	Site plan.

Notes

Cool surface features for consideration:[16]

- **Highly reflective surface:** Uses high albedo paving materials with an initial solar reflectance (or albedo) of at least 0.33 or SRI of 29
- **Highly permeable surface:** Uses grid pavement with at least 50% perviousness.
- **Vegetated surfaces:** Uses existing plant material or installs plants that provide shade over paving areas on the site within 10 years of planting. Plants must be in place at the time of occupancy and cannot include artificial turf.
- **Shaded surfaces:** Provide shade with architectural devices or structures. If the device or structure is a roof, it shall have an aged solar reflectance value of at least 0.28. If the device or structure is not a roof, or if aged solar reflectance information is not available, it shall have at installation an initial solar reflectance of at least 0.33. Structures can be covered by energy generation systems such as solar thermal collectors, photovoltaics, and wind turbines.

[16] Summarized from information on the Cool Roof Rating Council website.

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Theme 4: Ecology and Natural Systems

4.1 Bird-friendly Design

Intent: Provide bird-friendly environments and reduce bird injury and fatalities caused by collisions with buildings.

CAF: These approaches align with Strategy BE-1, Action 7: Green building policy, whose intent is to design buildings with bird-safe features.

Applicability	Approach	Status	Submission Requirements
Low-rise	Nothing required.	N/A	N/A
Mid/High-rise	Design and build the building, site structures, glazed corners, glazed railings, and fly-through conditions to be visible as physical barriers to birds. Apply window glazing treatments or building and fenestration strategies to all site structures, windows, and façade materials included in the first 40 feet above grade and 12 feet above any green roof.	Mandatory	• Bird Collision Rating spreadsheet • Elevation Plan depicting location of all materials and screening devices with specification details
Non-res	Same as Mid/High-rise	Mandatory	• Bird Collision Rating spreadsheet • Elevation Plan depicting location of all materials and screening devices with specification details
New Municipal	Same as Mid/High-rise	Mandatory (per City policy)	• Bird Collision Rating spreadsheet • Elevation Plan depicting location of all materials and screening devices with specification details

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Notes

For glazing treatments, use only glazing and materials listed in the American Bird Conservancy's (ABC) Threat Factor Database with a Threat Factor of 30 or below, or meet alternative prescriptive criteria outlined by the ABC. All glazed corners or fly-through conditions must also have a Threat Factor of 30 or below.

Qualifying bird friendly materials include:

- Glazing that incorporates physical signals to birds created by fritting and UV coatings;
- Non-glazing, opaque and non-reflective materials such as concrete;
- Glazing behind qualifying sunshades and screens; and,
- Glazing to which materials such as qualifying window films have been applied.

The building and fenestration strategies include external screens, decorative grills, screens, netting, louvers, shutters or exterior shades placed close to the outside glass surface, with openings that approximate the 2x4 rule.

Resources

- Port of Vancouver's Bird Safe Building and Lighting Design Standards.
- Threat Factor Database. American Bird Conservancy's list of qualifying materials.
- Innovation: for Bird Collision Deterrence. U.S. Green Buildings Council provides steps for calculating Bird Collision Rating

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4.2 Dark-sky Lighting

Intent: Outdoor lighting regulation is required to balance the need for safety and security while minimizing negative impacts such as light pollution, energy waste, and disturbance to wildlife.

CAF: These approaches align with Strategy BE-1, Actions #7 and #8 which give direction to develop green building standards for public and private buildings that include designing to dark-sky principles.

Applicability	Approach	Status	Submission Requirements
Low-rise	Nothing required.	N/A	N/A
Mid/High-rise	Require the use of lighting standards, fixtures, luminaries, and lighting designs (including photocells and timing mechanisms to limit lighting when daylight is adequate) to adhere to the DarkSky International standards.	Mandatory	Electrical and lighting plans.
Non-res	Same as Mid/High-Rise	Mandatory	Electrical and lighting plans
New Municipal	Same as Mid/High-rise. Additionally, ensure new streetlights are fully-shielded to reduce light trespass.	Mandatory (per City policy)	Electrical and lighting plans

Resources

- Responsible outdoor lighting. DarkSky Association guidelines for responsible outdoor lighting.
- International DarkSky Association Fixture Seal of Approval. Provides DarkSky Compliant resources, retailers, and database.

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4.3 Tree, Vegetation, and Soil Conservation

Intent: Enhance tree planting, vegetation, and soil quality to improve air quality, increase tree canopy coverage, increase biodiversity, and minimize urban heat islands.

CAF: These approaches align with several aspects of the CAF, including the Natural Systems & Water Resources section and most of its Strategies.

Applicability	Approach	Status	Submission Requirements
Low-rise	Not required.	N/A	N/A
Mid/High-rise	Use plantings with sustainable features like long-lived, large form, drought-tolerant, climate-resilient, low irrigation, and/or native to the Pacific Northwest. Achieve the City's recognition for Silver Leaf Status. **Incentive:** achieve Gold Leaf Status for tree coverage.	Mandatory + Incentive	Site plan.
Non-res	Same as Mid/High Rise	Mandatory + Incentive	Site plan.
New Municipal	Use long-lived, large form, drought-tolerant, climate-resilient, low irrigation, plantings native to the Pacific Northwest and retention of the mature canopy. Achieve the City's recognition for Gold Leaf Status for tree coverage.	Mandatory (per City policy)	Site plan.
Large and/or multi-building developments	Planned developments are required to achieve the City's recognition for Silver Leaf Status for tree coverage.	Mandatory	Site plan.

Resources

- Tree Canopy Achievement Program. The City of Vancouver's guidance to achieving tree canopy Bronze, Silver and Gold Leaf statuses.
- Tree Plan/Tree Removal. The City of Vancouver's submittal checklist for tree plans. This document will be updated to reflect the requirements.

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3.5 Existing Municipal Building Approaches

Current Status

The City of Vancouver owns 34 buildings, and operates all buildings except the Zhen Building, which is leased out for commercial purposes. The City has a varied mix of buildings for different purposes and of different sizes, with about half of the buildings constructed pre-1980. Most of the buildings currently rely on natural gas for space and water heating. Seventeen of the City buildings are already equipped with Level 2 electric vehicle chargers.

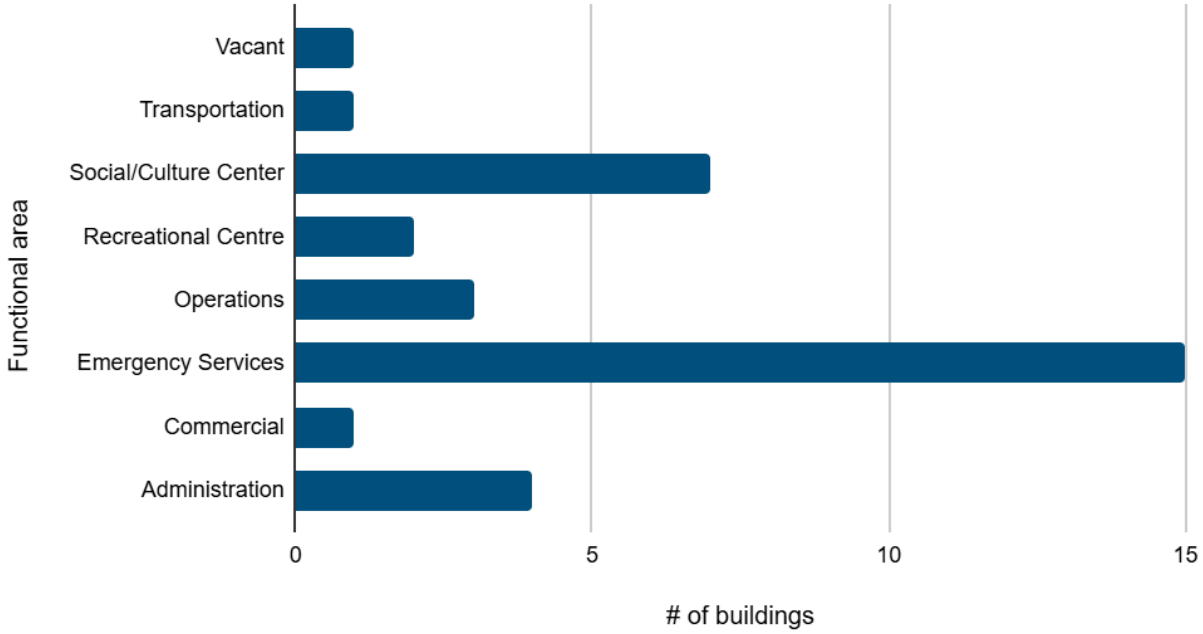

Figure 4. City buildings by function.

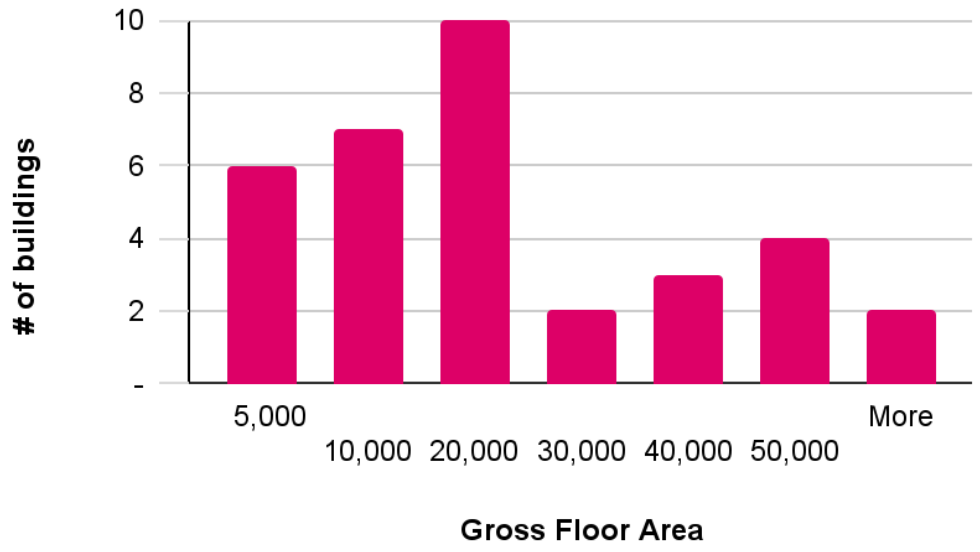

Figure 5. City buildings by gross floor area.

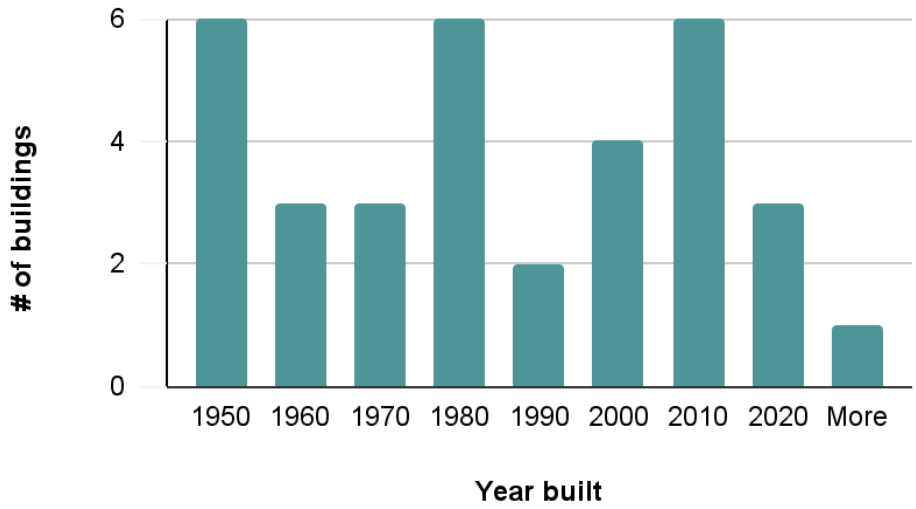

Figure 6. City buildings by year built.

The City is in the process of consolidating many of its Public Works and Facilities operations to a centralized campus site, which will result in the removal of three facilities from its building portfolio within the next 5 years—the Webber Building, the Zhen Building, and the Operations Site. The new campus presents an opportunity for the City to incorporate green building features as detailed in the previous section of this document.

GBP Leadership Goal for Municipal Buildings

The City will lead by building new facilities and upgrading its existing facilities to be highly energy efficient and to use 100% clean energy. This is in alignment with its goal of reducing GHG emissions from municipal operations by 80% by 2025 and achieving carbon neutrality by 2040. The City will make building improvements that enhance climate resilience and protect local ecosystems.

Note that in this context, municipal buildings are defined as buildings and facilities owned by the City of Vancouver.

Theme 1. Energy and Performance

1.1 Enroll City Facilities in the State's Clean Buildings Performance Standard, Tier 2.

Intent: Benchmark City facilities to compare performance against similar buildings in other jurisdictions and use best practices to inform facility upgrades.

Approach: All City facilities that meet the CBPS Tier 2 requirements will enroll in the program. City staff will use Energy Star Portfolio Manager to benchmark and report on operational energy performance.

1.2 Standardize the Components Needed for Electrification

Intent: Reduce costs and maintenance knowledge challenges by standardizing the electrical components used in City facilities upgrades.

Approach: Once facilities energy and emissions assessments are performed, identify appropriate makes and models of electrical components like heat pumps, electrical service infrastructure, solar PV panels, EV chargers, etc. that can be standardized across facility upgrades.

1.3 Identify, Prioritize, and Schedule Facility Retrofits

Intent: Identify facilities' retrofit needs for achieving carbon neutrality by 2040, prioritize facilities for upgrades, and perform energy efficiency, fuel switching, and renewable energy generation retrofits.

Approach: Perform, at minimum, ASHRAE Level 2 energy audits on all Tier 1 City facilities, with enough detail to support a robust data-driven financial analysis and accurate estimates of building energy performance, as well as to support analysis of GHG emissions reduction actions such as energy efficiency, fuel switching, heat recovery, and renewable energy generation measures. Level 1 audits should be standard at smaller City facilities, although Level 2 energy audits may be considered for Tier 2 facilities.

Create calibrated energy models of the major facilities in accordance with the requirements established in the current revision of ASHRAE 14. The energy model should include capacity to assess total envelope performance and electricity demand impacts, and account for future weather conditions. In consultation with City facility and asset managers, use the model to assess options

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for energy efficiency and emission reduction upgrades, generating different scenarios for each building.

Using the scenario modelling outputs, prioritize facility upgrades using these criteria: annual MTCO2e of GHG emissions, annual energy costs, age of facility, expected facility longevity, and estimated cost and savings of upgrades.

Create an upgrade schedule, identifying when each facility will be upgraded. Issue a request for proposals for standing offers for electrical, mechanical, and structural (etc.) engineering firms who can perform the assessments and deliver the retrofits. Engage the firms on standing offer over the course of the retrofit schedule to deliver the upgrades.

Consider the other existing municipal facilities approaches in this section over the course of assessment, planning, design, and implementation. Keep in mind that although HVAC equipment upgrades may be easier, building envelope upgrades decrease energy demand (and thus HVAC equipment sizing and cost), improve indoor comfort, and prolong building lifespan.

1.4 Reduce Electrical Service Capacity Upgrade Needs

Intent: Transitioning facilities to all-electric operations may require increasing their electrical service capacity. The required increase can be minimized through well-considered energy using technologies and whole-building energy efficiency approaches.

Approach: Conserve electrical capacity with combination heat pump/chillers. Chillers reserve electrical capacity year-round, even though they only operate for part of the year. If chillers are replaced with equipment that provides combined space cooling, space heating, and domestic hot water, the amount of additional electrical service capacity required may be reduced when transitioning the buildings' systems.

1.5 Use Hybrid Systems Where Existing Electrical Capacity or Capacity Upgrades are Constrained

Intent: Minimize carbon pollution by meeting as much energy demand as possible with electricity.

Approach: Where a facility's electrical capacity is (and must remain) constrained, use hybrid heat pump and natural gas boiler systems in which the heat pump maximizes the electrical capacity available and the size of the natural gas boiler is minimized. Compensate for natural gas use by producing surplus solar PV electricity on-site or at other City facilities.

1.6 Prioritize Energy Efficiency in Facilities

Intent: Reduce electrical capacity requirements and equipment size and energy demand by first making facilities more energy efficient.

Approach: When retrofitting facilities with HVAC components, first perform envelope, lighting, and appliance upgrades to reduce energy consumption. Investigate opportunities for thermal storage technology uses and implement, if viable. These actions will result in decreased energy demand, allowing for reduced electricity capacity and equipment size requirements.

Theme 2. Climate and Environmental Impacts

2.1 Perform Periodic Cost-Benefit Analyses of Battery Electric and Thermal Energy Storage Technologies

Intent: Reduce energy bills and electrical capacity upgrades using energy storage technologies.

Approach: When proactively or reactively upgrading facilities or their backup generators, investigate the performance and costs of battery electric and thermal energy storage technologies to determine if their use can reduce energy costs (for example, during peak load times), electrical capacity upgrade needs, and fossil fuel storage risks. Coordinate with CPUD on procurement and pricing.

2.2 Holistically Consider Roof Upgrades

Intent: Ensure roof replacements can accommodate improved insulation, sustainable roof approaches, and solar PV installations.

Approach: For end-of-life roofs or proactive roof replacements or upgrades, assess and, if necessary, upgrade the support structure in order to accommodate improved insulation, sustainable roof approaches, and solar PV installations if a building has been identified as a candidate for solar. Any upgrades will not preclude the addition of new solar, even if a roof upgrade does not include a full solar installation, ensuring future solar installations remain viable.

2.3 Perform EV Charger Facility Retrofits

Intent: Support City staff, City fleet, and public use of low- and zero-emissions vehicles

Approach: Retrofit civic buildings that routinely accommodate City staff and the public to comply with WAC 51-50-0429:

- 10% of parking stalls have Level 2 EV chargers installed;
- 10% of parking stalls are Level 2 EV-ready; and,
- 10% of parking stalls are Level 2 EV-capable.

Provide sufficient electrical service to simultaneously charge all EV stations. Provide all EV-ready and EV-capable spaces with minimum 40A electrical capacity each.

2.4 Perform Bicycle Facility Retrofits

Intent: Support City staff and public use of active transportation travel modes.

Approach: Provide long-term bike parking storage for 5% of FTE and short-term bike parking for 2.5% of peak-time visitors. Include shower facilities for staff at applicable City-owned facilities.

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Theme 3: Climate Resilience

3.1 Install Renewable Energy Systems

Intent: Use renewable energy in municipal facilities and help green the electricity grid.

Approach: Coinciding with approaches 1.3 and 2.2, assess the capacity for renewable energy installations at municipal facilities, including solar rooftop PV, ground mount solar, parking lot solar PV canopy, geothermal or ground source heating, and renewable district energy. Create a renewable energy installation plan and schedule in coordination with Clark PUD that includes 5-year targets for annual installation capacities.

3.2 Perform Refuge Area Facility Retrofits

Intent: Provide community refuge areas during extreme weather and natural disaster events.

Approach: Identify municipal facilities that could serve as refuge areas and retrofit them to have enclosed spaces that provide 72-hours of heating, cooling, potable water, and back-up power generation.

3.3 Perform HVAC System Air Quality Upgrades

Intent: Provide municipal facility staff and users with high quality air delivery and conditioning for improved health outcomes and protection against air pollution events like wildfires.

Approach: As part of approach 1.3, inspect HVAC systems to determine opportunities to upgrade filtration media accommodation and filtration media itself to at minimum MERV 13 rated. Create a servicing schedule to upgrade filtration media and perform HVAC retrofits as needed. Ensure routine facilities operations and maintenance work includes filtration media replacement schedules for each facility.

3.4 Cool Surfaces

Intent: Reduce the municipal facilities' contributions to the urban heat island effect.

Approach: Perform an assessment of municipal facilities' hardscape surfaces to identify repair and replacement needs. For any surfaces in need of repair or upgrade, consider replacement or retrofit with cool surface treatments. Additionally, plant trees where possible to shade hardscape surfaces. Create a municipal facility cool surface retrofits implementation schedule and set annual targets for hardscape upgrades.

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Theme 4. Ecology and Natural Systems

4.1 Perform Bird-friendly Facility Retrofits

Intent: Reduce bird impacts, injuries, and fatalities at City facilities.

Approach: Assess City facilities for bird safety threats and retrofit relevant facilities to include recommended features for bird-safe buildings, as feasible. Bird strike deterrent decals or other surface window treatments may be considered.

4.2 Perform Dark-sky Facility Retrofits

Intent: Keep night skies dark for wildlife and ecosystem well-being as well as human enjoyment.

Approach: Assess municipal facility outdoor lighting standards, fixtures, luminaries, etc. and prioritize retrofits based on location, security needs, luminosity, and retrofit costs. Retrofit approaches are required to adhere to DarkSky International Standards. Where appropriate, install timing mechanisms to automatically turn lights off at night.

Theme 5. Governance Recommendations

5.1 Create a City Green Investment Fund.

Intent: Creating a self-financing fund provides ongoing financing for City climate action projects.

Approach: Establish a dedicated Green Investment Fund that can accumulate interest and carry over balances from year to year. Draw from the Fund to finance City climate action projects (such as strategies and resultant projects listed here) and reinvest savings from these projects in the Fund. Broaden the current investment categories of solar PV installations and EV charging infrastructure to include building electrification and energy efficiency.

5.2 Coordinate Electrification Efforts with CPUD

Intent: Minimize the need for electric utility infrastructure upgrades.

Approach: When upgrading or adding to facilities' energy using equipment, coordinate with CPUD to identify holistic approaches to electricity demand management that minimize electricity capacity increases, thus avoiding or minimizing the need for electricity transmission infrastructure upgrades. Where infrastructure upgrades are required, find approaches that minimize cost, such as upgrading the infrastructure for multiple facilities at once, instead of one at a time.

Other Considerations

Annex VI: Recommendations for Reducing GHG Emissions from City of Vancouver Municipal Buildings includes recommendations for specific City facilities. Please refer to this Annex for details on these and other recommendations presented in this section.

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3.6 Green Buildings Program Incentives

The incremental costs of green buildings can vary significantly based on design, site location, and materials availability. However, there is an inherent cost and steep learning curve associated with implementing new methods and technologies, which was highlighted several times during engagement with the construction and development industry over the course of developing the GBP.

The City acknowledges this issue and offers incentives to make green buildings more financially viable and to promote widespread adoption of sustainable building practices in Vancouver.

The GBP points system assigns points depending on the difficulty of implementation and the degree of impact of GBP approaches. Proposed developments are awarded points depending on approaches chosen. Depending on the total number of points accumulated, the project will achieve different incentive tier levels, with the higher tier offering more benefits.

The tiers and incentives are summarized in Table 4. This table will be updated once the City's Comprehensive Plan is updated.

Table 4: GBP incentive tiers.

Tier One Incentives		
1	Compliance Coaching for Program Standards	
2	Expedited Land Use, Engineering, Building Review	
3	10% Building Permit Fee Rebate for fees under $10,000	Rebate following Certificate of Occupancy Issuance
4	20% Building Permit Fee Rebate for fees of $10,000 and more; max rebate of $5,000	Rebate following Certificate of Occupancy Issuance
Tier Two Incentives		
1	Compliance Coaching for Program Standards	
2	20% Building Permit Fee Rebate for fees under $10,000	Rebate following Certificate of Occupancy Issuance
3	25% Building Permit Fee Rebate for fees greater or equal to $20,000; max rebate of $25,0000	Rebate following Certificate of Occupancy Issuance
4	Deferral of System Development Charges to Final Building Inspection	
5	Deferral of Park Impact Fees to Final Building Inspection	
6	Deferral of Transportation Impact Fees to Final Building Inspection	
7	Up to 12-foot building height bonus unless limited by FAA	
8	Eligible for Green Building Awards Program	

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Implementation of Incentives

The City will need to take specific actions for the above recommended incentives to be implemented, as follows:

1. Source funding for a coaching program for applicants to navigate the green building requirements and incentives for project compliance. The City will determine whether this can be achieved with additional internal staff or outsourced to a third-party contractor.

2. Adopt amendments to the VMC Title 17 (Building Code) to enable the recommended partial rebates of city permit fees for qualifying projects.

3. Adopt amendments to the VMC Title 20 (Land Use and Development Code) to enable the recommended reductions in parking spaces, deferral of impact fees, and allowance for additional building height for qualifying projects.

4. Adopt amendments to the VMC Title 14 (Water and Sewer) to enable the recommended deferral of System Development Charges for qualifying projects.

5. Adopt a new City policy (coordinated between CDD, Fire and Public Works) to enable the recommended expedited land use, engineering and building review process for qualifying projects.

6. Establish a new Green Building Awards Program, either as a city program, or as a jointly sponsored program with other jurisdictions and/or building associations.

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3.7 City Support Mechanisms

To further accelerate deployment of green building projects, the City of Vancouver is considering the following support mechanisms (Table 5).

Table 5: Potential GBP supporting mechanisms.

	Supporting mechanism	Description
1	Improve internal capacity to facilitate GBP program delivery	This mechanism could entail: • Building City staff expertise—particularly with City planners, building plan reviewers, inspectors, and engineers—to competently advise and review submissions. • Updating permitting processes—including forms, checklists, guidelines, templates—and upgrading City online content to reflect GBP requirements. • Developing a concierge program and producing training materials and workshops to assist the development community in navigating the new GBP processes.
2	Collaborate with local organizations that provide technical assistance and programs	Leverage local organizations' expertise and networks to increase industry knowledge and capacity to deliver green building projects. Examples of collaborations are: • Working with Clark County Building Industry Association, architects associations, and contractors associations to deliver technology-focused workshops for their members. • Working with local chapters of mass timber advocacy groups, low-carbon concrete advocacy groups, the Forest Stewardship Council, and other organizations with expertise in embodied carbon materials to help construction industry professionals access related knowledge, guidance, and resources. • For embodied carbon materials in particular, technical guidance on how to incorporate these materials during design and construction, examples of bidding language, access to trusted suppliers and experienced contractors.
3	Educate the public and promote the benefits of GBP	Engage with residents and businesses to help spur market demand for green buildings through public awareness campaigns with online or in-person activities. Highlight the benefits of green building features, especially from the lens of comfort and affordability.

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4	Showcase exemplary buildings	Leverage benchmarking results to recognize, award, and promote exemplary projects. This is an effective way to motivate early adopters in the development, design, and construction industry.
5	Advocate for green building initiatives, policies, and incentives	Build internal advocacy capacity and network with peer municipalities to advocate at state and national levels for ambitious green building initiatives, policies, and incentives solutions. Building electrification is one example of an advocacy issue that would have positive local implications if adopted at state-level.

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4 | Closing Remarks

Over the past few decades, concerted efforts have been made in jurisdictions around the world to understand how buildings can use energy more efficiently, how their indoor environments can be more comfortable, how they can be built more affordably, and how they can be built and operate with minimal carbon pollution or none at all. Certification programs like LEED, Living Building Challenge, and Passive House have challenged design and construction teams to push the limits of what they thought possible and achieve incredibly sustainable new buildings.

These ambitious efforts have demonstrated what is possible in the building industry. At the same time, design and construction teams have shown that achieving these types of buildings doesn't have to come at a large cost premium. Structural, materials, electrical, and HVAC approaches have evolved. There is now enough experience and expertise in the field that the real and perceived design, operation, and cost risks of creating sustainable, energy efficient buildings can be achieved without little to no cost premium.

Parallel to these efforts and evolutions, building and equipment technologies have progressed significantly. Solar panels are lighter and produce electricity more efficiently. Electric heat pumps have made heating and cooling incredibly energy efficient, consistent, and cost-effective. Products like exterior insulated panel systems have simplified construction while improving buildings' thermal performance.

The GBP harnesses these advancements to strike a balance. Meeting the Climate Action Framework emissions targets will be challenging. The GBP phases in the stringency and requirements of several approaches to balance ambition with learning and skills development in the local design and construction industry. Borrowing only the most relevant direction from the Seattle Code, the GBP uses the same code pathways as the state building and energy codes but with extra ambition. This way, targets can be met without placing undue burdens and costs on design teams and developers.

The confluence of these elements will result in modern buildings with better energy performance and lower embodied and operational GHG emissions. These buildings will be more comfortable, have healthier indoor environments, have lower energy costs, and low environmental impacts. Through the Green Building Program, Vancouver will build more sustainable, healthy, and equitable buildings now and in the decades to come.

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CITY OF Vancouver WASHINGTON

Green Building Strategy

Annex I: Modeling Scope, Method, and Process

Prepared by SSG

September 2024

Draft V1

Overview

This modeling scope, method, and process manual details the approaches, assumptions, and calculations used to assess energy, emissions, and finances scenarios. The manual makes the modeling elements fully transparent.

Modeling Scope

Geographic Boundary

The geographic boundary of the modeling assessment is the municipal boundary of the City of Vancouver, Washington (Figure 1). The model uses a zone system with 312 zones. The zones are used to assess building energy use and greenhouse gas emissions spatially.

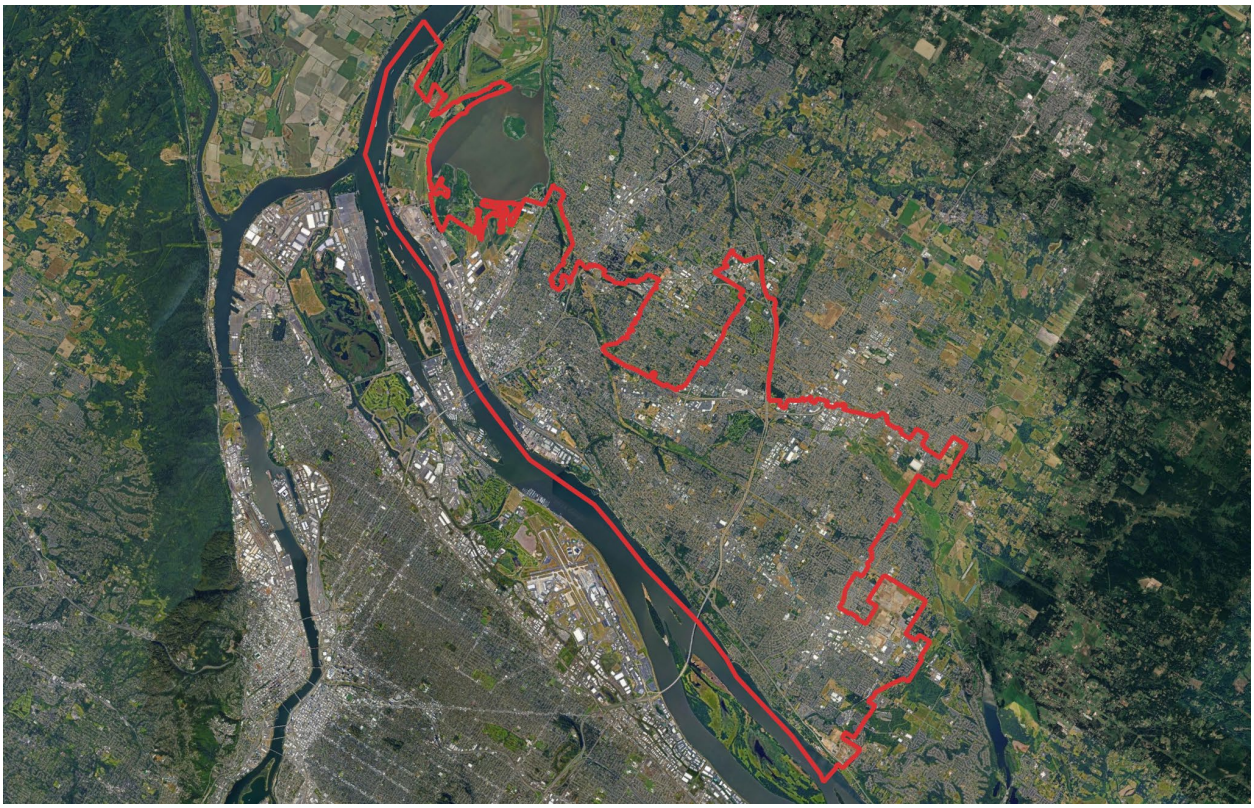

Figure 1. Assessment boundary for the City of Vancouver, Washington with the zones used in the modeling process.

Time Scope

The model is time-bound with the following parameters and rationale:

- The assessment covers the years from 2021 to 2050;
- The year 2021 is used as the base year within the model. The rationale is:
    - The model requires the calibration of a base year system state (initial conditions) using as much observed data as possible in order to develop an internally consistent snapshot of the city.
    - The highest number of key data sources for the model were available for 2021.
- 1-year increments are modelled from the 2021 base year; and
- Projections extend to 2050.

Emissions Scope

The GHG emissions scope uses the Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories (GPC) Scopes 1 and 2 and some aspects of Scope 3 (Figure 2) for the stationary energy sector. Table 1 further defines each scope.

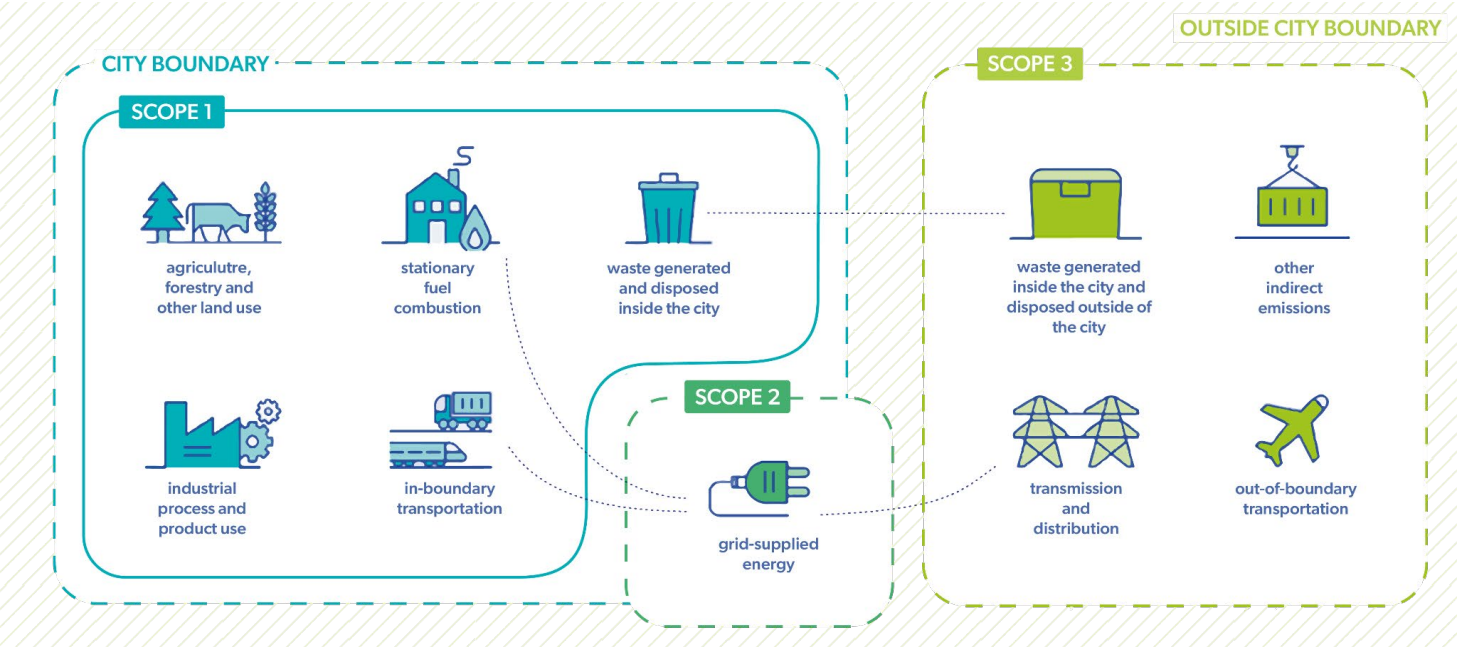

Figure 2. GPC emissions scopes as they relate to geographic and inventory boundaries.[1]

[1] Image created based on: Consumption-Based Inventories of C40 Cities. https://www.c40.org/researches/consumption-based-emissions

Table 1. GPC scope definitions.

Scope	Definition
1	All GHG emissions from sources located within the municipal boundary.
2	All GHG emissions occurring from the use of grid-supplied electricity, heat, steam and/or cooling within the municipal boundary.
3	All other GHG emissions that occur outside the municipal boundary as a result of activities taking place within the boundary.

The relevant emissions sources for Vancouver, Washington and their emissions scope are detailed in Table 2. Of note is the treatment of local electricity supplied to the grid: all emissions reductions from new local energy generation are accounted for locally, rather than distributed through the central electricity grid. However, central electrified generation facilities located within municipal boundaries, are only accounted for through the electricity grid emissions factor. This distinction is made because the current central electricity generation is already accounted for through the grid emissions factor. Reporting on such a facility is not required under GPC Protocol BASIC or BASIC+. New local energy generation projects are not included in electricity emissions factor projections.

Table 2. Sources included in Vancouver, Washington's model.

	Scope 1	Scope 2	Scope 3	Notes
Stationary Energy (buildings)				
Residential buildings	Y	Y		
Commercial and institutional buildings and facilities	Y	Y		
Manufacturing industries and construction	Y	Y		
Energy industries	N	N		Not relevant (NR)
Energy generation supplied to the grid	N	Y		
Agriculture, forestry, and fishing activities	N	N		Not relevant (NR)
Non-specified sources	N	N		Not relevant (NR)
Fugitive emissions from mining, processing, storage, and transportation of coal				Not applicable (NA)
Fugitive emissions from oil and natural gas systems	Y			

Emissions Factors

Emissions factors are representative values that relate the use of a given unit of an energy source to the average greenhouse gas emissions it emits, typically measured in carbon dioxide equivalents (CO2e). Examples include grid electricity and natural gas distribution and use. Table 3 describes the emissions accounting framework and sources for global warming potentials used in the analysis and Table 4 describes the emissions accounting framework used in the Vancouver, Washington model, and the locally relevant emissions factors for the baseline year.

Table 3. Emissions accounting framework and global warming potential.

Category	Base Year Data/Assumption	Source
Accounting Framework		
Accounting Framework	Global Protocol for Community-Scale GHG Emission Inventories (GPC)	Global Protocol for Community-Scale GHG Emission Inventories (GPC)
Emissions scope	Scope 1, 2 and partial Scope 3	See GPC emissions scope table for Scope 3 items included.
Sectors	Stationary energy (buildings) Transportation Waste	See GPC emissions scope table for sectors and sub-sectors included.
Boundary	Municipal boundary of Vancouver, Washington	City of Vancouver, Washington
Reporting	GPC BASIC & partial BASIC+	Global Protocol for Community-Scale GHG Emission Inventories (GPC)
Transportation methodology	GPC induced activity method	Global Protocol for Community-Scale GHG Emission Inventories (GPC)
Base year	2021	N/A
Projection year	2050	N/A
Global Warming Potential		

Greenhouse gases	Carbon dioxide (CO2), methane (CH4) and nitrous oxide (N20) are included. GWP: CO2 = 1 CH4 = 34 N2O = 298 Hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF6) and nitrogen trifluoride (NF3) are not included.	Myhre, G. et al., 2013: Anthropogenic and Natural Radiative Forcing. Table 8.7. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

Table 4. Emissions factors for fuels in Vancouver, Washington"s model.

Category	Base Year Data/Assumption	Source
Emissions Factors		
Natural gas	48.3 kg CO2e/GJ CO2: 1921 g/m3 CH4: 0.037 g/m3 N2O: 0.035 g/m3	Environment and Climate Change Canada. National Inventory Report 1990-2021: Greenhouse Gas Sources and Sinks in Canada. Annex 6. Tables A6-1-3.
Electricity	2021: 28.5 gCO2e/kWh 2050: 97 gCO2e/kwh 2021: CO2: 28 g/kWh CH4: 0.007 g/kWh N2O: 0.001 g/kWh 2050: CO2: 95.5 g/kWh CH4: 0.02 g/kWh N2O: 0.003 g/kWh	Environment and Climate Change Canada. National Inventory Report 1990-2021: Greenhouse Gas Sources and Sinks in Canada. Annex 13. Table A13-7. IESO, Annual Planning Outlook December 2022.
Gasoline	Light Duty Vehicles CO2: 2307 g/L CH4: 0.14 g/L N2O: 0.022 g/L Heavy Duty Vehicles CO2: 2307 g/L CH4: 0.068 g/L N2O: 0.20 g/L	Environment and Climate Change Canada. National Inventory Report 1990-2021: Greenhouse Gas Sources and Sinks in Canada. Annex 6. Tables A6-1-14.

Diesel	Light Duty Vehicles[2] CO2: 2681 g/L CH4: 0.055 g/L N2O: 0.21 g/L Heavy Duty Vehicles CO2: 2681 g/L CH4: 0.11 g/L N2O: 0.15 g/L	Environment and Climate Change Canada. National Inventory Report 1990-2021: Greenhouse Gas Sources and Sinks in Canada. Annex 6. Tables A6-1-14.
Fuel oil	Residential CO2: 2753g/L CH4: 0.026 g/L N2O: 0.006 g/L Commercial CO2: 2753 g/L CH4: 0.026 g/L N2O: 0.031 g/L Industrial CO2: 2753 g/L CH4: 0.006 g/L N2O: 0.031 g/L	Environment and Climate Change Canada. National Inventory Report 1990-2021: Greenhouse Gas Sources and Sinks in Canada. Annex 6. Tables A6-1-5.
Wood	Residential CO2: 85.5 kg/GJ CH4: 0.72 kg/GJ N2O: 0.007 kg/GJ Commercial CO2: 85.5 kg/GJ CH4: 0.72 kg/GJ N2O: 0.007 kg/GJ Industrial CO2: 95.3 kg/GJ CH4: 0.006 kg/GJ N2O: 0.004 kg/GJ	Environment and Climate Change Canada. National Inventory Report 1990-2021: Greenhouse Gas Sources and Sinks in Canada. Annex 6. Table A6.6–1.
Propane	Transport CO2: 1515 g/L CH4: 0.64 g/L N2O: 0.028 g/L Residential CO2: 1515 g/L CH4: 0.027 g/L N2O: 0.108 g/L All other sectors CO2: 1515 g/L CH4: 0.024 g/L N2O: 0.108 g/L	Environment and Climate Change Canada. National Inventory Report 1990-2021: Greenhouse Gas Sources and Sinks in Canada. Annex 6. Tables A6-1-4 and A6-1-14.

[2] Weighted average assuming 75/25 split between cars and light trucks.

Waste and wastewater	Wastewater emissions factors: CH4: 0.48 kg CH4/kg BOD N2O: 0 g / (person * year) from direct emissions 0.005 g /g N from wastewater discharge Landfill emissions are calculated from first-order decay of degradable organic carbon deposited in landfill derived emission factor in 2021 = 0.039 tonnes CH4/tonnes solid waste	CH4 wastewater: IPCC Guidelines Vol 5 Ch 6, Tables 6.2 and 6.3, we use the MCF value for anaerobic reactor Direct N2O: 2019 Refinement to the 2006 IPCC Guidelines, Vol 5 Ch 6 Table 6.8A for anaerobic reactor Indirect N2O from wastewater discharge: IPCC Guidelines Vol 5 Ch 6 Section 6.3.1.2 Landfill emissions: IPCC Guidelines Vol 5 Ch 3, Equation 3.1

Modeling Method

About Scena

Scena is an integrated, spatially-disaggregated energy, emissions, and finance model developed by Sustainability Solutions Group and whatIf? Technologies. The model enables bottom-up accounting for energy supply and demand, including renewable resources, conventional fuels, energy consuming technology stocks (e.g., vehicles, heating systems, dwellings, buildings), and all intermediate energy flows (e.g. electricity and heat).

Scena incorporates and adapts concepts from the system dynamics approach to complex systems analysis. Energy and GHG emissions are derived from a series of connected stock and flow models. The model accounts for physical flows (i.e., energy use, new vehicles, vehicle miles travelled) as determined by stocks (i.e., buildings, vehicles, heating equipment, etc). For any given year within its time horizon, Scena traces the flows and transformations of energy from sources through energy currencies (e.g., gasoline, electricity) to end uses (e.g., personal vehicle use, space heating) to energy costs and to GHG emissions. The flows evolve on the basis of current and future geographic and technology decisions/assumptions (e.g., EV uptake rates). An energy balance is achieved by accounting for efficiencies, conservation rates, and trade and losses at each stage in the journey from source to end use. Characteristics of Scena are described in Table 1.

The model is spatially explicit. All buildings, transportation and land use data is tracked within the model through a GIS platform, and by varying degrees of spatial resolution. Where applicable, a zone type system can be applied to break up the city into smaller configurations. This enables consideration of the impact of land-use patterns and urban form on energy use and emissions production from a baseline year to future dates using GIS-based platforms. Scena's GIS outputs can be integrated with city mapping systems.

Table 5. Characteristics of Scena.

Characteristic	Rationale
Integrated	Scena is designed to model and account for all sectors that relate to energy and emissions at a city scale while capturing the relationships between sectors. The demand for energy services is modelled independently of the fuels and technologies that provide the energy services. This decoupling enables the exploration of fuel-switching scenarios. Physically feasible scenarios are established when energy demand and supply are balanced.
Scenario-based	Once calibrated with historical data, Scena enables the creation of dozens of scenarios to explore different possible futures. Each scenario can consist of either one or a combination of policies, actions and strategies. Historical calibration ensures that scenario projections are rooted in observed data.
Spatial	The configuration of the built environment determines the ability of people to walk and cycle, accessibility of transit, and the viability of district energy, among other aspects. Scena, therefore, includes a full spatial dimension that can include as many zones - the smallest areas of geographic analysis - as are deemed appropriate. The spatial component to the model can be integrated with City GIS systems, land-use projections and transportation modeling.
GHG reporting framework	Scena is designed to report emissions according to the GHG Protocol for Cities (GPC) framework and principles.
Economic impacts	Scena incorporates a full financial analysis of costs related to energy (expenditures on energy) and emissions (carbon pricing, social cost of carbon), as well as operating and capital costs for policies, strategies and actions. It allows for the generation of marginal abatement curves to illustrate the cost and/or savings of policies, strategies and actions.

Model Structure

The major components of the model (sub-models), and the first level of modelled relationships (influences), are represented in Figure 1. These sub-models are all interconnected through various energy and financial flows. Additional relationships may be modelled in Scena by modifying inputs and assumptions—specified directly by users, or in an automated fashion by code or scripts running "on top of" the base model structure. Feedback relationships are also possible, such as increasing the adoption rate of non-emitting vehicles in order to meet a particular GHG emissions constraint.

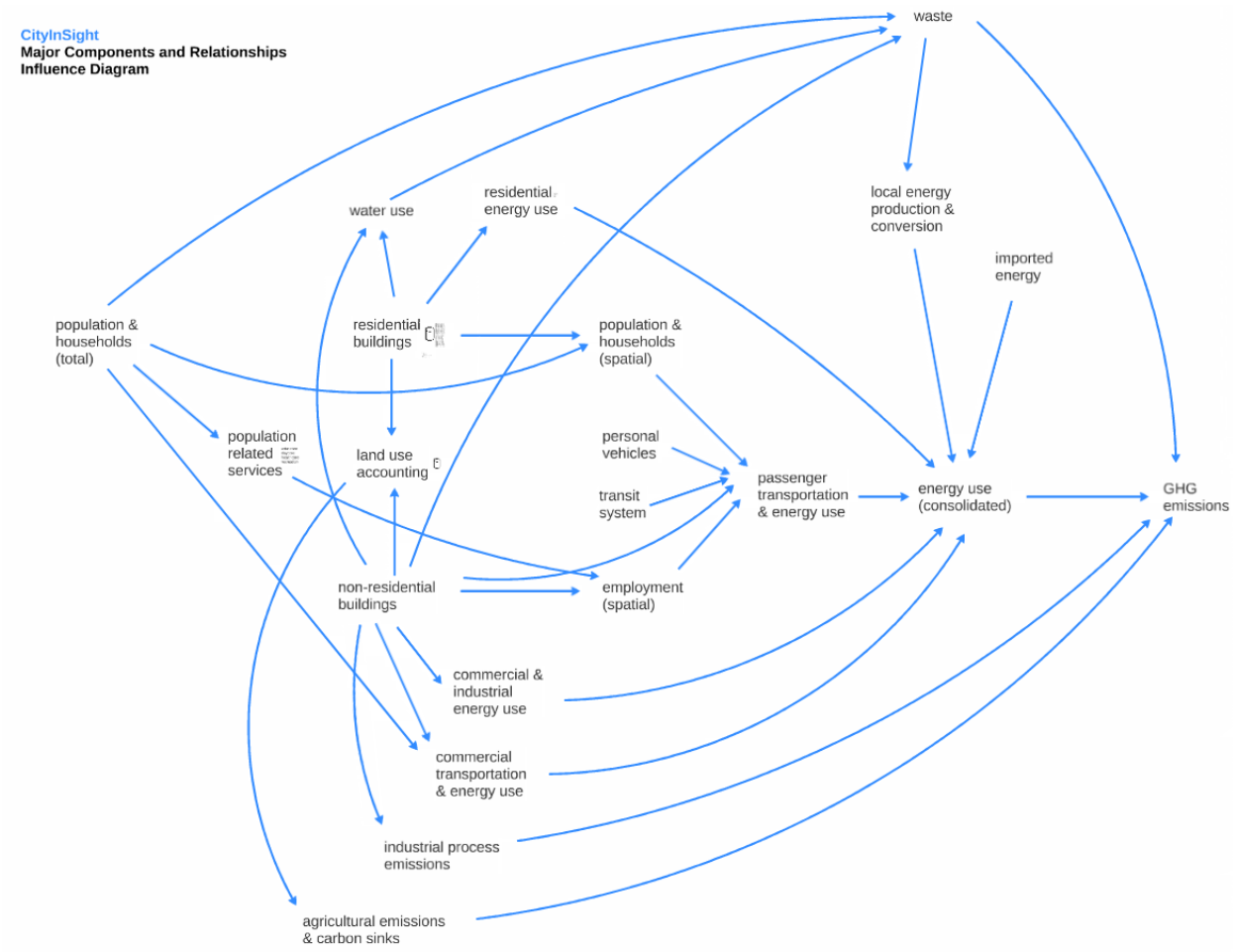

Figure 3. Representation of Scena's structure.

Stocks and Flows

Within each sub-model is a number of stocks and flows that represent energy and emissions processes in cities. For any given year, various factors shape the picture of energy and emissions flows in a city, including the population and the energy services it requires; commercial floorspace; energy production and trade; the deployed technologies which deliver energy services (service technologies); and the deployed technologies which transform energy sources to currencies (harvesting technologies). The model makes an explicit mathematical relationship between these factors—some contextual and some part of the energy consuming or producing infrastructure—making up the energy flow picture.

Some factors are modelled as stocks: counts of similar things, classified by various properties. For example, population is modelled as a stock of people classified by age and gender. Population change over time is projected by accounting for: the natural aging process, inflows (births, immigration) and outflows (deaths, emigration). The fleet of personal vehicles, an example of a service technology, is modelled as a stock of vehicles classified by size, engine type and model year—with a similarly-classified fuel consumption intensity. As with population, projecting change in the vehicle stock involves aging vehicles and accounting for major inflows (new vehicle sales) and major outflows (vehicle discards). This stock-turnover approach is

applied to other service technologies (e.g., furnaces, water heaters) and also harvesting technologies (e.g., electricity generating capacity).

Sub-models

The stocks and flows that make up each sub-model are described below.

Population, Households, and Demographics

- City-wide population is modelled using the 'standard population cohort-survival method', which tracks population by age and gender on a year-by-year basis. It accounts for various components of change: births, deaths, immigration and emigration.
- Population is allocated to households, and these are placed spatially in zones, via physical dwellings (see land-use accounting sub-model).
- The age of the population is tracked over time, which is used for analyzing demographic trends, generational differences and implications for shifting energy use patterns.
- The population sub-model influences energy consumption in various sub-models:
    - School enrollment totals (transportation)
    - Workforce totals (transportation)
    - Personal vehicle use (transportation)
    - Waste generation

Building Land-Use Accounting

Land use accounting identifies buildings in space and over time, through construction, retrofits and demolitions. In the baseline, this is often directly informed by building-related geospatial data. Land use accounting consists of the following elements:

- Quantitative spatial projections of residential dwelling units, by:
    - Type of residential structure (single detached, semi-detached, row house, apartment, etc);
    - Development type (greenfield, intensification); and
    - Population assigned to dwelling units.
- Quantitative spatial projections of non-residential buildings, by:
    - Type of non-residential structure (retail, commercial, institutional);
    - Development type (greenfield, intensification);

    - Buildings are further classified into archetypes (such as school, hospital, industrial - see Table 2).[3] This allows for the model to account for differing intensities that would occur in relation to various non-residential buildings; and
    - Jobs are allocated to zones via non-residential floor area, using a floor area per worker intensity.
- Land-use accounting takes "components of change" into account, year over year:
    - New development;
    - Removals/demolitions; and
    - Year of construction.
- Land-use accounting influences other aspects of the model, notably:
    - Passenger transportation: the location of residential buildings influences where home-to-work and home-to-school trips originate, which in turn also influences their trip length and the subsequent mode selected. Similarly, the location and identification of non-residential buildings influences the destination for many trips. For example, buildings identified as schools would be identified in home-to-school trips.
    - Access to energy sources by buildings: building location influences access to energy sources, for example, a rural dwelling may not have access to natural gas or a dwelling may not be in proximity to an existing district energy system. It can also be used to identify suitable projects: for example, the location and density of dwellings is a consideration for district energy development.
    - Non-residential building energy: the identification of non-residential building archetypes influences their energy consumption based on their use type. For example, a building identified as a hospital would have a higher energy use intensity than a building identified as a school.

Table 6. Non-residential archetypes represented in the model.

- College, university - School - Retirement or nursing home - Special care home - Hospital - Municipal building - Fire station - Penal institution - Police station - Military base or camp - Transit terminal or station - Airport	- Commercial retail - Commercial - Commercial residential - Retail residential - Warehouse commercial - Warehouse - Religious institution - Surface infrastructure - Energy utility - Water pumping or treatment station - Industrial generic - Food processing plants

[3] Where possible, this data comes directly from the municipality.

- Parking - Hotel motel inn - Greenhouse - Greenspace - Recreation - Community centre - Golf course - Museums, art gallery - Retail - Vehicle and heavy equipment service - Warehouse retail - Restaurant	- Textile manufacturing plants - Furniture manufacturing plants - Refineries all types - Chemical manufacturing plants - Printing and publishing plants - Fabricated metal product plants - Manufacturing plants miscellaneous processing plants - Asphalt manufacturing plants - Concrete manufacturing plants - Industrial farm - Barn

Residential and Non-Residential Building Energy

Building energy consumption is closely related to the land use accounting designation it receives, based on where the building is located, its archetype, and when it was constructed. Building energy consumption is calculated in the model by considering:

- Total energy use intensity of the building type (including the proportion from thermal demand) is built from energy end uses in the building. End uses include heating, lighting, auxiliary demand, etc. The energy intensity of end uses is related to the building or dwelling archetype and its age.
- Energy use by fuel is determined based on the technologies used in each building (e.g. electricity, heating system types). Heating system types are assigned to building equipment stocks (e.g., heating systems, air conditioners, water heaters).
- Building energy consumption in the model also considers:
    - Solar gains and internal gains from sharing walls;
    - Local climate (heating and cooling degree days); and
    - Energy losses in the building.
- Building equipment stocks (water heaters, air conditioners) are modelled with a stock-turnover approach that captures equipment age, retirements, and additions. In future projections, the natural replacement of stocks is often used as an opportunity to introduce new (and more efficient) technologies.

The model has residential and non-residential building energy sub-models. They influence and produce important model outputs:

- Total residential energy consumption and emissions and residential energy and emissions by building type, by end use, and by fuel;
- Total non-residential energy consumption and emissions and residential energy and emissions by building type, by end use, and by fuel; and

- Local/imported energy balance: how much energy will need to be imported after considering local capacity and production.

Figure 4 details the flows in the building energy sub-model at the building level.

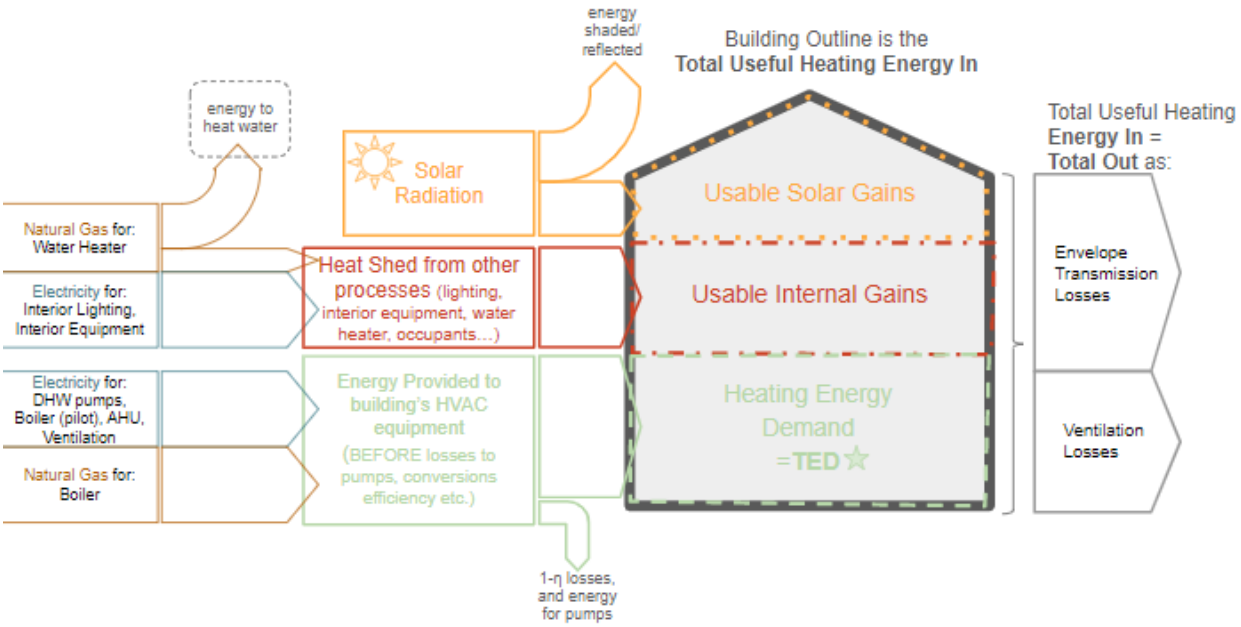

Figure 4. Building energy sub-model schematic.

Transportation

Scena includes a spatially explicit passenger transportation sub-model that responds to changes in land use, transit infrastructure, vehicle technology, travel behavior changes, and other factors. It has the following features:

- Scena uses the induced method for accounting for transportation-related emissions; the induced method accounts for in-boundary tips and 50% of transboundary trips that originate or terminate within the city boundary. This shares energy and GHGs between municipalities.
- The model accounts for "trips" in the following sequence:
    1. Trip generation. Trips are divided into four types (home-work, home-school, home-other, and non-home-based), each produced and attracted by different combinations of spatial influences identified in the land-use accounting sub-model: dwellings, employment, classrooms, non-residential floorspace.
    2. Trip distribution. Trips are then distributed with the number of trips specified for each zone of origin and zone of destination pair. Origin-Destination (O-D) matrix data is based on local travel surveys and transportation models.
    3. Mode share. For each origin-destination pair, trips are shared over walk/bike, public transit and automobile.

a. Walk / bike trips are identified based on a distance threshold: ~2km for walking, ~5-10km for biking.

b. Transit trips are allocated to trips with an origin or destination within a certain distance to a transit station.

4. Vehicle distance. Vehicle miles travelled (VMT) are calculated based on the number of trips by mode and the distance of each trip based on a network distance matrix for the origin-destination pairs.

- VMT is also assigned to a stock of personal vehicles, based on vehicle type, fuel type, and fuel efficiency. The number of vehicles is influenced by the total number of households identified in the population sub-model. Vehicles also use a stock-turnover approach to model vehicle replacements, new sales and retirements.
- The energy use and emissions associated with personal vehicles is calculated by VMT of the stock of personal vehicles and their type, fuel and efficiency characteristics.
- The personal mobility sub-model is one of the core components of the model. It influences and produces important model outputs:
    - Total transportation energy consumption by fuel, including electricity consumption
    - Active trips and transit trips, by zone distance.

Trips accounted for in the model are displayed in Figure 5.

Figure 5. Trips assessed in the personal mobility sub-model.

Waste

Households and non-residential buildings generate solid waste and wastewater, and the model traces various pathways to disposal, compost and sludge. If present in the city, the model can also capture energy recovery from incineration and biogas. Waste generation is translated to landfill emissions based on first order decay models of carbon to methane.

Local Energy Production

The model accounts for energy generated within city boundaries. Energy produced from local sources (e.g., solar, wind, biomass) is modelled alongside energy imported from other resources (e.g., the electricity grid and the natural gas distribution system). The model accounts for conversion efficiency. Local energy generation can be spatially defined.

Financial and Employment Impacts

Energy-related financial flows and employment impacts are captured through an additional layer of model logic. Costs are calculated as new stock is incorporated into the model, through energy flows (annual fuel costs), as well as other operating and maintenance costs. Costs are based on a suite of assumptions that are input into the model. See Section 6 for financial variables tracked within the model.

Employment is calculated based on non-residential building archetypes and their floor area. Employment related to investments are calculated using standard employment multipliers, often expressed as person-years of employment per million dollars of investment.

Energy and GHG Emissions Accounting

Scena accounts for the energy flows through the model, as shown in Figure 6.

Source fuels crossing the geographic boundary of the city are shown on the left. The four “final demand” sectors—residential, commercial, industrial, and transportation—are shown towards the right. Some source fuels are consumed directly in the final demand sectors (e.g., natural gas used by furnaces for residential heating, gasoline used by personal vehicles for transportation). Other source fuels are converted to another energy carrier before consumption in the final demand sectors (e.g., solar energy converted to electricity via photovoltaic cells, natural gas combusted in heating plants and the resulting hot water distributed to end-use buildings via district energy networks). Finally, efficiencies of the various conversion points (end uses, local energy production) are estimated to split flows into either “useful” energy or conversion losses at the far right side of the diagram.

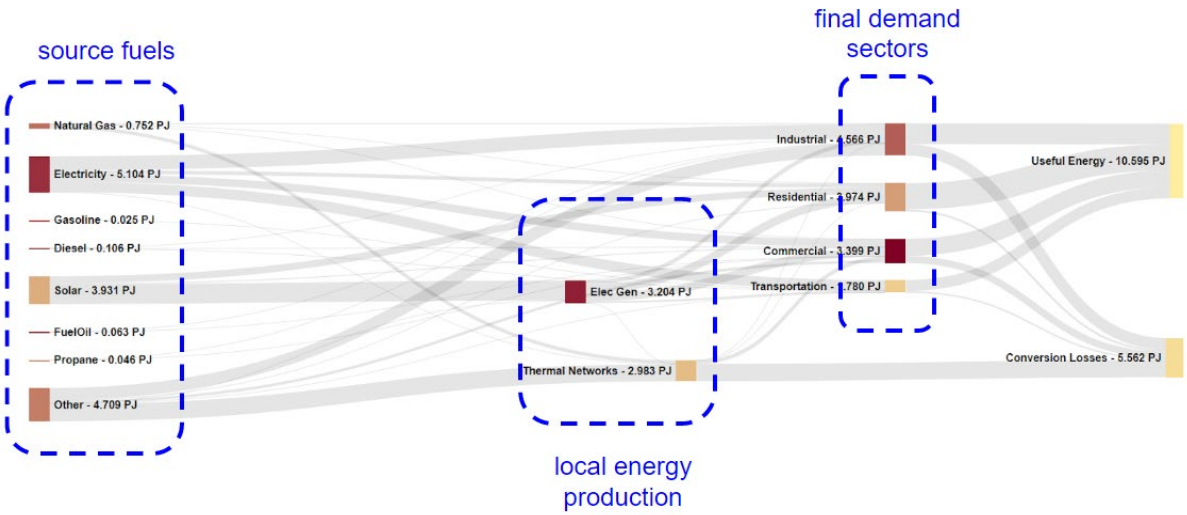

Figure 6. Energy flow Sankey diagram showing main node groups.

Figure 6 above shows the potential for ambiguity when energy is reported: which energy flows circled are included and how does one prevent double counting? To address these ambiguities, Scena defines two main energy reports:

- Energy Demand, shown in Figure 7. Energy Demand includes the energy flows just before the final demand sectors (left of the dotted red line). Where the demand sectors are supplied by local energy production nodes, the cut occurs after the local energy production and before demand.
- Energy Supply, shown in Figure 8. Energy Supply includes the energy flows just after the source fuel nodes (left of the dotted red line). Where the source fuels supply local energy production nodes, the cut occurs between the source fuels and local energy production.

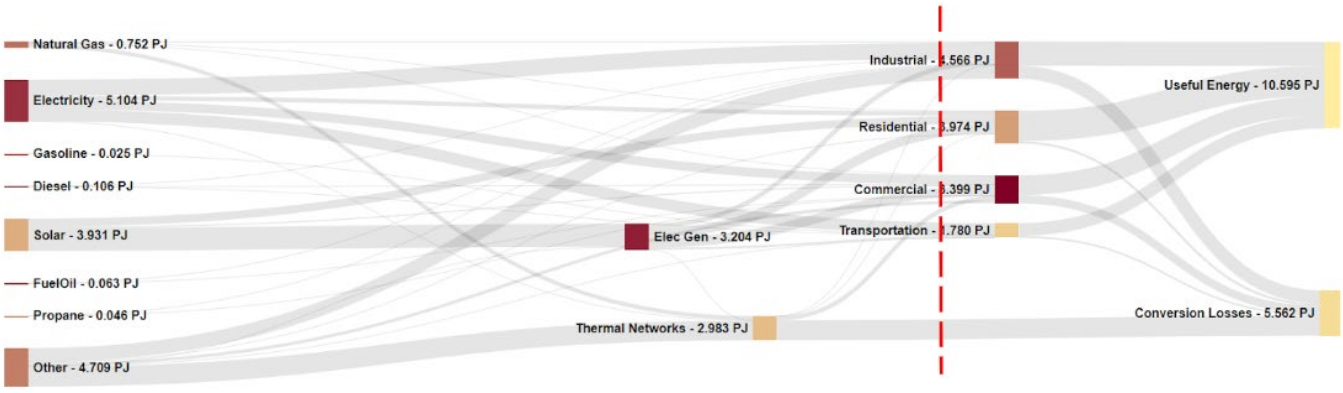

Figure 7. Energy Demand report definition.

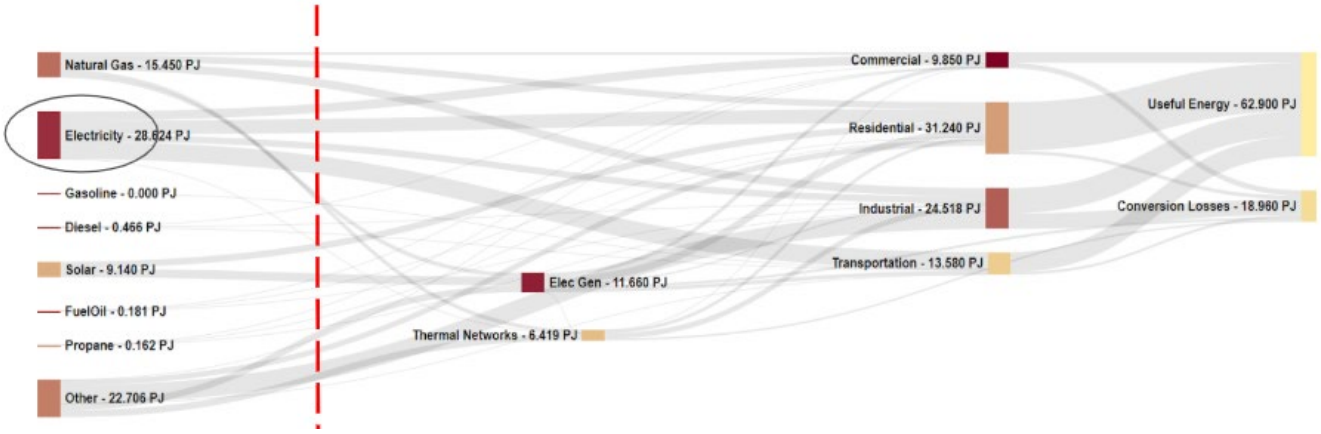

Figure 8. Energy Supply report definition.

In the integrated Scena energy and emissions accounting framework, GHG emissions are calculated after energy consumption is known.

Financial Accounting

The model also has a financial dimension expressed for most of its stocks and flows. Costs and savings modeling considers:

- Upfront capital expenditures: this is related to new stocks, such as new vehicles or new building equipment.
- Operating and maintenance costs: Annualized costs associated with stocks, such as vehicle maintenance.
- Energy costs: this is related to energy flows in model, accounting for fuel and electricity costs.
- Carbon pricing: Calculated by emissions generation.

Expenditure types that are evaluated in the model are summarized in Table 3. Financial assumptions will be included in further iterations of the Halton Hills model.

Table 7. Categories of expenditures.

Category	Description
Residential buildings	Cost of dwelling construction and retrofitting; operating and maintenance costs (non-fuel).
Residential equipment	Cost of appliances and lighting, heating and cooling equipment.
Residential fuel	Energy costs for dwellings and residential transportation.
Residential emissions	Costs resulting from a carbon price on GHG emissions from dwellings and transportation.
Commercial buildings	Cost of building construction and retrofitting; operating and maintenance costs (non-fuel).
Commercial equipment	Cost of lighting, heating and cooling equipment.
Commercial vehicles	Cost of vehicle purchase; operating and maintenance costs (non-fuel).
Non-residential fuel	Energy costs for commercial buildings, industry and transport.
Non-residential emissions	Costs resulting from a carbon price on GHG emissions from commercial buildings, production and transportation.
Energy production emissions	Costs resulting from a carbon price on GHG emissions for fuel used in the generation of electricity and heating.
Energy production fuel	Cost of purchasing fuel for generating local electricity, heating or cooling.

Energy production equipment	Cost of the equipment for generating local electricity, heating or cooling.
Municipal capital	Cost of the transit system additions (no other forms of municipal capital assessed).
Municipal fuel	Cost of fuel associated with the transit system.
Municipal emissions	Costs resulting from a carbon price on GHG emissions from the transit system.
Energy production revenue	Revenue derived from the sale of locally generated electricity or heat.
Personal use vehicles	Cost of vehicle purchase; operating and maintenance costs (non-fuel).
Transit fleet	Costs of transit vehicle purchase.
Active transportation infrastructure.	Costs of bike lane and sidewalk construction.

Financial Reporting Principles

The financial analysis is guided by the following reporting principles:

1. Sign convention: Costs are negative, revenue and savings are positive.
2. The financial viability of investments will be measured by their net present value.
3. All cash flows are assumed to occur on the last day of the year and for purposes of estimating their present value in Year 1 will be discounted back to time zero (the beginning of Year 1). This means that even the initial capital outlay in Year 1 will be discounted by a full year for purposes of present value calculations.
4. We will use a discount rate of 3% in evaluating the present value of future government costs and revenues.
5. Each category of stocks will have a different investment horizon.
6. Any price increases included in our analysis for fuel, electricity, carbon, or capital costs will be real price increases, net of inflation.
7. Where a case can be made that a measure will continue to deliver savings after its economic life (e.g. after 25 years in the case of the longest lived measures), we will capitalize the revenue forecast for the post-horizon years and add that amount to the final year of the investment horizon cash flow.
8. In presenting results of the financial analysis, results will be rounded to the nearest thousand dollars, unless additional precision is meaningful.
9. Only actual cash flows will be included in the financial analysis.

Inputs and Outputs

The model relies on a suite of assumptions that define the various stocks and flows within the model for every time-step (year) in the model.

Base Year

For the baseline year, many model inputs come from calibrating the model with real energy datasets. This includes real building and transportation fuel data, city data on population, housing stock and vehicle stock etc. Other assumptions come from underlying relationships between energy stocks and flows identified through research, like the fuel efficiency of personal vehicles, and the efficiency of solar PV.

Future Projections

Scena is designed to project how the energy flow picture and emissions profile will change in the long term by modeling potential change in:

- the context (e.g. population, development patterns), and
- emissions reduction actions (that influence energy demand and the composition of stocks).

Potential changes in the system are also based on a suite of input assumptions, and are frequently referred to as "actions". Actions are an intervention point in the model that changes the relationship between a certain stock and flow at a certain time. Action assumptions can be based on existing projections and on proposed policy design, and can be as wide-ranging as the stocks and flows present in the model.

Stock-turnover models enable users to directly address questions about the penetration rates of new technologies over time constrained by assumptions such as new stock, market shares and stock retirements. Examples of outputs of the projections include energy mix, mode split, vehicle miles travelled (VMT), total energy costs, household energy costs, GHG emissions and others. Energy, emissions, capital and operating costs are outputs for each scenario. The emission and financial impacts of alternative climate mitigation scenarios are usually presented relative to a reference or "business-as-planned" scenario.

For example, an action may assume: "Starting in 2030, all new personal vehicles are electric." This assumption would be input into the model, where, starting in 2030, every time a vehicle is at the end of its life, rather than be replaced with an internal combustion engine vehicle, it is replaced with an electric vehicle. As a result, the increase in the electric vehicle stock means greater VMT allocated to electricity and less to gasoline, thereby resulting in lower emissions.

Spatial Disaggregation

As noted above, a key feature of Scena is the geocoded stocks and flows that underlie the energy and emissions in the community. All buildings and transportation activities are tracked within a discrete number of geographic zones, specific to the city. This enables consideration of

the impact of land-use patterns and urban form on energy use and emissions produced from a baseline year to future points in the study horizon. Scena outputs can be integrated with city mapping and GIS systems. This is the feature that allows Scena to support the assessment of a variety of urban climate mitigation strategies that are out of reach of more aggregate representations of the energy system. Some examples include district energy, microgrids, combined heat and power, distributed energy, personal mobility (the number, length and mode choice of trips), local supply chains, and EV infrastructure.

For stationary energy use, the foundation for spatial representation consists of land use, zoning and property assessment databases routinely maintained by municipal governments. These databases have been geocoded in recent years and contain detailed information about the built environment that is useful for energy analysis.

For transportation energy use and emissions, urban transportation survey data characterizes personal mobility by origin, destination, trip time, and trip purpose. This in turn supports the spatial mapping of personal transportation energy use and greenhouse gas emissions by origin or destination.

Modeling Process

Scena is designed to support the process of developing a municipal strategy for greenhouse gas mitigation. The model is used to identify a pathway for a community to meet a greenhouse gas emissions target by a certain year, or to stay within a cumulative carbon budget over a specified period.

Data Collection, Calibration, and Baseline

A typical Scena engagement begins with an intensive data collection and calibration exercise in which the model is systematically populated with data on a wide range of stocks and flows in the community that affect greenhouse gas emissions. A picture emerges from this data that begins to identify where opportunities for climate change mitigation are likely to be found in the community being modeled. The calibration and inventory exercise helps establish a common understanding among community stakeholders about how the greenhouse gas emissions in their community are connected to the way they live, work, and play. Relevant data are collected for variables that drive energy and emissions—such as characteristics of buildings and transportation technologies—and those datasets are reconciled with observed data from utilities and other databases. The surface area of buildings is modeled in order to most accurately estimate energy performance by end-use. Each building is tracked by vintage, structure, and location, and a similar process is used for transportation stocks. Additional analysis at this stage includes local energy generation, district energy, and the provincial electricity grid. The primary outcome of this process is an energy and GHG inventory for the baseline year, with corresponding visualizations.

The Base Year and Reference Projection

Once the baseline is completed, a reference projection to the target year or the horizon year of the scenario exercise is developed. The reference projection is based on a suite of input assumptions into the model that reflect future conditions. This is often based on: existing municipal projections, for buildings and population; historical trends in stocks that can be determined during model calibration. In particular, future population and employment and allocating the population and employment to building types and space. In the process the model is calibrated against historical data, providing a technology stock as well as a historical trend for the model variables. This process ensures that the demographics are consistent, that the stocks of buildings and their energy consumption are consistent with observed data from natural gas and electricity utilities, and that the spatial/zonal system is consistent with the municipality's GIS and transportation modeling.

The projection typically includes approved developments and official plans in combination with a simulation of committed energy infrastructure to be built, existing regulations and standards (for example renewable energy and fuel efficiency), and communicated policies. The projection incorporates conventional assumptions about the future development of the electrical grid, uptake of electric vehicles, building code revisions, changes in climatic conditions, and other factors. The resulting projection serves as a reference line against which the impact and costs of

GHG mitigation measures can be measured. Sensitivity analysis and data visualizations are used to identify the key factors and points of leverage within the reference projection.

Low-Carbon Scenario and Action Plan

The low-carbon scenario uses a new set of input assumptions to explore the impacts of emissions reduction actions on the emissions profile. Often this begins with developing a list of candidate measures for climate mitigation in the community, supplemented by additional measures and strategies that are identified through stakeholder engagement. For many actions, Scena draws on an in-house database that specifies the performance and cost of technologies and measures for greenhouse gas abatement. The low-carbon scenario is analyzed relative to the reference projection. The actions in the low-carbon scenario are analyzed together to ensure that there is no double-counting and that the interactive effects of the proposed measures are captured in the analysis.

Addressing Uncertainty

There is extensive discussion of the uncertainty in models and modeling results. The assumptions underlying a model can be from other locations or large data sets and do not reflect local conditions or behaviours, and even if they did accurately reflect local conditions, it is exceptionally difficult to predict how those conditions and behaviours will respond to broader societal changes and what those broader societal changes will be (the “unknown unknowns”).

The modeling approach identifies four strategies for managing uncertainty applicable to community energy and emissions modeling:

1. Sensitivity analysis: From a methodological perspective, one of the most basic ways of studying complex models is sensitivity analysis, quantifying uncertainty in a model’s output. To perform this assessment, each of the model’s input parameters is described as being drawn from a statistical distribution in order to capture the uncertainty in the parameter’s true value (Keirstead, Jennings, & Sivakumar, 2012).
    a. Approach: Each of the variables will be increased by 10-20% to illustrate the impact that an error of that magnitude has on the overall total.
2. Calibration: One way to challenge the untested assumptions is the use of ‘back-casting’ to ensure the model can ‘forecast’ the past accurately. The model can then be calibrated to generate historical outcomes, which usually refers to "parameter adjustments" that "force" the model to better replicate observed data.
    a. Approach: Variables for which there are two independent sources of data are calibrated in the model. For example, the model calibrates building energy use (derived from buildings data) against actual electricity data from the electricity distributor.
3. Scenario analysis: Scenarios are used to demonstrate that a range of future outcomes are possible given the current conditions which imply that no one scenario is more likely than another.
    a. Approach: The model will develop a reference scenario.
4. Transparency: The provision of detailed sources for all assumptions is critical to enabling policy-makers to understand the uncertainty intrinsic in a model.
    a. Approach: The assumptions and inputs are presented in this document.

Appendix 1: Data Sources & Uses

Table 1-1. Input assumptions and calibration targets.

Data	Source	Use
Population by age, sex	United States Census Bureau	Calibration target
Population by zone	City of Vancouver, Washington	Calibration target
Residential buildings by parcel, type, and year built	City of Vancouver, Washington	Input assumption
Employment by zone	City of Vancouver, Washington	Calibration target
Non-residential buildings by parcel, type and year built	City of Vancouver, Washington	Input assumption
Natural gas consumption by sector	NW Natural	Calibration target
Electricity consumption by sector	Clark PUD	Calibration target
End use equipment fuel shares	National Renewable Energy Laboratory (NREL) ResStock and ComStock Analysis Tools	Input assumption
Heating and cooling degree days	The Climate Explorer	Input assumption

CITY OF Vancouver WASHINGTON

Green Building Strategy

Implementation Recommendations

Prepared by SSG, Dave Walsh Consulting, and Farallon Consultants Limited

September 2024

Draft V1

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Disclaimer

Reasonable skill, care and diligence has been exercised to assess the information acquired during the preparation of the Implementation Recommendations, but no guarantees or warranties are made regarding the accuracy or completeness of this information. This document, the information it contains, the information and basis on which it relies, and the associated factors are subject to changes that are beyond the control of the author. The information provided by others is believed to be accurate but has not been verified.

The analysis has been prepared as an internal document for the City of Vancouver to outline potential implementation processes to assist the City in implementing the Green Building Strategy (GBS). The analysis has been developed based on information gathered through best practices research, technical analysis, and feedback received throughout the engagement period.

The authors do not accept responsibility for the use of this analysis for any purpose other than that stated above, and do not accept responsibility to any third party for the use, in whole or in part, of the contents of this document. This analysis applies to the City of Vancouver and cannot be applied to other jurisdictions without further analysis. Any use by the City of Vancouver, its sub-consultants or any third party, or any reliance on or decisions based on this document, are the responsibility of the user or third party.

GBS Review Cycle and Phasing

Program Phasing

The following recommended phased approach is designed to build internal capacity and industry capacity while allowing opportunities to respond to changing legislative and regulatory frameworks, technology advancements, and building codes (Table 1).

Table 1. Vancouver's Green Building Strategy (GBS) recommended program phasing.

Green Building Strategy	Key Elements	Timeframe
Internal Review Period: Incentives and tools development		
GBS pilot phase adoption and launch		
GBS: Pilot Phase	The pilot phase of Vancouver's GBS will require applicants to submit a completed permit application, GBS checklist, and supporting documentation. The pilot phase is intended to support the development industry and build internal capacity for implementation. During this phase, applicants will be required to begin the analysis reports, however the targets will not be enforced. Internal departments will be responsible for tracking their time spent on reviewing applications to inform future staffing and resourcing requirements.	
Internal Review Period: Pilot Phase		Initiate by Qx 2025
GDS V.1	The first phase of the program will enforce all requirements as a condition for permit issuance.	January 1, 2027 - December 31, 2029
Internal Review Period: Cycle 2		Initiate by Q4 2028
GDS V.2: Tier 3 Mandatory	Following a program review beginning in Q4 2028, the GDS will be updated to reflect additional changes in technology, legislative framework, and Building Codes. Tier 2 and high-performance	January 1, 2030

	metrics were approved in principle during GDS V.1, however the program update will be subject to Council approval.	

Review Cycle Process

The City should review the overall GBS implementation before each phasing step-up. The next step-up or update is planned for 2028, therefore, a 2027 review would support the updated standard to come into effect in 2028, and a 2029 review would support the updated standard to come into effect in 2030.

Additional Considerations

Alignment with the City's Comprehensive Plan Update

The City is currently updating the Comprehensive Plan which will guide Vancouver's growth and development over the next 20 years. Future GBS updates should incorporate elements from the Comprehensive Plan where appropriate.

Alignment with Washington State Codes

The Washington State Buildings Codes, which set the minimum construction requirement for the State of Washington, are updated in 3-year cycles. The 2021 editions went into effect on March 15, 2024. The review process for the next edition is already underway. The City of Vancouver could take this opportunity to advocate for state-wide adoption of more ambitious code requirements, especially for all-electric ready buildings and resiliency features. As a local jurisdiction, the City is subject to state-wide codes and will need to align any local amendments to its jurisdictional authority.

Alignment with Other Municipalities and Jurisdictions

During consultation, the development and construction industry representatives recommended the City align with other municipalities and jurisdictions. To ensure continued alignment, it is recommended that the City complete a jurisdictional review during each review cycle.

Application Process

The GBS is integrated into the City's existing commercial and residential permitting processes. These permitting processes are administered by the City's Community Development Department. The GBS submissions materials and supporting documentation will be submitted using the ePlans portal and form part of a complete application.

Table 2 outlines the Residential and Commercial Application Procedure and GBS submission requirements during each phase of the application.

Table 2. GBS submission during the permit application procedure.

Application Step	Purpose	Outcome
Pre-Application Conference Request	Applicants submit Pre-Application, Pre-App Waiver application form via e-Plans portal.[1]	Detailed pre-screen review of application is completed. Pre-application meeting scheduled (PAM 1).
Pre-Application Meeting (PAM) 1	Identify the GBS checklist as a submission requirement. Applicants are advised of the GBS requirements relevant to their permit application.	Submission requirements for complete application identified.
Revisions (External)	Applicant revises application based on feedback and submission requirements identified through PAM 1. Applicant prepares GBS Checklist and plans/drawings, commitment letters and component studies to verify compliance with GBS.	Updated application, GBS checklist, and supporting documentation are uploaded to e-Plans prior to PAM 2. Pre-application meeting scheduled (PAM 2).
PAM 2	Applicants advise City staff on changes to application, submitted material, and exemptions. City staff provide feedback on the submitted plans/drawings and component studies to verify compliance with GBS.	Report on application compliance and any outstanding documents or unmet targets provided by the City to the applicant. Next steps are determined based on applicant's

[1] The City has a Pre-application, Pre-App Waiver Application form for land-use applications that can be adapted for permitting processes.

		compliance and supporting documentation.
Pre-submission Work and Application Submission	Applicant uploads complete Residential or Commercial Permit application including GBS checklist and supporting documents via ePlans.	Completed application is circulated for internal review.
Circulation/ Technical Review (Internal)	City staff review submitted plans/drawings and component studies to verify compliance with GBS.	Report on application compliance and any outstanding documents or unmet targets provided by the City to the applicant.
Plan Revision and Permit Issuance	Applicants will receive notification of revisions that are required. Applicants will make revisions and respond to reviewer comments.	Provide applicants with revision requirements. .
Detailed Design/Site Construction	Once the revisions are completed and applicants have demonstrated compliance and clearance of conditions, the reviewer will sign-off on the project and the permit will be in pre-issue status.	Issue permits in accordance with GBS compliance.

Roles and Responsibilities

Table 3 summarizes the recommended roles and responsibilities for Vancouver's permit application review process. In addition, based on interviews with other municipalities, it is recommended that Vancouver:

1. Update forms and checklists to integrate GBS requirements;
2. Build internal capacity for managing the GBS;
3. Investigate tools and opportunities to automate processes; and
4. Use external consultants to verify compliance with more complex requirements.

Table 3. Summary of departments and roles and responsibilities for development application review.

Department	Responsibility/Role
Council	• Endorse GBS • Approve Comprehensive Plan and Vancouver Municipal Code Title updates to include purpose and implementation of GBS • Approve or deny permit applications, where GBS and sustainability objectives may be a factor in this decision
Community Development	• Seek council endorsement on GBS • Develop and update GBS • Explore partnerships with other municipalities and means of funding • Engage internal and external stakeholders for feedback • Develop and update guidance documents and tools (application forms and checklist) for applicants • Track and monitor uptake of GBS • Report to Council – Information Report and Recommendation Report
Community Development - Permit Center	• Oversee the integration of the GBS into the permit approval processes • Circulate GBS documents to internal technical reviewers • Inform Applicant of submission and approval status
Technical Reviewers	• Verify GBS requirements are satisfied. • Report back to Community Development. • Confirm compliance (site visits, assumption, etc.) prior to approval
Third-Party Verification and Compliance	• When required, external consulting teams review submission requirements to verify compliance
External Agencies	• When required, external agencies review submission requirements • Report back to Permit Center

Annex III

What We Heard: Engagement Report

City of Vancouver

New Green Building Strategy

September 2024

Prepared by SSG

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1. Introduction

In December 2022, the City of Vancouver adopted one of the most ambitious climate action goals in the country. Through the City's Climate Action Framework (CAF), City Council committed to reducing community and corporate greenhouse gas emissions by 80% by 2030 and achieving carbon neutrality by 2040. As part of its efforts to reach these goals, the City is developing a Green Building Strategy (GBS) to ensure new buildings and existing municipal buildings are efficient and climate resilient.

As a part of the policy development process, the City worked with its consultant, SSG, to engage interested and affected parties about opportunities for and barriers to green buildings, preferences for the GBS, and the viability of potential approaches for the local context. **This document summarizes engagement participants' feedback on the GBS for new buildings and provides recommendations based on their input.**

1.1 The Engagement Process

Working with SSG, the City developed an Engagement Strategy targeting the following interested and affected parties:

- **The City of Vancouver**, including the Economic Prosperity and Housing Department, the Community Development Department, the City Manager's Office, the General Services Department (particularly staff involved with managing city facilities);
- **Relevant Boards, Commissions, and advisory bodies**, including the Building and Fire Code Commission, the Planning Commission, and the City Center Redevelopment Authority;
- **The construction sector**, including industry associations, contractors, architects, civil and mechanical engineers, tradespeople, developers, building sustainability consultants, and affordable housing developers;
- **Economic organizations** (organizations that support local businesses and economic development);
- **Environmental experts and organizations**, including experts with knowledge of the environmental impacts of building policy and local environmental advocacy groups;

- **The real estate sector**, including brokerage houses, property manager, building management companies, realtors, and commercial real estate companies;
- **Organizations with large building portfolios**, such as companies and public organizations;
- **The energy sector**, including utilities, energy service companies, and renewable energy companies; and
- **The community**, including community groups and non-profit organizations concerned with issues related to equity and housing affordability.

The engagement techniques used to engage these groups to gather feedback on the GBS approach for new buildings, as well as information about participants, is detailed in Table 1.[1]

[1] SSG also ran online workshops and meetings with the City to capture feedback on the GBS approach for existing municipal buildings. This feedback is not captured in this document or the table below.

Table 1. Summary of engagement activities for the GBS.

Activity	Description	Participants
Technical Advisory Group	The City convened a Technical Advisory Group (TAG) to support the development of the Green Building Strategy. SSG facilitated four two-hour online meetings for the TAG between April and August 2024 and had opportunities to provide feedback online between sessions.	18 members, including representatives of local developers, environmental advocacy groups, industry associations, labor groups, technical experts, utilities, and city staff.
Public Workshop	The City hosted a two-hour hybrid public workshop (online and in-person at City Hall) on June 5, 2024, to share information about the GBS and gather input on public priorities for green buildings, potential partners, and equity considerations.	20+ participants.
Green Building Strategy Roundtables	SSG facilitated two two-hour online roundtables tables targeted at developers, contractors, and green building specialists in June and July 2024. One roundtable focused on non-residential buildings while the other focused on residential buildings. The roundtables focused on gathering input related to the cost implications of the Green Building Strategy (GBS), compelling incentives, and implementation considerations.	9 participants representing various developers and contractors. Potential participants and organizations were invited directly by the City. The opportunity was also advertised on the City website and a newsletter.
Equity Workshop	SSG facilitated a two-hour online equity workshop on June 14, 2024. The workshop targeted affordable housing providers and advocates to identify potential equity challenges that could be created by the GBS, as well as solutions.	7 participants, including representatives of local affordable housing providers, developers, and advocacy organizations; a real estate and mortgage firm; and a concerned community member.
Developer and Contractor Survey	A 10-20 minute online survey for developers and contractors that ran from the end of July to mid-August 2024. The survey gathered feedback on detailed elements of the draft policy and potential incentives.	41 participants from the construction and development sector.

1.2 Feedback

Participants' feedback was analyzed throughout the policy development process and integrated into several drafts. The rest of this document summarizes their input, along with recommendations based on it, divided into these sections:

- Policy Structures and Approaches
- Equity Considerations
- Theme 1: Energy and Performance
- Theme 2: Climate and Environmental Impacts
- Theme 3: Climate Resilience
- Theme 4: Ecological and Natural Systems

2. Policy Structures and Approaches

This section captures feedback and recommendations related to the GBS structure and updates.

2.1. Policy Structure

Recommendations

- Implement a points-based or hybrid incentive structure that offers developers flexibility to choose GBS measures for specific projects.
- Align GBS updates with the building code cycle.
- Encourage adoption of emerging technologies that advance GBS goals and targets by granting points for new technology pilots on a case-by-case basis.
- Include options to meet GBS requirements via third-party certifications.

Feedback on Policy Structure

Engagement participants had an opportunity to provide input on policy structure via the TAG, GBS Roundtables, Equity Workshop, and Developer and Contractor Survey. Key themes included incentive structures, flexibility, the timing of code updates, inclusion of third-party certifications, and supporting emerging technologies.

Incentive Structures

The project team considered direct-match and points-based incentive structures for the GBS. In a direct match incentive structure, incentives are directly matched to the adoption of specific approaches. In a points-based system, points are awarded for compliance in different approaches and builders get access to various incentives based on the total number and type of points they receive.

Most TAG members recommended a points-based approach. They highlighted the following advantages:

- A points-based approach would have similar language to the commercial energy code.
- Affordable housing developers use a points-based approach to meet the State's Evergreen Sustainable Development Standard and would find it easy to use one for the GBS if a matrix was created to highlight where requirements overlap.
- It allows builders flexibility and enables innovation by giving them the chance to mix and match approaches based on the building.

At the same time, some TAG members said a hybrid approach could be helpful. For example, one TAG member suggested offering points for lower-priority items while linking what really needs to be done to specific incentives. TAG members also advised the City to be careful not to award points for measures that barely reduce energy use.

Flexibility

Engagement participants encouraged the City to take a flexible approach to the GBS to make it easier for developers to apply green building measures in the context of diverse sites. One way to enable such flexibility is through a points-based incentive structure in which developers can pick and choose measures to obtain points (discussed above). Participants also suggested the City could be flexible on other building standards to accommodate green building requirements. Some participants expressed that developers would be more amenable to an incentive-based approach.

Additionally, some participants advised the City to consider how requirements could vary by building type and location. For example, a roundtable participant said bike parking is needed in some areas more than others, so a blanket requirement would not make sense.

At the same time, many participants expressed that incentives alone may not be enough to encourage implementation. Some participants recommended that certain elements of the GBS, such as bird-safe design, be required because voluntary adoption would be low.

Code Updates

TAG members highlighted the following considerations for the City to consider when determining its timeline for revisions:

- Developers need some level of predictability. For affordable housing developers, funding cycles are short, but projects take years; frequent code changes might force them to redesign projects.
- To encourage adoption of emerging technologies, the City could consider allowing points for new technology on a pilot basis or pilot projects that integrate new technology on a rolling basis.
- Developers would find it helpful if GBS updates were aligned with the building code cycle.

At the same time, TAG members said the code update cycle should not delay adoption of emerging technology. They recommended the City consider allowing points for new technology on a pilot basis, as well as pilot projects that integrate new technology. They also suggested the City create a list of permissible technologies and update it regularly.

Third-Party Certification

Some developers and contractors who participated in engagement said they would like an option to meet green building requirements through third-party certifications. They expressed interest in a variety of options. Some participants recommended carefully selecting the level of certification that aligned with GBS requirements to avoid granting incentives for buildings that fall short of the policy's goals.

2.2. Incentives and Supporting Initiatives

Recommendations

- Offer the most-desired incentives—impact fee waivers, permit fee waivers, tax exemptions, and system development fee deferrals—for implementing approaches

that are challenging to implement and significantly contribute to greenhouse gas reduction and other GBS goals.

- Offer upzoning incentives for multifamily buildings that meet GBS standards in order to encourage more housing development and reduce the additional cost per unit for incorporating GBS measures. Offer the most aggressive upzoning incentives to affordable housing developers and/or buildings with affordable units.
- Offer reduced parking requirements for multifamily buildings in exchange for exceeding the number of Level-2 EV charging, EV-ready, and/or EV-capable parking spaces required by state regulations.
- Facilitate financial support to enable developers to implement the GBS.
    - Identify available grants and low-interest, third-party financing for sustainable building features.
    - Provide developers with information about available financing opportunities.
    - Explore avenues for the City to provide or facilitate financing, such as by distributing federal or state funding, via partnership with financial institutions, or technical support for applying to existing grants.
- Collaborate with industry to develop an initiative to recognize green buildings in Vancouver and share best practices.
- Offer technical assistance and resources to support developers with implementing the GBS paying special attention to the needs of nonprofit developers who build affordable housing and small developers with limited resources.

Feedback on Incentives and Supporting Initiatives

Members of the development and construction sector and others with expertise in green buildings shared their perspective on potential incentives for the GBS and their efficacy in various fora, including the TAG, the Green Building Strategy Roundtables, the Developer and Contractor Survey, and the Equity Workshop. Public workshop participants also provided feedback on incentives and supports for the policy.

Financial Incentives

Financial incentives include tax exemptions, fee waivers, and financial assistance. Participants indicated that, out of all the incentives discussed (financial and non-financial), the most compelling incentives are those that offer financial breaks, including permit fee waivers, impact fee waivers, tax exemptions, and system development fee deferrals. Permit fee waivers and impact fee waivers were the most popular of the group.

Additionally, several participants said financial assistance, such as grants and low-interest, third-party financing for sustainable building features, would be helpful for encouraging GBS implementation.

Other financial incentives participants suggested include:

- No-cost permitting for including solar PV in new construction;
- No-interest loans for including solar PV in new construction;
- Reduced or eliminated fees for partitions required for mixed-use developments; and
- A carbon credit system to offset the cost of low-carbon materials through tax exemptions or reduced permit fees.

Process Incentives

Process incentives include measures to streamline or speed up permitting, such as front-of-queue incentives, streamlined submission requirements, and faster processing.

Expediting permitting was widely recommended (almost as much as financial incentives) across the engagement activities, though interested and affected parties had differing perspectives on its efficacy. Some felt that Vancouver's review time frame is already sufficiently quick and streamlined, but others indicated it could make a difference to their bottom line.

Participants also suggested by-right permitting and streamlined permitting for renewable energy projects.

Land-Use Incentives

Land-use incentives, particularly upzoning and reduced parking requirements, are most compelling for multifamily buildings.[2] Interested and affected parties noted that such incentives could help address affordability concerns related to the GBS (decreased cost per unit if developers can provide more housing within the same building). Equity workshop participants also recommended allowing green buildings with affordable units to have increased lot coverage or additional stories. Additionally, Residential roundtable participants said reduced parking requirements could encourage density on smaller infill parcels, while land-use incentives could be helpful for encouraging cool paving.

[2] Participants provided mixed feedback on land-use incentives. While reduced parking and height bonus' ranked low among developers and contractors who completed the survey (largely developers of detached homes and multiple attached single-family homes), participants of other engagement activities (Equity Workshop, TAG, Residential Green Building Strategy Roundtable) recommended them and emphasized their relevance for multifamily housing.

Marketing and Performance Incentives

Marketing and performance incentives include promotional campaigns, showcase events, awards, and recognition. Interested and affected parties said marketing and performance incentives would have some impact, but are unlikely to be as effective as the other incentives measures above. Their recommendations for the City include:

- Create initiatives to give prestige and distinction to green buildings,
- Consider shaming buildings that don't meet standards,
- Work with industry associations and boards to promote GBS and co-sponsor programs and events;
- Increase awareness of innovative green buildings in the region, such as the PAE Living Building in Portland; and
- Use the EPA EnergyStart Portfolio Manager to benchmark buildings.

One participant recommended having fun events with food and drinks.

Technical Assistance

Technical assistance, including guidelines, workshops, and dedicated staff to educate and assist applicants, can also promote adherence to green building policies. Participants made suggestions related to technical assistance throughout the engagement process. Many of their ideas are captured in the relevant thematic sections of this report.

Equity Workshop participants were particularly concerned about the technical expertise required to interpret and apply the GBS. Non-profit developers said that it can be challenging for them to understand existing standards like the Washington State Evergreen Standards, which are required for affordable housing projects. Small developers also said that fitting standards into projects can be a technical challenge.

Participants made several recommendations around technical assistance that are captured in the relevant thematic sections of the report. In terms of general technical assistance, they recommended the City create avenues to learn about best practices in use locally. Additionally participants said it would be important for the City to promote and share

information about existing initiatives and organizations that can assist with GBS measures (e.g., Clark Public Utilities' subsidies for renewable energy installations).[3]

Other Incentives

Engagement participants offered creative suggestions for other incentives. These include:

- Add the weight of the structure into the permitting process to incentivize lighter buildings (to reduce embodied carbon);
- Free solar panel installations; and
- An Early Adopter Program to encourage developers to get started with implementing the GBS.

2.3. Cost Considerations

Recommendations

- Educate developers and the public about the cost implications of GBS measures to counter the inaccuracies related to the impact of green buildings on costs.
- Facilitate financial support for developers to implement the GBS, per the recommendation in the section on Incentives above.
- Consider creating bulk buying programs to help developers access lower-cost materials for implementing the GBS.

Feedback on Cost Considerations

The cost of the GBS was a constant theme throughout the development of the policy and the engagement process. Engagement participants had concerns about the cost of a variety of elements of the Green Building Strategy, including measures released to energy efficiency, building envelopes, embodied carbon, heat pumps, sustainable roofs, mass timber, bird-friendly glass, and cool paving. Where relevant, cost challenges related to specific elements are captured in the thematic sections below.

Perceptions of Cost

To get a better understanding of the cost implications of the GBS, the consulting team shared estimates of capital cost effects for draft GBS approaches with the TAG and GBS

[3] The detailed engagement reports for the TAG and the Public Workshop provide lists of potential partners and existing initiatives identified by participants.

Roundtables and asked participants how representative they were. These estimates were based on data from other North American jurisdictions. SSG used this input to refine an analysis of the financial implications of the GBS, which is covered in a separate report.

One thing that became clear during this process is that some things may cost less than developers anticipate, while others may cost more than what data from other jurisdictions indicate. For example, some participants were surprised by data showing certain elements of green building policies in other jurisdictions cost less than they anticipated. On the other hand, participants expected some elements would cost more than in the estimates because of the time required to learn about and integrate them into the construction process or to find contractors with the appropriate skills.

Participants said the following green building measures that would not result in significant costs or burdens on developers:

- energy-wise appliances,
- energy efficiency lighting,
- programmable thermostats,
- low-flow water fixtures, and
- landscaping with drought-resistant plants that require no water or low-drip irrigation (xeriscaping).

Solutions for Reducing Cost

Engagement participants discussed how the GBS might be structured to mitigate their concerns about costs. Some suggested offering strong upzoning incentives for GBS measures to motivate developers to pursue green measures while building more housing. This would reduce the cost impact of green measures (lower cost per dwelling) while boosting housing supply.

A few engagement participants suggested the City develop or facilitate a bulk purchasing program to lower the cost of materials required for green buildings, such as materials low in embodied carbon and EV chargers.

Equity workshop participants also recommended selecting elements of the GBS to prioritize rather than requiring wholesale implementation or offering flexibility on which measures must be implemented. Additionally, equity workshop participants said it is important to find alternate ways of building that reduce costs while addressing environmental concerns. They highlighted innovative technologies like 3-D printed homes and Earthships, which are passive houses built from recycled materials.

Equity workshop participants also recommended the City explore zoning changes to promote more sustainable buildings that are also affordable. For example, one participant suggested changing zoning to support three-story walk ups with wood frames because they are more “most efficient” and “most cost effective.”

2.4 Sustainability in Large Developments

Recommendations

- Refer to Theme 3 and Theme 4 recommendations.

Feedback on Sustainability in Large Developments

The engagement activities gathered feedback on how the GBS could promote sustainable large-scale developments. The CAF suggested promoting LEED for Neighbourhood Gold Standard or a comparable certification for projects over 50 acres. However, TAG participants provided feedback that this would be onerous and costly, and that another system might work better. They also noted that the buildings in the development would be subject to the GBS.

Some TAG members advised the City to consider district cooling and heating systems for larger developments and explore the possibility of developing these through a public-private partnership (see Theme 3 below for more information). Engagement participants also provided input into approaches to ecosystem conservation for large developments (see Theme 4 below for more information).

3. Equity Considerations

3.1. Recommendations

- Align the GBS with affordable housing programs such that new developments receive greater upzoning, other incentives, or support for housing that is green and affordable.
- Implement the recommendations in the City's anti-displacement plan, Reside Vancouver, alongside the GBS to mitigate the potential negative impacts of the GBS on affordability.[4]
- Develop initiatives to green existing buildings and areas, especially low-income ones, so that the benefits of green buildings are equitably distributed.
- Identify ways to support the development of green housing co-operatives and affordable housing. Consider an approach like Seattle's I-35 Initiative.
- Advocate for more funding for green, affordable housing from the state and federal governments.

3.2. Feedback on Equity Considerations

Equity is a key priority of the Climate Action Framework, which provides the mandate for the GBS.[5] Additionally, the City has prioritized improving housing affordability with a push to ramp up the housing development, including affordable units.

Within this context, the engagement process included activities to gather feedback on interested and affected parties on the potential impacts of the policy on equity considerations. An Equity Workshop, which brought together affordable housing developers, providers, and advocates, focused on the topic, while two seats on the TAG were filled by representatives of affordable housing. Additionally, questions related to equity were posed during other engagement activities.

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[4] The City of Vancouver has already carried out deep analysis and engagement to develop Reside Vancouver: An Anti-Displacement Plan. The Plan includes extensive recommendations related to improving housing affordability and preventing gentrification that consider these issues within the social, economic, and spatial context of the City and can be implemented alongside the GBS to improve housing affordability.

[5] The CAF articulates the following vision: "Vancouver will be a city that embeds equity in climate action, with regular assessments of community vulnerability, a comprehensive anti-displacement policy, and climate strategies and actions that prioritize an equitable distribution of costs and benefits. Through a just transition, Vancouver will be a city that educates and trains its workers for careers in clean technology, renewable energy, and electric vehicles."

Cost and Affordability

Affordability was a constant theme throughout the development of the GBS. Unsurprisingly, the issue came up in every single engagement activity. Interested and affected parties expressed concerns about the impact the GBS might have on housing costs and supply given the tight housing market and rising rents.

Equity Workshop participants said that more subsidies are needed to build affordable housing for low- and middle-income households. They also noted that there are not enough low-income housing programs for people who make less than 80% of the median family income (MFI), let alone those struggling to afford housing in other income brackets.

Engagement participants' main concern related to affordability is that the GBS could increase construction costs, resulting in increased mortgage and rental rates that could lead to further gentrification in parts of the city. Additionally, equity workshop participants said increased construction costs could affect the work of affordable housing developers and related organizations. For example, a participant said that the Clark County Affordable Home Ownership Program—a partnership between the Vancouver Housing Authority and local non-profit organizations—is looking to provide financial assistance to families buying developer-built homes; however, the program may not be feasible if construction costs increase significantly.

Some engagement participants at the Equity Workshop and Public Workshop expressed they would like to see the GBS address affordability more directly.

Gentrification

Participants expressed concerns that the GBS could lead to gentrification as a result of higher costs. Additionally, an equity workshop participant noted that gentrification could also be a result of neighborhoods with green buildings becoming more desirable because of their green features.

Another equity workshop participant suggested that the green building code must be evenly distributed to ensure equity and minimize gentrification related to the desirability of green features. For example, underwritten solar panels or water heaters could help improve access to those technologies. Another participant said more attention should be focused on greening existing buildings than on new ones since that is where people with lower incomes are more likely to live. A public workshop participant noted that greening low-income housing could help reduce utility costs.

Others suggested efforts focused on green affordable housing. For example, a public workshop participant suggested building resident-owner cooperative housing that adheres to the GBS. Additionally, an equity workshop participant highlighted the recent Seattle Initiative 135 (I-135), which created a new social housing developer to build, acquire, and manage affordable housing in the city.

Funding

Interested and affected parties emphasized the lack of funding for affordable housing at the Equity Workshop. Affordable housing developers said the only reason they can build to the Evergreen State Standards is due to the availability of funding for affordable housing.

4. Theme 1: Energy and Performance

A key element of the GBS is improving energy efficiency to decrease greenhouse gas emissions associated with operating new buildings. This is driven by the Climate Action Framework's goal of reducing Vancouver's community greenhouse gas emission to net-zero by 2040. To achieve this goal, new buildings must exceed state requirements. Theme 1 is focused on energy and performance with a goal of developing highly energy-efficient zero-emission buildings.

4.1. Energy and Performance in Large Buildings

Recommendations

- Require new non-residential and medium- to high-rise multifamily buildings to meet energy efficiency requirements aligned with the Climate Action Framework Goal of net-zero emission by 2040 (i.e., exceed state code).
- Offer performance-based targets, third-party certification, and prescriptive pathways for meeting energy efficiency requirements.
- Provide support, such as a dedicated staff member, to help developers navigate the technical components of the new pathways with a focus on meeting the needs of smaller developers and those developing affordable housing.
- Work with Clark Public Utilities to ensure the electrical grid has capacity to accommodate the electrification measures in the GBS.

Feedback on Energy and Performance in Large Buildings

Exceeding State Requirements

The City can require buildings that fall under the commercial code (non-residential and medium- to high-rise residential buildings) to improve energy efficiency and performance beyond state requirements. Although developers and contractors expressed concerns about exceeding state requirements, many participants expressed support for the measure and its positive environmental impact. For example, some TAG members and public workshop participants recommended aiming for net-zero buildings. At the final TAG meeting, participants reviewed the entire draft policy and expressed support for energy and performance targets that exceed the state code.

Energy and Performance Pathways

The project team explored three pathways for implementing more stringent energy efficiency requirements:

- A performance-based target pathway in which a building would be required to meet certain energy and performance outcome;
- A third-party certification pathway in which a building would be required to achieving a minimum green building rating; and
- A prescriptive pathway in which the applicant would be required to submit a checklist where they specify if they meet requirements for insulation, windows, or other metrics.

Developers and contractors who participated in engagement activities recommended the City offer all three pathways, as they have different benefits and disadvantages. Offering a choice would make it easier for developers with varying resources and diverse projects to meet the requirement. For example, the performance-based target may work well for large commercial buildings and developers who already do energy modeling, but it may be too costly for others. In contrast, affordable housing providers expressed that it could be easier to budget with a compliance checklist for a prescriptive pathway. The prescriptive pathway would also be more suitable for small commercial and residential buildings; however, others may find it too prescriptive.

Technical Challenges

Developers and contractors who participated in engagement activities expressed concerns about improving energy and performance. For example, roundtable participants noted that

it can be challenging to determine the specific improvements needed to meet these targets, which can create uncertainty and increase costs.

Participants said that navigating the technical components of the new pathways may be complicated, especially for smaller developers. They suggested that the City provide developers with tailored resources and/or hire someone to help them comply with the new pathways.

Grid Capacity

Throughout the engagement activities, participants raised concerns about the capacity of the electric grid to accommodate the level of electrification promoted by the GBS. Some TAG members recommended the City advocate for Clark Public Utilities to produce more green power.

4.2. Energy and Performance in Small Residential Buildings

Recommendations

- Incentivize small residential buildings to meet energy efficiency requirements aligned with the Climate Action Framework Goal of net-zero emission by 2040 (i.e., exceed state code.
- Explore opportunities to work with the real estate and construction sector to educate homebuyers and tenants about the energy efficiency of homes.

Feedback on Energy and Performance in Small Residential Buildings

Exceeding State Requirements

The City cannot require detached homes and low-rise multifamily buildings to exceed the state code, but it can incentivize them to do so. Engagement participants expressed support for this approach.

Current Practices

Engagement participants reported implementing many measures to enhance energy efficiency and support electrification in small residential buildings. For example, the

majority of developers and contractors who responded to survey questions on small residential buildings reported deploying heat pumps, air-sealing, programmable thermostats, and air-sealing. Some also implemented airtight construction and passive design solutions. Additionally, a TAG member said that many builders are already building net-zero ready homes; however, building fully net-zero homes is significantly more expensive.

Barriers to Improving Energy and Performance

Survey responses indicated that the most common challenge to taking additional measures is cost. The second most common challenge cited by survey respondents was potential buyers and tenants having limited knowledge or interest in energy efficiency or electrification. This theme was echoed by participants in the TAG and Green Building Strategy Roundtable.

They shared examples of lack of knowledge related to:

- How the larger upfront costs of green features can be offset by lower ownership costs in the long-term;
- How some green technologies, such as solar PV for detached homes, have reduced in cost and become more affordable;
- The range of green technologies, such as EV chargers, at varying price points;
- The non-financial benefits of efficient buildings, such as increased comfort; and
- How to maintain green aspects of homes, such as light-colored pavement.

TAG members suggested consumer education so buyers know what to look for when purchasing or leasing homes. They also suggested requiring or encouraging building energy scores or rating systems to help consumers know the environmental impacts of the spaces they are buying or leasing.

4.3. Benchmarking

Recommendations

- Require participation in a benchmarking program (e.g., EnergyStar Portfolio Manager) for non-residential and medium- to high-rise multifamily buildings. Provide developers with guidance on how to participate and include a grace period to accommodate those who must build capacity to participate.
- Incentivize enrollment in the Home Energy Score Program.

Feedback on Benchmarking

Engagement activities sought feedback on options for benchmarking building performance with energy scores and rating systems. The idea came up early in the engagement process at the first TAG meeting. TAG members reported that some local developers already pursued energy ratings for homes via Energy Star and the Energy Trust of Oregon. Some members recommended the City consider energy scores and rating systems for new buildings with one floating the idea of incorporating energy scores into property sale to help buyers understand energy and performance.

Engagement participants had mixed feedback on the proposal to benchmark building performance with energy scores and rating systems. While some supported the idea, others expressed concern about the burden it could place on developers.

Respondents to the Developer and Contractor Survey answered a question on a draft proposal in which owners of buildings over 20,000 square feet would have to enroll in the EnergyStar Portfolio Manager and report on the building's energy and water use. Some respondents indicated they lacked resources or knowledge to participate.

Benchmarking in Real Estate Transactions

As noted above, one solution proposed for educating the public is to require energy and performance information to be provided for real-estate transactions. To gather information about interest in this solution, the developer and contractor survey included a question on a proposal to have a benchmarking and disclosure program in which homes would undergo a one-hour home energy assessment to receive a Home Energy Score rating. The rating would be provided to homebuyers and renters for considerations during real-estate transactions. Over half respondents said they would not support the proposal. However, engagement participants in other activities expressed interest in the proposal.

5. Theme 2: Climate and Environmental Impacts

The second theme of the GBS focuses on reducing climate impacts through buildings' life-cycles. It encompasses embodied carbon, construction and demolition waste, EV charging, and bike parking.[6]

5.1. Embodied Carbon

Recommendations

- Incentivize embodied carbon reduction in all buildings and make the requirements to obtain incentives more stringent over time.
- Explore opportunities to collaborate with nearby jurisdictions (City of Portland, Clark County, etc.) on a regional approach to reducing embodied carbon.
- Allow pilot projects that test approaches to reduce embodied carbon.
- Develop resources to support developers with learning about and adopting embodied carbon. Include information on:
    - Specific products that can be used to reduce embodied carbon;
    - Cost and return on investment;
    - Carbon impacts and other non-financial benefits;
    - How to adopt materials; and
    - How to conduct embodied carbon calculations.
- Provide or facilitate technical training and education about best practices for reducing embodied carbon in partnership with developers and organizations that have relevant expertise and experience. Showcase local case studies as a part of this training.

Feedback on Embodied Carbon

Making and moving building materials, as well as construction, are one of the most significant sources of greenhouse gas emissions. Engagement activities sought feedback on

[6] The engagement process also explored measures to increase water conservation, including requiring low-flow water fixtures and appliances. However, developers and contractors reported that they are already implementing this in response to state requirements, so it was removed from the policy. Otherwater conservation measures, such as incentivizing native plants that don't require watering, are captured in Theme 4: Ecological and Natural Systems.

how to reduce embodied carbon in new buildings. At the first TAG meeting—before any draft policies were presented—several TAG members expressed support for this thematic area.

Phasing Embodied Carbon Requirements

Engagement participants commented on various drafts of an approach to incorporate embodied carbon requirements into the GBS. The draft policy presented at the final TAG meeting recommended incentivizing non-residential and medium- to high-rise multifamily buildings to comply with one of the following embodied carbon requirements:

1) Retain 45% of more (by area) of the existing structure and/or exterior materials.
2) Achieve the 25-40% reduction in A1 to A3 (product stage) embodied carbon emissions for 90% of eligible products considered in aggregate, compared to a reference project with the same type and quantity of eligible products and current industry average emissions data.
3) Complete a Whole Building Life Cycle Assessment (WBLCA) of the structural and enclosure that demonstrates the 10-20% reduction in embodied emissions compared to a reference building.

The required compliance percentages would become more stringent over time. TAG members expressed support for this proposal and suggested that the policy should also incentivize reducing embodied carbon in small residential buildings.

Current Practices

Engagement participants said that local developers and contractors have limited experience with reducing embodied carbon. For example, just 16% of respondents to relevant questions in the Developer and Contractor Survey reported having used low-carbon materials.

At the same time, engagement participants mentioned a variety of low-carbon materials that have been used locally. For example, roundtable participants said that Portland lime cement and steel rebar from Seattle are both cost effective and have less embodied carbon than comparable materials. Additionally, TAG members highlighted examples of how their organizations have reduced embodied carbon, including:

- Mass timber buildings,
- Using less cement in the ready mix, and

- Using 3-D models to pre-cut lumber and minimize waste.

Interest in Embodied Carbon

In spite of limited experience, many engagement participants from the construction sector indicated they would be open to adopting low-carbon materials and other practices to reduce embodied carbon. Engagement participants expressed interest in using and/or seeing the following materials deployed:

- Prefab or cut materials to reduce waste,
- Recycled materials,
- Mass timber,
- Low-carbon concrete, and
- Salvaged materials.

Additionally, a landscape architect recommended the City look at measures to preserve carbon in soil as a part of its embodied carbon requirements. Participants also recommended considering where materials are sourced from, since local materials would have a lower transportation emissions.

A few participants were particularly enthusiastic about mass timber. For example, one roundtable participant recommended the City incentivize more mid-rise residential buildings of 5 to 7 stories that are made of mass timber to increase housing density while limiting embodied carbon.

Additionally, roundtable participants noted that some “green” measures may require adding concrete to developments, such as building new paths for pedestrians and cyclists in master-planning developments. They suggested finding ways to reduce the amount of concrete used to build infrastructure to reduce embodied carbon.

Barriers to Reducing Embodied Carbon

Engagement participants highlighted several barriers to adopting low-carbon materials, including cost, a limited supply of materials, increased construction time required to incorporate low-carbon materials, and a lack of knowledge about low-carbon materials.

For example, one participant at a GBS roundtable said they heard that there was only one mass timber supplier in Washington and they could not keep up with demand, while another participant said they had tried using low-carbon concrete in a project, but no local

contractors were willing to use it. This participant worried contractors may avoid working in Vancouver if new low-carbon requirements are implemented.

Roundtable participants suggested the City work together with the broader region to implement embodied carbon requirements to ensure that they don't deter new development in Vancouver. Additionally, a TAG member recommended adopting an environmental product declaration requirement for building materials (similar to Portland) because many local developers are already familiar with this approach. TAG participants also recommended allowing pilot projects of new construction techniques to lower embodied carbon.

Training on Embodied Carbon

Engagement participants indicated education, training, and information about low-carbon materials would support their adoption. GBS roundtable participants said that many local building contractors as well design professionals including engineers, planners, and architects would require training to support projects that reduce embodied carbon.

Participants suggested the following resources for developers:

- A list of specific products that can be used to reduce embodied carbon;
- Information on the cost, return on investment, carbon impacts, and other benefits of adopting low-carbon building materials;
- Information on how low-carbon materials can be adopted;
- Guidelines on embodied carbon calculations; and
- Workshops and lectures on low-carbon materials, including in partnership with local industry associations like the Building Industry Association of Clark County.

Forty percent of respondents to a question on resources on embodied carbon in the survey said they would find at least one of the following resources helpful: case studies, guidelines on embodied carbon calculations, technical assistance, and workshops introducing low-carbon materials.

5.2. Construction and Demolition Waste

Recommendations

- Require job sites for non-residential buildings, medium- to high-rise multifamily buildings, and small residential projects over 5,000 square feet or 3 dwelling units to have dedicated and signed containers for a minimum of four waste streams:
    - Commingled recycling,
    - Recycling for specific materials (i.e., clean wood, ferrous materials, concrete washout, gypsum wall board with the material types changing according to the construction phase),
    - Compost, and
    - Garbage.
- Assess how the City can support the salvage and reuse of local materials and consider adapting Portland's guidelines on buildings worthy of deconstruction for Vancouver.

Feedback on Construction and Demolition Waste

Engagement activities sought feedback on how to reduce the environmental impact of construction and demolition waste. At the first TAG meeting (before any draft policies were presented) several TAG members expressed support for this thematic area. They suggested:

- Waste audits to reduce construction waste,
- Encouraging the salvage and reuse of materials locally,
- Encouraging less demolition and construction waste,
- Reusing construction and asphalt waste, and
- Creating guidelines on buildings worthy of deconstruction, such as those created by the City of Portland.

Over the course of several engagement activities, few participants expressed concern about draft requirements related to construction and demolition waste. Some participants raised concern about the cost of some practices, particularly salvaging materials at demolition sites, and suggested incentivizing measures.

The final draft policy presented to the TAG suggested incentivizing or requiring the provision of dedicated and signed jobsite containers at non-residential and medium- to

high-rise multifamily buildings. A minimum of four containers would be required to receive the following waste streams:

- Commingled recycling,
- Recycling for specific materials (i.e., clean wood, ferrous materials, concrete washout, gypsum wall board with the material types changing according to the construction phase),
- Compost, and
- Garbage.

The draft policy also recommended requiring residential projects of over 5,000 square feet or more than three dwelling units be required to adhere to the same requirements as larger buildings. TAG members did not express objections to this proposal.

5.3. EV Charging

Recommendations

- Require 25% of parking spots in new medium- to high-rise multifamily buildings to have Level-2 EV chargers.
- Incentivize new multifamily buildings to exceed EV-capable parking requirements (for Level-2 chargers) mandated by the state code in order to accommodate future electrification and encourage EV adoption.
- Incentivize EV-ready parking in small multifamily buildings.
- Reduce parking requirements for new buildings that meet EV charging standards detailed in the GBS.

Feedback on EV Charging

Engagement participants responded to a variety of questions on potential EV requirements for the GBS to gauge what challenges developers might face in providing EV parking, as well as identify useful support and incentives.

Engagement participants had differing opinions on how much EV parking should be required by the policy. Some, including public workshop participants, expressed they would like to see more EV parking. Others, including some developers and contractors, expressed concerns about higher EV parking requirements because of cost and a perception that it is not currently needed.

EV Parking Demand in Large Buildings

Engagement participants commented on the proposal to require Level-2 EV chargers in 25% of parking spots in new commercial and large multi-unit residential buildings. They indicated that cost and electrical installation requirements would be the biggest challenges for meeting such a requirement.

Additionally, roundtable participants indicated this requirement was suitable for residential buildings with one describing it as "the sweet spot." However, they said it would be too high for non-residential buildings since many people charge their EVs at home, rather than non-residential locations.

Roundtable participants also said Level-3 charging stations are much more popular at commercial buildings than slower Level-2 chargers. However, they suggested that Level-2 charging stations may be more appropriate for offices and other locations that people park at for several hours,

EV-Capable and EV-Ready Parking in Large Residential Buildings

To balance considerations related to existing and future demand for EV chargers, drafts of the policy explored the option of providing EV-ready and EV-capable parking instead of and/or in addition to spaces with EV chargers. The Developer and Contractor Survey included a question on challenges for implementing a draft requirement to require spaces without EV chargers (75% of spaces) in new medium- to high-rise multifamily buildings to be EV capable for Level-2 chargers with conduits and appropriate electrical room sizing. Over half of respondents said increased cost would be a challenge. The second most common challenge was that such a requirement would increase construction time.

In addition to barriers, engagement participants provided feedback on incentives for installing Level-2 EV chargers and developing EV-capable parking spaces (for Level-2 chargers). Survey respondents indicated that financial support (e.g., grants, low-interest loans) and reduced parking requirements would be helpful incentives.

EV Parking in Small Residential Buildings

Engagement participants also provided feedback on EV parking for detached homes and low-rise residential buildings. Some developers include EV parking in all new homes. For example, one TAG member said that it was standard for their company. At the same time, other participants had concerns about cost and whether or not chargers would be used.

To better understand the challenges to wider adoption, the Developer and Contractor Survey included a question on challenges related to providing EV-ready parking for Level-2 chargers in single-family homes and low-rise multifamily housing. Almost 90% of those who answered the question indicated cost would be a challenge. Additionally, over half indicated a lack of interest among homeowners/tenants.

5.4. Bike Parking

Recommendations

- Require one secure bike parking space per two dwelling units, with 20% of all bike stalls to accommodate e-bike charging.
- Follow Seattle requirements for bike parking at commercial establishments.

Feedback on Bike Parking

Engagement participants had the opportunity to weigh in on potential bike parking requirements for new non-residential and medium- to high-rise multifamily buildings. Some engagement participants expressed a desire for more infrastructure to support biking, including bike parking in commercial buildings and downtown.

The final draft policy presented to the TAG recommended:

- Requiring 1 parking space per two dwelling units, with 20% of all bike stalls to accommodate e-bike charging, in medium- to high-rise multifamily buildings; and
- Following Seattle requirements for long-term and short-term parking at commercial establishments (spaces vary by establishment).

TAG members did not object to this proposal.

Barriers to Bike Parking

Some developers and contractors raised concerns about bike parking requirements. For example, a participant at the equity workshop raised concerns about the space required to provide bike parking. Additionally, a roundtable participant suggested the City adjust bike parking requirements by building type and the area it is in, since bikes are used in some

places more than others. In response to these concerns, the draft policy was adjusted to require fewer mandatory bike stalls.[7]

To better understand the challenges to developing bike parking, the Developer and Contractor Survey included a question on barriers to implementing bicycle storage and e-bike charging in non-residential and medium- to high-rise multifamily buildings. Survey respondents indicated the three main barriers are cost, a lack of interest among building occupants and users, and electrical installation requirements.

6. Theme 3: Climate Resilience

The third theme focuses on creating buildings and developments that use 100% clean energy and enhance the community's climate resilience. It covers renewable energy, sustainable roofs, cool non-roof surfaces, and communal refuge areas.

6.1. Renewable Energy: On-Site Energy Generation and Storage

Recommendations

- Incentivize on-site renewable energy generation and storage for non-residential and medium- to high-rise multifamily buildings. Define renewable energy broadly to create opportunities for emerging technologies and options other than solar.
- Incentivize solar-ready detached homes and low-rise multifamily buildings.
- Provide or facilitate education, technical assistance, and sharing of best practices on developing on-site renewable energy and storage. Work with industry associations and local organizations with expertise on the topic.
- Provide resources for developers to learn about potential systems, their costs, and benefits, such as a matrix detailing the costs and benefits of different renewable energy systems.

[7] Earlier drafts of the policy presented at a TAG meeting, GBS Roundtables, and the Equity Workshop called for 1 bike stall per dwelling. This was reduced to 1 bike stall per two dwellings in the final draft presented to the TAG.

Feedback on On-Site Renewable Energy and Storage

Engagement activities sought feedback on a variety of options for the GBS related to renewable energy, which is critical for achieving the goals in the Climate Action Framework. The feedback on renewable energy focused on two key areas: on-site renewable energy storage and community energy systems.

Current Practices

Local developers and contractors have different levels of experience implementing on-site energy generations and storage. For example, less than half of respondents to the developer and contractor survey reported that their organizations have experience in this area. Those that did have experience were most likely to have deployed solar energy systems.

Barriers to On-Site Renewable Energy

Engagement participants highlighted several challenges and barriers to incorporating on-site renewable energy generation and battery storage into new buildings. These include:

- Lack of knowledge on renewable energy systems among developers;
- Cost,
- Difficulty with the permitting process,
- Supply chain issues,
- A lack of skilled workers,
- Space for renewable energy generation onsite, and
- Difficulty connecting with the grid.

Some participants also expressed concerns about the environmental and human rights impact of energy systems. For example, a TAG member noted that renewable systems involving water body heat exchange can harm fish habitat when dumping heat. Other participants raised concerns about environmental harms and human rights violations associated with rare earth metals required for renewable developments.

Engagement participants suggested the following resources to support developers:

- A matrix detailing the costs and benefits of different renewable energy systems, and
- A checklist for the renewable energy project approval process.

Additionally, a TAG member recommended the City be broad about what qualifies as renewable energy production to create opportunities for using future technologies other than solar.

Solar Energy For Detached Homes and Low-Rise Buildings

Engagement participants also weighed in on proposals to incentivize solar installations and solar-ready roofs on detached homes and low-rise buildings. This was one of the renewable energy technologies with which developers and contractors reported the most experience. About half of developers and contractors who responded to the survey had built solar-ready roofs or solar installations on small residential buildings.

Developers and contractors who participated in engagement indicated that costs would pose a significant challenge for promoting solar energy installations in small residential buildings. Many participants also indicated that a lack of interest among building owners would be a barrier. Participants explained that the lack of public interest was tied to the cost of solar installations and the lengthy time period for attaining a return on investment on them.

Some participants also expressed concerns about site conditions, a lack of professionals with knowledge about solar installations, supply chain issues, and a lack of internal capacity.

6.2. Renewable Energy: Community Energy Systems

Recommendations

- Require or provide strong incentives for new developments with multiple buildings to perform energy assessments for implementing district energy systems and microgrids and to implement those systems when determined to be viable and beneficial.
- Explore opportunities to work with developers and build public-private partnerships for microgrids and district energy systems.
- Explore opportunities to promote community solar projects in new developments and for buildings that are not amenable to rooftop solar.

Feedback on Community Energy Systems

District Energy Systems and Microgrids

At their first meeting, TAG members suggested the policy include measures to promote microgrids and district heating and cooling systems. Drawing on this suggestion, the project team proposed for the GBS to require new developments with multiple buildings to perform energy assessments for implementing district energy systems and microgrids and to implement those systems when determined to be viable and beneficial. This proposal was shared with the TAG and at other engagement activities.

TAG members suggested that microgrids and district energy systems could be one avenue for promoting sustainable neighborhood development. Some of them recommended the City work with developers and explore public-private partnerships to create such systems. One TAG member floated the idea of a district heating system that pulls heat from the Columbia River. Another suggested promoting distributed energy systems connected to rooftop solar.

At the same time, Some TAG members suggested incentivizing, rather than requiring, this measure. Additionally, engagement participants expressed concerns about the cost of this proposal. Most developers and contractors who responded to the survey indicated that the costs associated with assessments, system infrastructure (e.g., piping, electricity wires), and energy generation infrastructure would pose a challenge. Additionally, about half of them indicated capacity to conduct assessments would be a challenge.

Community Solar

Some TAG members suggested allowing and encouraging community solar projects. One member pointed out that these could act as an alternative for buildings that are not amenable to rooftop solar.

6.3. Sustainable Roofs

Recommendations

- Promote diverse sustainable roofing options (blue, green, highly reflective, solar) in the GBS and offer developers with flexibility to choose between them.
- Provide or facilitate education, technical assistance, and sharing of best practices related to installing and maintaining sustainable roofs.

Feedback on Sustainable Roofs

Engagement participants provided feedback on how the GBS could promote sustainable roofs, including:

- Green roofs, living roofs, and roof gardens;
- Blue roofs;
- Highly-reflective roofs; and
- Solar roofs (discussed above under section on renewable energy).

Developers and contractors reported varying levels of experience with sustainable roofs. Only a handful of those who responded to the survey reported deploying these technologies.

Engagement participants highlighted several barriers to building sustainable roofs. The most prominent barriers include:

- Cost,
- Lack of knowledge on maintaining alternative roofs,
- Ongoing maintenance and monitoring requirements for green roofs,
- Lack of interest among building owners,
- Uncertainties related to insurance coverage,
- A lack of professionals with knowledge about the options.

Additionally, TAG members provided detailed feedback on challenges related to the ongoing maintenance and monitoring requirements of green roofs, including labor costs, maintaining healthy and thriving plants in the long term, detecting and fixing leaks, and installing irrigation (if required).

TAG members suggested that the GBS policy tackle this issue by giving developers options to choose between different roof treatments, rather than prescribing specific roof treatments for specific buildings. They also recommended training and education for the

construction industry on sustainable and resilient surfaces, as well as marketing the benefits of sustainable and resilient surfaces to potential building owners and users.

6.4. Cool Non-roof Surfaces

Recommendations

- Incentivize, rather than require, cool-non roof surfaces.
- Provide or facilitate education, technical assistance, and sharing of best practices related to cool non-roof surfaces.
- Explore options to improve the community's flood preparedness and local drainage systems with green landscaping features.

Feedback on Cool Non-Roof Surfaces

Engagement participants also had opportunities to provide feedback on how the GBS could promote cool surfaces for non-roof hardscape. Cool surfaces can be highly reflective, highly permeable, or shaded.

Developers and contractors reported varying levels of experience with cold non-roof surfaces. Over half of respondents to the developer and contractor survey indicated they would need financial assistance to deploy such surfaces. Some also reported that they would need training. Additionally, some participants shared anecdotal concerns that indicate a lack of local experience with cool hardscapes. For example, a participant in the nonresidential roundtable described going to four different companies to get highly reflective paving for a 10-acre project before learning they would have to "retool the whole process" to install it.

Additionally, some TAG members shared that permeable pavement can get contaminated and clogged up. They suggested promoting green landscaping measures, like bioswales and rain gardens, to achieve the same benefits.

6.5. Communal Refuge Areas

Recommendations

- Incentivize communal refuge areas for shelter-in-place during emergencies.
- Identify areas that require communal refuge areas for extreme weather events and how these can be provided as a part of the City's emergency planning and preparation. Work with developers to address these gaps and/or offer greater incentives for communal refuge areas in zones of the City with greatest need.

Feedback on Communal Refuge Areas

The draft policy presented to engagement participants included incentivizing communal refuge areas in new buildings that fall under the commercial code for shelter-in-place during emergencies. These areas would have heating, cooling, potable water, and backup power for emergencies, such as heat waves, power outages, and storms. These areas could make use of existing communal spaces to provide these supports.

Engagement participants strongly recommended that this incentive be limited to multifamily housings. They also expressed limited interest in building communal refuge areas. For example, developers and contractors who responded to the survey indicated that this proposal posed many challenges, including increased costs, lack of space, a sense that such areas are unnecessary, and lower profitability. This perspective was echoed by some engagement participants in other activities.

7. Theme 4: Ecological and Natural Systems

The fourth theme focuses on protecting and fostering healthy local ecosystems. It covers landscaping measures, bird-friendly design, Dark Sky lighting, and habitat restoration and preservation.

7.1 Landscaping Measures

Recommendations

- Require preservation of mature trees and native and drought-resistant plants in alignment with Vancouver's Urban Forestry Program goals.
- Incentivize carbon sequestration in soil.
- Provide or facilitate technical training and support on implementing sustainable landscaping measures in partnership with developers and organizations that have relevant expertise and experience.

Feedback Landscaping Measures

The draft measures present at various engagement events included requirements and incentives to preserve mature trees and increase native and climate-resilient plants (in alignment with Vancouver's Urban Forestry Program) and supporting soil management to increase carbon sequestration. Few engagement participants had concerns about this proposal and public workshop participants expressed support for it.

Additionally, of the different areas being considered for Theme 4, engagement participants reported the most experience with landscaping measures. For example, over half of respondents to a related question on the Developer and Contractor Survey reported preserving mature trees and planting native and drought-resistant plants. Some respondents also reported planting butterfly gardens.[8]

Additionally, landscaping measures—specifically incorporating native and drought-resistant plants and preserving mature trees—were among the measures engagement participants had the least concerns about implementing. For example, equity workshop participants

[8] No respondents had experience with carbon sequestration in soil.

described planting native and drought-resistant plants as low-cost measures, while 42% of respondents to a question on landscaping measures in the Developer and Contractor Survey said they did not expect to face any challenges with implementing such measures.

Half of the respondents cited concerns about increased costs, while a few mentioned the availability of seedlings for native and drought-resistant plants and a lack of professionals with knowledge about landscaping.

Finally, some participants suggested stronger landscaping measures than those currently required by the City, including retention or replacement of all trees on a development site.

7.2. Bird-Friendly Design

Recommendations

- Require bird-friendly design for new non-residential buildings and multifamily buildings subject to the commercial code.
- Provide or facilitate technical training and support on implementing the bird-friendly design requirements in partnership with developers and organizations that have relevant expertise and experience.

Feedback on Bird-friendly Design

Some engagement participants, including those who attended the public workshop, expressed support for bird-friendly design; however, developers and contractors who responded to the survey and participated in other engagement activities had limited experience with bird-friendly design. Participants expressed concerns about the potential cost of bird-friendly design and accessing professionals with knowledge about bird-friendly design.

Many of the concerns around costs were based on hear-say rather than concrete experience. Additionally, perspectives on the cost varied; engagement participants shared examples of projects that had involved significant and insignificant cost increases as a result of bird-friendly design. Some TAG members advised requiring bird-friendly design because developers would be unlikely to implement it otherwise. They noted that bird-

friendly design could be expensive, but not necessarily.[9] Additionally, TAG members noted that bird-friendly design requirements are standard in the Port of Vancouver and New York City.

Some engagement participants were also concerned about accessing materials for bird-friendly design. For example, participants in the non-residential roundtable said they hear there is limited availability of bird-friendly materials in the region.

Engagement participants recommended reaching out to local organizations with experience in bird-friendly design, such as the Bird Alliance of Oregon and the Port of Vancouver, and drawing on existing resources, such as the Audubon Society's bird-safe building guidelines, to develop and implement a bird-safe design policy.

7.3. Dark Sky Lighting

Recommendations

- Require Dark Sky lighting measures for new non-residential buildings and multifamily buildings subject to the commercial code.
- Incentivize Dark Sky lighting measures in new buildings that are not subject to the commercial code.

Feedback on Dark Sky Lighting

Dark Sky Lighting is currently deployed in some new buildings in Vancouver, but developers and contractors are able to deploy it widely.[10] No engagement participants expressed concern about requiring Dark Sky lighting. Developers and contractors indicated it would have a marginal impact on cost and some engagement participants recommended requiring it.

[9] This perspective is backed up by SSG's research into capital costs and bird-friendly design policies in other North American jurisdictions. While bird-safe design can be expensive, costs vary based on the approach and materials selected.

[10] Only 12% of respondents to the Developer and Contractor Survey indicated they deployed Dark Sky lighting. A few participants in other engagement activities also mentioned having deployed it.

7.4. Ecological Assessments for Greenfield Developments

Recommendations

- Require assessment and mitigation of risks to birds in the planning and development of greenfield developments.
- Require habitat assessments and restoration for greenfield developments.
- Incentivize salmon-safe urban standard certification for greenfield developments.
- Provide or facilitate technical training and support on carrying out ecological assessments and habitat restoration in partnership with developers and organizations that have relevant expertise and experience.

Feedback on Ecological Assessments for Greenfield Developments

The draft policy presented at engagement events proposed mitigating the environmental impact of greenfield developments through requiring specific incentives, such as:

- Assessment and mitigation of risks to birds in the planning of the development site as a whole,
- Salmon-safe urban standard certification, and
- Habitat assessment and restoration.

No respondents raised concerns about the overall proposal in live engagements; however, 40% of respondents to a question on the topic in the Developer and Contractor Survey expressed they had no interest in such assessments. At the same time, 60% of respondents selected answers that indicated they would be open to it. Of those respondents, half had experience with environmental assessments. Additionally, half reported having the capacity to undertake them.

Only one participant commented on a specific element of the proposal. A TAG member noted that achieving salmon-safe urban standard certification is challenging and suggested incentivizing, rather than requiring, it.

Annex VI

Recommendations for Reducing GHG Emissions from City of Vancouver Municipal Buildings

City of Vancouver

New Green Building Strategy

September 2024

Prepared by SSG

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Background

On July 3, 2024 the SSG team engaged the City of Vancouver Municipal Facilities Team by video call to discuss opportunities for reducing the greenhouse gas emissions of existing municipal facilities. The following people participated in the call:

Sustainability Solutions Group:

- Jeremy Murphy, Principal
- Alia Dharssi, Consultant & Director, Marketing and Communications
- Stephen Salter, P.Eng., Consultant

City of Vancouver:

- Brian Taylor, Facilities Superintendent
- Chad Eiken, Director, Community and Economic Development
- Geraldine Moyle, General Services Director
- Jean Singer, Capital Project Manager
- Rebecca Small, Senior Policy Analyst

The concept-level suggestions below are based on the information provided by City of Vancouver personnel, and also on information contained in the City of Vancouver's 2022/2023 Facility Summary documents for individual municipal buildings. Some of the concept-level suggestions below relate to the electrical systems, structural elements, and HVAC systems of the City's buildings. These concept-level suggestions must be reviewed by qualified professional engineers who are familiar with code requirements and regulations in Washington State.

Suggestions - All Buildings

1. Governance Strategies

1.1 Maximizing Use of CAF Funding

Issue

Staff explained that it is excellent that the City has allocated $500k for solar PV and a further $500k per year for EV charging infrastructure for the 2024 fiscal year. Staff also explained that it can be challenging to plan, procure, and deploy larger infrastructure

projects within a 12 month period. This planning also places an additional burden on the time of staff, with the result that these funds have not been fully utilized to date.

Suggestion

The City could continue to allocate funding each year for solar PV and EV charging infrastructure, but not require that these funds be spent within a given budget cycle. Instead, funds could accumulate in a green investment fund. At the City's discretion, savings resulting from green investments could also be returned to the green investment fund, to provide additional funds for future projects.

The City could also broaden its categories for green investment to include building electrification (e.g. replacing natural gas boilers with heat pumps), and building energy efficiency. These two additional categories will result in immediate greenhouse gas reductions, as well as cost savings, for the City.

To mitigate the additional burden of planning for green infrastructure investments, the City could engage a qualified engineering firm to support the design and programming of green infrastructure projects. Procurement and contracting would remain the City's responsibility, either through standard City processes or by utilizing the Washington State Energy Services Company (ESCO) program, as appropriate. City staff would continue to lead high-level planning and oversight.

The City should also actively seek other sources of funding from senior governments, such as the *Washington State Department of Commerce Energy Retrofits for Public Buildings*, and also funding which may flow to the state level for the benefit of cities, from the *Inflation Reduction Act*.

1.2 Standardizing the Components Needed for Electrification

Issue

If natural gas boilers are replaced with heat pumps on a building-by-building basis over a number of years, there is a risk that the City's procurement process will result in different makes and models of heat pumps being installed each building by different contractors. This default situation will result in higher training costs for city personnel, higher maintenance costs, and potentially higher initial costs.

Suggestion

The City has an opportunity to standardize on the make, and potentially also the model of heat pumps which will be installed in its buildings. For example, if a building requires a total heat pump capacity of "100 units", then this capacity could be provided by five modules with a capacity of 25 units each (for n+1 redundancy, where n is 100/25 = 4, and +1 = 5). Similarly, if another building requires a total heat pump capacity of "50 units", then this capacity could be provided by three modules with a capacity of 25 units of power each.

Staff could explore purchasing standardized heat pump modules under a bulk procurement agreement, resulting in lower initial cost. Service contracts could specify that common spare parts be warehoused on behalf of the City at a location offering rapid delivery. The City could even consider storing a complete spare unit in one of its buildings. It should be noted that standard practice is to purchase products when they are ready for install so as to maximize warranties; feasibility should also be evaluated based on storage availability and handling issues. Existing contracts with HVAC companies may affect the City's ability to purchase equipment and should be considered during procurement.

As a first step, the City could engage a qualified building engineering firm to determine the optimum capacity of standardized heat pump modules which could serve the greatest number of city buildings. The City could also ask this firm to determine if the standardized modules could be used to provide space heating, domestic water heating, and also space cooling. In specific, could transcritical CO2 (R744) heat pumps provide the higher supply temperatures required by typical hydronic heating systems, as well as space cooling?

The same standardization process could be applied to solar PV equipment (panels, rectifiers, controls, and so on).

2. Technical Strategies - All Buildings

2.1 Possible Strategies to Avoid Electrical Service Upgrades

Issue

Staff explained that replacing natural gas boilers with heat pumps can require expensive electrical service upgrades. Electrical upgrades were required for electrification of Fire Station 5, for example.

2.1.1 Suggestion: Conserve Electrical Capacity with Combination Heat Pump/Chillers

Most City buildings are equipped with natural gas boilers and also electric chillers. The ampacity of circuits which supply the electric chillers will consume part of the total capacity of the building's electrical service (i.e. the capacity of service conductors from the electric utility to the building, the capacity of the meter and base, the capacity of the building's electrical panel, and so on). The electrical capacity of circuits which supply the chillers will be reserved throughout the year, despite the fact that chillers only operate when cooling is needed.

On the other hand, if chillers are replaced with machines that can provide space cooling, space heating, and domestic hot water, then the amount of additional electrical service capacity which will be required may be reduced.

For example, if existing chillers consume 20 units of the capacity of a building's electrical service capacity, and replacing fossil fuel boilers with heat pumps would require an additional 30 units of service capacity, then installing heat pumps (while keeping the existing chillers in service) would require an increase in the building's service capacity of 30 units. On the other hand, if the new heat pumps can also provide cooling (either simultaneously with heating in a heat recovery mode, or separately by acting as chillers) such that the existing chillers can be retired, then the new heat pumps would only require an additional 10 units of service capacity (30 units minus 20 units). It is more likely that the existing electrical service of a building will have available capacity of 10 units versus 30 units, and the net increase could potentially be accommodated by other electricity conservation measures, such as eliminating all electric resistance heating in the building, installing more efficient lighting, and so on. (This example is for illustrative purposes; buildings would need to be examined on a case-by-case basis to determine applicability.)

As an example of the amount of electrical capacity which chillers can require, the Electrical Service and Distribution section of the Facility Summary for the Fort Vancouver

Library states that the main 480 volt, three phase electrical service switchboard has a capacity of 1,000 amps, and that this switchboard "sub-feeds the chiller room GE 480V, 600A panel". Clearly, the buildings existing chillers consume a significant portion of the building's total service capacity.

2.1.2 Suggestion: Reduce Electrical Capacity Requirements Through Energy Conservation

If natural gas boilers are replaced with electric heat pumps *before* energy conservation measures are completed, then the heat pumps will need to have a similar capacity to the boilers they replace. On the other hand, completing planned or readily achievable energy conservation measures—such as envelope improvements and efficiency upgrades—before determining heat pump sizing can significantly reduce building loads, allowing natural gas boilers to be replaced with smaller electric heat pump/chiller systems.

When the City engages HVAC consultants to plan the electrification of its buildings, the City could require its consultants to first identify and incorporate all feasible energy conservation measures prior to determining electrical loads and equipment sizing. The City could also require consultants to determine the extent to which thermal storage (for example in the form of heated or chilled water storage, heated bricks, and Phase Change Materials) can be used to reduce the total capacity of heat pumps required, and to reduce the capacity of back-up electric resistance required.

2.1.3 Suggestion: Reduce Electrical Capacity Requirements with Hybrid Systems

Load-duration curves for building heat commonly show that 80% or more of all energy for heating can be supplied by 50% of the total installed capacity of heating equipment. If electric heat pumps are used to provide 50% of the required heating *capacity*, then small condensing natural gas boilers could be meet the remaining (peak) demand. In such a hybrid system, natural gas would only supply 20% of all *energy* for heating. As a result, converting a building from natural gas heating alone to a hybrid system of heat pumps and natural gas boilers would significantly reduce greenhouse gas emissions. This approach could be beneficial if the electrical service capacity in a building is constrained, or during times of temperature extremes when electricity is inefficient for conditions.

2.1.4 Suggestion: Work with the Electric Utility to Minimize the Cost of Service Upgrades

In some cases, increasing the electrical capacity of a building will also require upgrades to distribution infrastructure (transformers, conductors, switchgear, and so on) on the part of the electric utility. In a worst-case scenario, a building owner may be required to cover the cost of the utility's infrastructure between the building and the nearest substation, which can be significant.

Ideally, the suggested strategies listed above will help avoid or minimize the cost of electrical service upgrades to municipal buildings. For service upgrades which are still required, City personnel could work with the electric utility to determine whether an upgrade at a given building will also require upgrades in the electric utility's distribution infrastructure. If so, and if several municipal buildings are located in the same area, instead of requesting service upgrades to individual buildings with several years between upgrades, could it be less expensive to plan for a single upgrade to the electric utility's infrastructure? It is also possible that the City's plans will dovetail with the utility's own plans, such that the cost of major upgrades could be shared with the utility or even with other building owners.

2.1.5 Suggestion: Battery Storage

As heat pump and solar PV installations are planned, the City could require its engineering consultants to evaluate the costs and benefits of electric battery storage (which can level the timing of supply and demand of a building equipped with rooftop solar PV), and also thermal storage (which can help level the peak demand for electricity for space heating and cooling). The goal of the evaluation is to determine if the cost of an electrical service upgrade could be avoided by investing in electrical and thermal storage. Evaluations should include a space assessment to ensure adequate storage and operation space for new equipment. Other technologies for potential evaluation may include renewable thermal energy systems such as ground source heat pumps and wastewater heat recovery systems.

2.2 Integrated Planning for Roof Upgrades

Issue

The City's building condition reports note that the roofing surfaces of some municipal buildings have which have reached their end of life. If only the roofing surface of these

buildings is replaced, then these roofs may still not be structurally adequate to support future solar PV installations.

Suggestion

As planning is carried out for roofing surface replacements, the City could engage a qualified engineering firm to evaluate the long-term costs and benefits of simultaneously replacing surfaces, of ensuring the roof is suitable for a future solar PV installation, and installing solar either concurrent with the roof replacement or at a future date.

The main benefits of solar PV are local electricity generation, cost savings, and greenhouse gas emission reductions. A secondary benefit of solar PV panels on rooftops is that they provide shading to roof surfaces by acting as a "radiation shield", which reduces the amount of energy required for cooling.

2.3 Improvements to Building Envelopes

Issue

Several municipal buildings have older aluminum doors and single-pane windows, which will increase energy consumption for heating in winter, and cooling in summer.

Suggestion

In preparing the cost justifications to replace older windows and doors with more efficient versions, City personnel could take into account the following costs and benefits:

1) The economic value of lower energy costs after the retrofits.
2) The economic value of extending the life of the building envelope, and hence the building itself. One way of accounting for this value could be to consider that at some point in the future, older windows and doors would need to be replaced because they are failing. Replacing them today rather than in the future simply means this future expense is incurred earlier. The cost (and value) of replacing older windows and doors today means that the future cost is avoided. A similar method can be used to recognize the value of replacing a boiler or chiller before their end of life.
3) The value of reducing the capacity (and hence cost) of heat pump/chillers which will replace fossil fuelled boilers. More energy efficient buildings will require less heating and cooling capacity.
4) The less tangible, but still important, value of higher productivity of employees who will work in greater thermal comfort after energy upgrades are complete.

For aging windows and doors with long timelines for replacement, staff should consider mitigation measures such as sun shielding, blinds, weatherization, and shades which are easy and inexpensive to apply but have significant impacts on energy consumption.

2.4 Standby Generators vs Battery Storage

Issue

Standby generators require storage of either diesel fuel, or biodiesel. Biodiesel must be consumed (for example through regular generator testing) or replaced over time, and biodiesel fuel storage represents a risk of spills and environmental contamination.

Suggestion

For buildings which do not require more than one day of back-up electricity, the City could consider negotiating with the electric utility to invest in electric battery storage to replace existing generators and fuel storage. Electric battery storage could reduce the City's cost of maintaining and managing diesel-powered back-up systems, and can also provide value to the utility in the form of grid stabilization and conditioning services. Would the value received by the electric utility be high enough to significantly reduce the initial cost of battery storage to the City?

The City should carefully consider the potential hazards associated with on-site battery storage systems used for backup electricity and ensure that appropriate safety plans are in place. Battery energy storage systems can present risks such as thermal runaway, fire and explosion hazards, release of toxic gases during failures, electrical shock, and challenges for emergency response. To mitigate these risks, the City should require clear protocols for safe storage, routine maintenance, regular inspection, and coordination with fire and emergency services throughout the life of the system.

3. Technical Strategies - Individual Buildings

This section offers specific suggestions for four of the City's largest municipal buildings, in order to illustrate how the more general suggestions outlined above could be applied. The City Hall is not included here, because of its efficient geo-exchange system.

Firstenburg Community Center

Cooling Plant: The 2022/2023 Facility Summary notes that an original (installed in 2006) "*Heat pump chiller is failing with one of four compressors currently failed*." Heating,

however, is provided by four high-efficiency natural gas boilers which were installed in 2018 and are not near their end of life. In total, the 2022/2023 Facility Summary recommends an investment of approximately $1.4 million in HVAC improvements for the Firstenburg Centre. The City could consider:

1) Specifying heat pump/chillers which could provide space heating, space cooling, and domestic hot water to the Centre;
2) Keeping one or more of the 2018-vintage natural gas boilers at the Firstenburg Centre, to meet peak heating demand following the strategy outlined in the "Reduce Electrical Capacity Requirements with Hybrid Systems" section above.
3) The remaining 2018-vintage natural gas boilers could be removed from the Firstenburg Centre and installed in other municipal buildings along with new heat pump chillers, also following the strategy outlined in the "Reduce Electrical Capacity Requirements with Hybrid Systems" section above.

Leupke Community Centre

Roof: The 2022/2023 Facility Summary notes that "*The current roof, built over the original, and roof coverings are at the end of life and are actively leaking*." Because the roof must be repaired, the City could consider completing the repairs in a way which would allow solar PV panels to be installed, with any additional costs covered by the City's CAF funding.

Heating Plant: The 2022/2023 Facility Summary notes that heat is provided by "*Two aging gas-fired furnaces serving the west area*" which were installed in 1978, and that cooling is provided by "*Two aging condensing units*" which were installed in 2000, and a further five condensing units which were installed in 2010. Because the Facility Summary recommends replacing heating equipment, cooling equipment, and also HVAC distribution and control systems, the City has an opportunity to specify heat pump/chillers which could provide space heating, space cooling, and domestic hot water.

VPD HQ Chkalov Building

The VPD HQ Chkalov building is the fourth-largest municipal building by area.

Roof: The 2022/2023 Facility Summary notes that the low-slope roof could hold 50 kW of solar-PV panels. The Facility Summary also recommends an investment of $490,000 for a standby generator. The City could consider installing a solar-PV array, along with electric battery storage instead of a standby generator.

Fort Vancouver Regional Library

The Fort Vancouver Regional Library is the fifth-largest municipal building by area (if the Marshall Community Center and the Leupke Senior Center, both located at 1009 East Mcloughlin Blvd, are treated as one complex).

Roof: The 2022/2023 Facility Summary notes that the roof has minimal insulation (estimated at R-4.5), that the roof membrane is at its end of life and is leaking, and that asbestos in the existing roof system will need to be abated. The City could engage a qualified engineering firm to evaluate the long-term costs and benefits of replacing this roof with a structure which can support a future solar PV installation, and with a roofing system having higher thermal insulation.

Windows: The 2022/2023 Facility Summary notes that the Library has single pane windows. The cost justification for replacing these windows could include the factors listed in the “Improvements to Building Envelopes” section above.

Vancouver, Washington

Annex V
Green Building Policy
Financial Modeling Brief

August 19, 2024

Introduction

As the City of Vancouver creates its Green Building Policy, it seeks to understand the potential costs and savings associated with various green building approaches. The following is a high-level financial analysis of green building costs and savings produced with the best information available at the time.

There are two components to the analysis:

1. Calculations: the costs and savings of several standalone green building components are calculated on a per household and/or per square foot basis. Standalone components are assessed without considering their interactive energy use and emissions producing effects. Calculations are performed for a representative single-family (SF) home, multi-family (MF) building, and non-residential (NR) building as well as over the entire building new stock in each of these building categories.

2. Modeling: the costs and savings of several interdependent green building components are modeled using SSG's Scena model, which accounts for interactions between the components that affect energy use and emissions production. Modeling is performed for the entire new building stock. These components include roofing, HVAC controls, HVAC components like furnaces and heat pumps, and high efficiency building envelopes.

Estimated Single Family Home Costs and Savings

Estimated Costs and Savings for a 2-storey, 2,800sf Single Family Home with a 1,750sf roof	***Incremental* Capital Costs** US$ per home	**Energy Cost Savings*** $/year	***Incremental* Maintenance Costs** $/year	**Assumptions**
High Albedo Roofing	$350	Inc. in envelope	$0	$0.20/sf premium.
Green Roofing	$12,250	Inc. in envelope	$88	$7/sf installed premium vs asphalt, $0.40/sf annual maintenance premium.
High Albedo Paving	$80	N/A	$16	80sf driveway, $1/sf sealant premium, reseal every 5 years.
Grass Pavers	$160	N/A	$0	80sf driveway, $7/sf permeable pavers vs $5/sf asphalt.
Level 2 EV Charger	$1,200	N/A	N/A	$600 charger + $600 installation per unit.
Low-carbon Concrete	$358	N/A	N/A	1% cost premium vs conventional concrete, concrete is 8% of total construction cost.
Smart Controls	$1,500	Inc. in heat pump	N/A	+$150/unit, 10 zones.
Air source electric heat pump	$970	-$125	$0	$13,830 for installed natural gas furnace & central AC vs $14,800 installed central ducted heat pump, before grants (which can reduce cost by ~$7,000).
Solar PV panel array (7kW)	$9,730	-$687	$84	7kW system, before grants (which can reduce costs ~30%), $12/kW/year maintenance.
High efficiency building envelope	$10,500	-$354	$0	~40% energy efficiency improvement, ~$6/sf (floor area) premium.
Total for a home with high albedo roofing and paving	$24,688	-$1,166	$100	
Total for a home with green roofing and green pavers	$36,668	-$1,166	$172	

*Energy cost savings are modeled values.

Estimated Multi-family Building Costs and Savings

Estimated Costs and Savings for a 100-unit Multi-family Building with a 13,000sf roof	***Incremental* Capital Costs** US$ per unit*	**Energy Cost Savings**** $/year	***Incremental* Maintenance Costs** $/year	**Assumptions**
High Albedo Roofing*	$2,600	Inc. in envelope	$0	$0.20/sf premium.
Green Roofing*	$91,000	Inc. in envelope	$607	$7/sf installed premium vs asphalt, $0.40/sf annual maintenance premium.
High Albedo Paving*	$200	N/A	$40	200sf driveway, $1/sf sealant premium, reseal every 5 years.
Grass Pavers*	$400	N/A	N/A	200sf driveway, $7/sf permeable pavers vs $5/sf asphalt.
Level 2 EV Charger	$3,000	N/A	N/A	$600 charger + $2,400 installation per unit.
Low-carbon Concrete	$478	N/A	N/A	1% cost premium vs conventional concrete, concrete is 5% of total construction cost.
Low-carbon Steel	$938	N/A	N/A	3.5% cost premium vs conventional steel, steel is 7% of total construction costs.
Smart Controls	$750	Inc. in heat pump	N/A	+$150/unit, 5 zones.
Air source electric heat pump	-$3,891	-$144	$0	$16,776 per unit installed heat pump vs $20,667 per unit installed gas furnace + split AC.
Solar PV panel array (49kW)*	$68,110	-$4,809	$588	49kW system, before grants (which can reduce costs ~30%), $12/kW/year maintenance.
High efficiency building envelope	$10,940	-$409	$0	~40% energy efficiency improvement, ~$10/sf premium.
Total for high albedo roofing and paving, with EV chargers installed for 25% of units (1 per unit)	$1,067,392	-$60,070	$628	
Total for green roofing and green pavers, with EV chargers installed for 25% of units (1 per unit)	$1,155,992	-$60,070	$1,195	

*These items are presented on a per development (not per unit) basis.

**Energy cost savings are modeled values.

Estimated Non-residential Building Costs and Savings

Estimated Costs and Savings for a 4-storey, 50,000sf Non-residential Building with a 12,500sf roof	***Incremental* Capital Costs** US$	**Energy Cost Savings*** $/year	***Incremental* Maintenance Costs** $/year	**Assumptions**
High Albedo Roofing	$2,500	Inc. in envelope	$0	$0.20/sf premium.
Green Roofing	$87,500	Inc. in envelope	$625	$7/sf installed premium vs asphalt, $0.40/sf annual maintenance premium.
High Albedo Paving	$8,100	N/A	$1,620	50 x 162sf parking spaces, $1/sf sealant premium, reseal every 5 years.
Grass Pavers	$16,200	N/A	N/A	50 x 162sf parking spaces, $7/sf permeable pavers vs $5/sf asphalt.
Low-carbon Concrete	$24,000	N/A	N/A	1% cost premium vs conventional concrete, concrete is 8% of total construction cost.
Low-carbon Steel	$73,500	N/A	N/A	3.5% cost premium vs conventional steel, steel is 7% of total construction costs.
Smart Controls	$6,000	N/A	N/A	$150/unit, 10 zones per storey.
Air source electric heat pump**	-$3,891	-$4,878	0	$16,776 per unit installed heat pump vs $20,667 per unit installed gas furnace + split AC.
Solar PV panel array (49kW)	$68,110	-$4,809	588	49kW system, before grants (which can reduce costs ~30%), $12/kW/year maintenance.
High efficiency building envelope	$450,000	-$13,830	0	~40% energy efficiency improvement, ~$9/sf premium.
Total for high albedo roofing and paving	$628,319	-$23,517	$2,208	
Total for green roofing and green pavers	$721,419	-$23,517	$1,213	

*Energy cost savings are modeled values.

**The same space heating arrangement as for the multi-family building example has been assumed due to lack of reliable information on commercial heat pump installations. A fairer assessment would assume a simpler system for the average commercial building.

Modeled Energy Cost Savings

The Scena model calculates year-over-year energy cost savings gained by energy technologies and energy efficiency measures. The following graph shows the savings from using heat pumps and high efficiency building envelope measures in all new buildings (residential and non-residential) from 2025-2050.

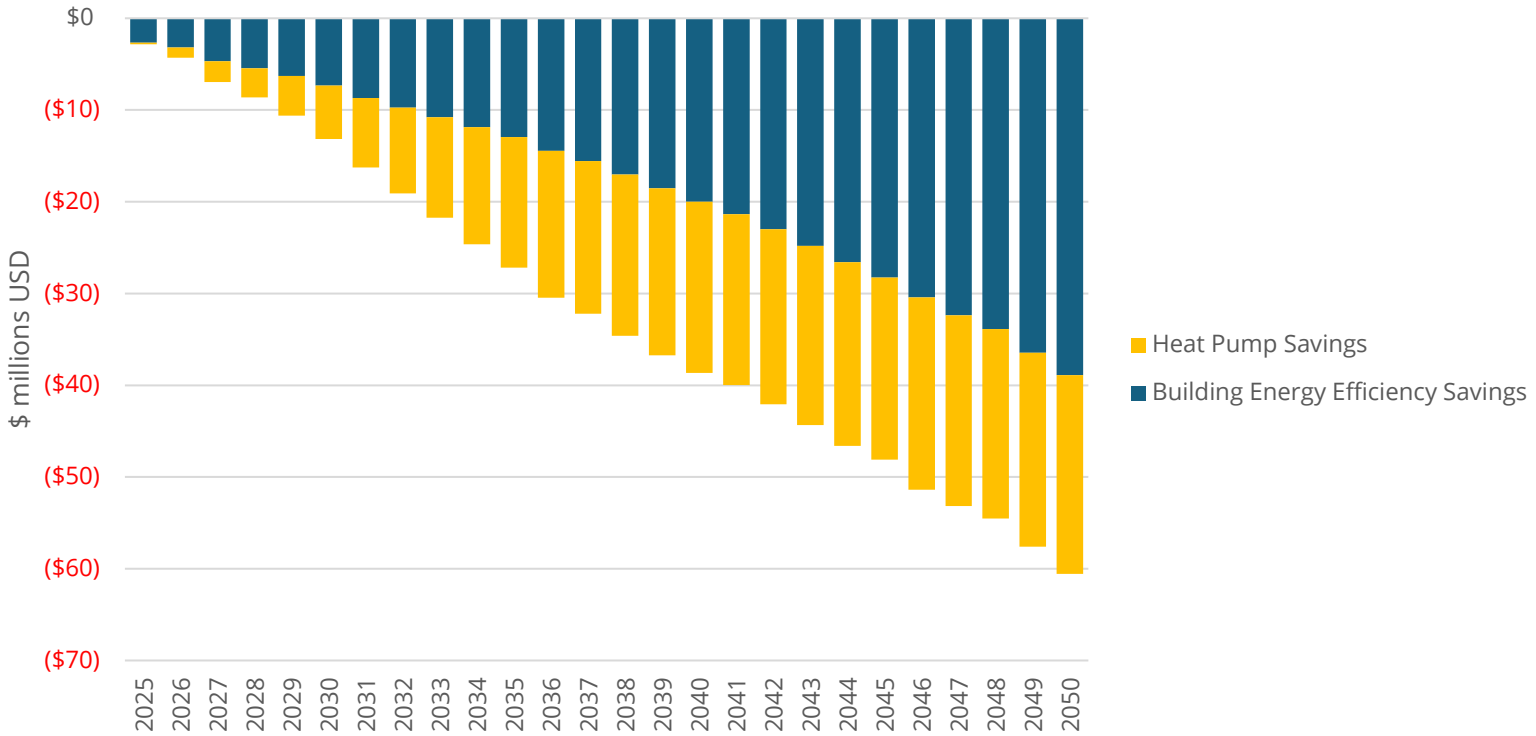

Figure 1. Energy cost savings from heat pumps and high efficiency building envelope measures in all new buildings.

Over the course of 25 years, heat pumps save over $360M and high efficiency envelopes save over $465M across all new buildings built over this time period. These energy savings continue past 2050 as well.

Assumptions and References

Green Building Feature	References
High Albedo Roofing	Global Cool Cities Alliance Pacific Gas and Electric Cost: Homeguide
Green Roofing: Vegetation	Costs: Rand Engineering, U.S. EPA, RMI, Eco Gardens,
High Albedo Sealant Paving	Costs: American Society of Civil Engineers
Grass Pavers	Costs: Homeguide
EV Charging Infrastructure: Level 2 Charging	Costs: Flo USA Washington DOE provides up to $10,000 per EV charging plug for multi-family buildings, which is paid for by the Volkswagen (VW) Environmental Mitigation Trust. Washington DOE QMerit
Low-carbon Concrete	Lower-carbon concrete can be produced by means of CO2 mineralization, by the addition of fly ash, or by using engineered sand which increases the strength of the concrete, thus allowing less material to be used. The emission factor for conventional concrete is 690 lbs/cubic yard (410 kg/m3). Per the RMI analysis, the additional cost of low-carbon concrete is assumed to be 1%. Carbon Cure RMI Costs: World Economic Forum
Low-carbon steel	The incremental cost from the World Economic Forum report gives a similar result to that of the IIGCC report (an incremental cost of approximately $1 per square foot). Institutional Investors Group on Climate Change Costs: World Economic Forum
Smart controls vs normal controls	Assuming an incremental cost of $150 per smart, wi-fi enabled thermostat.
Heat pumps	California Single Family New Construction Cost Effectiveness Study California Multi Family New Construction Cost Effectiveness Study
High Efficiency building envelope	State Code will see a ~27% energy efficiency improvement over the 2006 baseline reference building by 2031. The calculations and modeling here target a 40% improvement over the 2006 baseline (13% difference).

Additional Assumptions

Single Family Home Assumptions	Value	Unit	Source	Notes
Construction cost of a medium SF home	160	$/sf	Homeguide	
Floor area of a medium SF home	2,800	sf		
Roof area of a medium SF home	1,750	sf		Assume 2 levels, 4/12 roof pitch, 1.5-foot overhang
Built cost of a medium SF home	448,000	$		
Price of electricity in Vancouver	0.0879	$/kWh	Clark Public Utilities	

Multi-family Building Assumptions	Value	Unit	Source	Notes
Construction cost of a multi-family building	350	$/sf	Janover	
Floor area per multi-family unit	1,094	sf	Pacific Gas and Electric	
Number of units per multi-family building	36		Pacific Gas and Electric	
Floor area per multi-family building	39,372		Pacific Gas and Electric	
Number of storeys per multi-family building	3		Pacific Gas and Electric	
Construction cost per multi-family dwelling unit	382,783	$		
Roof area of a multi-family building	13,124	sf		Assume 4/12 roof pitch, 1.5-foot overhang
Price of electricity in Vancouver	$0.0879	$/kWh	Clark Public Utilities	

Non-residential Building Assumptions	Value	Unit	Source	Notes
Construction cost of a non-residential building	600	$/sf	Estimate	
Price of electricity in Vancouver	0.0879	$/kWh	Clark Public Utilities	

Disclaimer

Reasonable skill, care, and diligence have been exercised to assess the information acquired during the preparation of this analysis, but no guarantees or warranties are made regarding the accuracy or completeness of this information. This document, the information it contains, the information and basis on which it relies, and the associated factors are subject to changes that are beyond the control of the authors. The information provided by others is believed to be accurate but has not necessarily been verified.

This analysis includes strategic-level estimates of construction costing that should not be relied upon for design or other purposes without verification. The authors do not accept responsibility for the use of this analysis for any purpose other than that stated below and do not accept responsibility to any third party for the use, in whole or in part, of the contents of this document. This analysis applies to the City of Vancouver, Washington and cannot be applied to other jurisdictions without analysis. Any use by the City, its sub-consultants, or any third party, or any reliance on or decisions based on this document, are the responsibility of the user or third party.

Appendix B

Green Building Financial Analysis
prepared by BAE Urban Economics

CITY OF Vancouver WASHINGTON

Green Building Policy Development Cost Analysis

bae urban economics

Introduction

City of Vancouver Green Building Policy Overview

The Green Building Policies are designed to align future development in the City with sustainability and climate resiliency goals. They aim to boost energy efficiency, reduce greenhouse gas emissions to help achieve the City's goal of carbon neutrality by 2040, offer safe refuge for residents during climate-related hazardous conditions, and protect the City's local ecology.

BAE Analysis Overview

To further understand the potential implications of the Green Building Policies on development costs, BAE conducted the following:

- Market Research and Financial Analysis of Prototypical Development in the City of Vancouver
- Development Cost and Operating Cost Implications of Individual Green Building Policies
- Valuation of Potential City Incentives

Development Prototypes

	Prototype 1 Garden-Style Apartment		Prototype 2 Podium Apartment		Prototype 3 Office		Prototype 4 Industrial	
Prototype Example Image								
Development Description								
Site Size Sf - Acres	67,224	1.54	39,204	0.9	126,324	2.90	90,071	2.07
# of Units		40		200		n.a.		n.a.
Average Unit Size		945		775		*n.a.*		*n.a.*
Total Building SF		**44,491**		**206,667**		**60,000**		**25,000**
Livable/Leasable SF		*37,817*		*155,000*		*54,000*		*25,000*
Circulation (% -SF)	*15%*	*6,674*	*25%*	*51,667*	*10%*	*6,000*	*0%*	*0*
Density	*DU/Acre*	26	*DU/Acre*	222	*FAR*	0.41	*FAR*	0.25
Parking Type		Surface		Podium		Surface		Surface
# of Parking Spaces		60		200		180		50
Parking Ratio	*1.50*	Per Unit	*1.00*	Per Unit	3.00	Per 1,000 SF	2.00	Per 1,000 SF

Baseline Development Costs

	Prototype 1 Garden-Style Apartment		Prototype 2 Podium Apartment		Prototype 3 Office		Prototype 4 Industrial	
Prototype Example Image								
Development Description								
Site Size Sf - Acres	67,224	1.54	39,204	0.9	126,324	2.90	90,071	2.07
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Average Unit Size		945		775		*n.a.*		*n.a.*
Total Building SF		**44,491**		**206,667**		**60,000**		**25,000**
Livable/Leasable SF		*37,817*		*155,000*		*54,000*		*25,000*
Baseline Development Costs								
	Total	Per Unit	Total	Per Unit	Total	Per SF	Total	Per SF
Site Acquisition	$800,000	$20,000	$4,000,000	$20,000	$1,450,000	$24	$1,351,061	$54
Site Preparation Costs	$1,008,366	$25,209	$784,080	$3,920	$1,894,860	$32	$900,708	$36
Hard Cost	$10,455,328	$261,383	$62,000,000	$310,000	$10,800,000	$180	$2,875,000	$115
Commercial TI's	n.a.	n.a.	n.a.	n.a.	$4,500,000	$75	$375,000	$15
Parking Cost	$300,000	$7,500	$12,000,000	$60,000	$900,000	$15	$250,000	$10
Soft Costs	$2,588,013	$64,700	$14,956,816	$74,784	$3,980,869	$66	$660,106	$26
Impact Fees	$481,286	$12,032	$2,422,896	$12,114	$357,245	$6	$200,550	$8
Financing Costs	$633,136	$15,828	$5,019,750	$25,099	$967,260	$16	$267,803	$11
Developer Fee	$468,990	$11,725	$2,884,914	$14,425	$716,489	$12	$198,373	$8
Total Baseline Development Costs	**$16,735,119**	**$418,378**	**$104,068,456**	**$520,342**	**$25,566,724**	**$426**	**$7,078,601**	**$283**
Per Total Bldg SF	*$376*		*$504*		*$426*		*$283*	

List of Considered Policies (page 1 of 2)

Green Building Policy	Policy Description
Bike Parking	Provide bike parking to accommodate 1 Stall per residential unit, 1 stall per 4,000 SF (office), or 40,000 SF (industrial).
Lower Carbon Building Materials	Use building materials with lower carbon emissions
Indoor Temperature Control	Ensure all regularly occupied spaces retain a certain temperature
Bird Friendly Design	Bird friendly windows or design for the first 40 feet above grade
Improved Energy Efficiency	Local amendments to the Washington State Energy Code, aligning with City of Seattle
Air Filtration Standard	Ensure safe indoor air quality, especially during wildfire season
Sustainable Building Materials	Bio-based, wood, reused material, or recycle content used as building material

List of Considered Policies (page 2 of 2)

Green Building Policy	Policy Description
Renewable Energy Generation	Buildings over 10,000 SF to provide on-site renewable energy generation
Cool Roofing	Highly reflective roof, green roof, water capture system, or solar roofing
DarkSky Lighting	All outdoor light fixtures must meet “DarkSky” standards
EV Chargers on Commercial Meter	EV chargers on a commercial meter for lower rates and separate metering
Cool Site Surfaces	50% of non-building site surface is required to be highly reflective, permeable, or vegetated
All Electric Ready	Residential and non-residential buildings to be 100% electric capable
Climate Adapted Vegetation	All vegetation must be drought resistant and native to the Pacific Northwest

General Approach and Methodology

- Review Green Building Policy and Identify Implications to Prototypes
- Estimate Green Building Policy Impact on Development Costs
  - Increase Cost of Construction
  - Longer Project Timeline
  - Material Premiums
  - Foregone Revenue, Etc.
- Identify Future Operating Cost/Savings
  - Maintenance and Replacement Costs
  - Energy Use Increase
  - Energy Generation
  - Water Savings, Etc.
- Conduct Stakeholder Interviews
  - Feedback on Development Cost and Operating Cost Implications
- Calculate Net Benefit/Cost of Green Building Policy on Development
  - Add in Financing and Capital Costs to Green Building Policy Development Cost Impacts

Development Cost Impact of Green Building Policies

Bike Parking Requirement

Overview

Policy Description

Provide 1 bike parking stall per unit for residential and 1 stall per 4,000 SF (office) or 40,000 SF (industrial).

Calculation Methodology

- Determine the required bike parking spaces and associated bike parking room size*
- Estimate Development Cost
  - Approximate annual foregone rent from bike parking room, assuming the bike room replaces other revenue-generating uses
- Estimate Operating Cost/Savings
  - Determine the number of E-bike stalls
  - Apply annual cost of energy
  - Estimate Current value using cap rate

Calculation Assumptions

Prototype 1 Example:

Net Bike Parking SF: 765

Annual Rent Net of Operating Expenses per SF: $27.30

Cap Rate: 5%

Estimated Annual E-Bike Charging Costs: $13.23

# of E-Bike Stalls: 8

Calculation Example (Prototype 1)

Development Cost/Value Lost

(765 X $27.30) / 5%

=

$417,567 Value of Foregone Revenue

Operating Cost/Savings

($13.23 X 8) / 5%

=

$2,118 Value of Additional Operating Costs

=

$419,685 Net Cost

+

$27,500 Financing Costs

* While City code would allow bike parking requirement be met with a mix of in unit, patio, or dispersed bike storage rooms, this analysis assumes the provision of one concentrated bike room.

Bike Parking Requirement

Development Cost Impact

Prototype Example Image				
Prototype Description	**Garden Style Apartment**	**Podium Apartment**	**Office**	**Industrial**
Total Development Cost Impact	$417,567	$2,248,439	$121,622	$7,819
Addt'l Financing Costs and Fees	$27,500	$170,783	$8,010	$515
Total Value of Operating Costs / (Savings)	$2,118	$10,588	$794	$66
Net Impact	**$447,184**	**$2,429,809**	**$130,425**	**$8,400**
Cost Impact per Unit / SF	*$11,180*	*$12,149*	*$2.17*	*$0.34*
% of Total Costs	*2.67%*	*2.33%*	*0.51%*	*0.12%*

Low Carbon Building Materials

Overview

Policy Description

A 20 to 40 percent reduction in carbon emissions for building materials, material transportation, and manufacturing. Completed with a Whole Building Life Cycle Assessment.

Calculation Methodology

- Identify component of project impacted by Low Carbon Requirements (i.e., podium parking, and foundation, etc.)
- Estimate Development Cost
  - Increase costs for low carbon materials (i.e., concrete, etc.)
- Estimate Operating Cost/Savings
  - No operating savings are associated with low carbon concrete.

Calculation Assumptions

Prototype 1 Example:

Parking Cost per Stall: $5,000

Low Carbon Concrete Cost Increase: 15%

# of Parking Stalls: 60

Calculation Example (Prototype 1)

Development Cost

$5,000 X 12% X 60

=

$45,000 Low Carbon Concrete Costs

Operating Cost/Savings

$0 Operating Savings

=

$45,000 Net Cost

+

$2,964 Financing Costs

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Low Carbon Building Materials

Development Cost Impact

Prototype Example Image				
Prototype Description	**Garden Style Apartment**	**Podium Apartment**	**Office**	**Industrial**
Total Development Cost Impact	$45,000	$1,800,000	$675,000	$85,417
Addt'l Financing Costs and Fees	$2,964	$136,721	$44,454	$5,625
Total Value of Operating Costs / (Savings)	$0	$0	$0	$0
Net Impact	**$47,964**	**$1,936,721**	**$719,454**	**$91,042**
Cost Impact per Unit / SF	*$1,199*	*$9,684*	*$11.99*	*$3.64*
% of Total Costs	*0.29%*	*1.86%*	*2.81%*	*1.29%*

Indoor Temperature Control

Overview

Policy Description

Ensure all regularly occupied spaces are equipped with operable windows, and air conditioning to ASHRAE standard 55-2017.

Calculation Methodology

- Estimate Development Cost
  - Increase hard costs for HVAC associated with policy.
- Estimate Operating Cost/Savings
  - Identify costs to cool common areas
  - Estimate value using cap rate

Calculation Assumptions

Additional Hard Cost per Building SF: $4.50

Building SF: 44,491

Annual Operating Costs: $5 per unit

Number of Units: 40

Cap Rate: 5%

Calculation Example (Prototype 1)

Development Cost

$4.50 X 44,491

=

$200,208

Indoor Temperature Control Costs

Operating Cost/Savings

($5 X 40) / 5%

=

$4,000 Operating Costs

=

$204,208 Net Cost

+

$13,185 Financing Costs

Indoor Temperature Control

Development Cost Impact

Prototype Example Image				
Prototype Description	**Garden Style Apartment**	**Podium Apartment**	**Office**	**Industrial**
Total Development Cost Impact	$200,208	$930,000	$210,000	$125,000
Addt'l Financing Costs and Fees	$13,185	$70,639	$13,830	$8,232
Total Value of Operating Costs / (Savings)	$4,000	$20,000	$20,000	$62,500
Net Impact	**$217,394**	**$1,020,639**	**$243,830**	**$195,732**
Cost Impact per Unit / SF	*$5,435*	*$5,103*	*$4.06*	*$7.83*
% of Total Costs	*1.30%*	*0.98%*	*0.95%*	*2.77%*

Bird Friendly Design

Overview

Policy Description

The first 40 feet above grade and 12 feet above a green roof required to include bird friendly windows or design.

Calculation Methodology

- Determine building square foot below 40 feet.
- Estimate Development Cost
  - Apply an additional cost per building square foot with bird friendly design.
- Estimate Operating Cost/Savings
  - Limited operating costs or savings

Calculation Assumptions

Required Square Feet of Bird Friendly Design: 44,491

Additional Cost for Bird-Friendly Design: $7.22 per SF

Calculation Example (Prototype 1)

Development Cost

44,491 X $7.22

=

$321,313 Bird Friendly Design Costs

Operating Cost/Savings

$0 Operating Savings

=

$321,313 Net Cost

+

$21,161 Financing Costs

Bird Friendly Design

Development Cost Impact

Prototype Example Image				
Prototype Description	**Garden Style Apartment**	**Podium Apartment**	**Office**	**Industrial**
Total Development Cost Impact	$321,313	$852,885	$476,653	$90,275
Addt'l Financing Costs and Fees	$21,161	$64,782	$31,391	$5,945
Total Value of Operating Costs / (Savings)	$0	$0	$0	$0
Net Impact	**$342,474**	**$917,667**	**$508,044**	**$96,220**
Cost Impact per Unit / SF	*$8,562*	*$4,588*	*$8.47*	*$3.85*
% of Total Costs	*2.05%*	*0.88%*	*1.99%*	*1.36%*

Improved Energy Efficiency
Overview

Policy Description
Amendments to the current Washington State Energy Code requiring improved energy efficiency.

Calculation Methodology
- Estimate Development Cost
  - Apply a percent increase applied to total project costs
- Estimate Operating Cost/Savings
  - No operating costs or savings apply

Calculation Assumptions
Percent Increase to Total Project Costs: 1.0%
Total Project Costs: $16,735,119

Calculation Example (Prototype 1)
Development Cost
1.0% X $16,735,119
=
$167,351 Development Costs

Operating Cost/Savings
$0 Operating Savings
=
$167,351 Net Cost
+
$11,021 Financing Costs

Note: Total project costs include the 2021 Washington State Energy Code updates. The percent increase is the incremental costs of the specific amendments made by the City of Vancouver to the 2021 Washington State Energy Code.

Improved Energy Efficiency
Development Cost Impact

Prototype Example Image				
Prototype Description	**Garden Style Apartment**	**Podium Apartment**	**Office**	**Industrial**
Total Development Cost Impact	$167,351	$780,513	$191,750	$53,090
Addt'l Financing Costs and Fees	$11,021	$59,285	$12,628	$3,496
Total Value of Operating Costs / (Savings)	$0	$0	$0	$0
Net Impact	**$178,372**	**$839,798**	**$204,379**	**$56,586**
Cost Impact per Unit / SF	*$4,459*	*$4,199*	*$3.41*	*$2.26*
% of Total Costs	*1.07%*	*0.81%*	*0.80%*	*0.80%*

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Air Filtration Standard

Overview

Policy Description

Ensure safe indoor air quality during wildfires by complying with MERV-13 rated filtration and EPA Indoor AirPlus program requirements.

Calculation Methodology

- Estimate Development Cost
  - Apply additional hard cost per square foot for air filtration material costs
- Estimate Operating Cost/Savings
  - Calculate filter replacement costs and wages to replace filters
  - Estimate value using cap rate

Calculation Assumptions

Increase to Hard Cost per Bldg SF: $2.50

Building SF: 44,491

Filter Replacement Costs: $11.50

Number of Replacements per Year: 6

Cap Rate: 5%

Calculation Example (Prototype 1)

Development Costs

$2.50 X 44,491

=

$111,227 Air Filtration Costs

Operating Cost/Savings

($11.50 X 6) / 5%

=

$55,200 Operating Costs

=

$166,427 Net Cost

+

$7,325 Financing Costs

Air Filtration Standard

Development Cost Impact

Prototype Example Image				
Prototype Description	**Garden Style Apartment**	**Podium Apartment**	**Office**	**Industrial**
Total Development Cost Impact	$111,227	$516,667	$150,000	$250,000
Addt'l Financing Costs and Fees	$7,325	$39,244	$9,879	$16,464
Total Value of Operating Costs / (Savings)	$55,200	$276,000	$15,000	$13,000
Net Impact	**$173,752**	**$831,911**	**$174,879**	**$279,464**
Cost Impact per Unit / SF	*$4,344*	*$4,160*	*$2.91*	*$11.18*
% of Total Costs	*1.04%*	*0.80%*	*0.68%*	*3.95%*

Sustainable Building Materials

Overview

Policy Description

25% of permanently installed building product must be bio-based, wood, reused material, recycled content, or sourced within 800km of the project site.

Calculation Methodology

- Estimate Development Cost
  - Apply a percent increase to soft costs for sustainability consultant costs
- Estimate Operating Cost/Savings
  - No operating costs or saving associated with sustainable building materials

Calculation Assumptions

Total Soft Costs: $2,588,013

% Increase to Soft Costs: 5%

Calculation Example (Prototype 1)

Development Cost

$2,588,013 X 5%

=

$129,401

Sustainable Materials Costs

Operating Cost/Savings

$0 Operating Savings

=

$129,401 Net Cost

+

$8,522 Financing Costs

Sustainable Building Materials

Development Cost Impact

Prototype Example Image				
Prototype Description	**Garden Style Apartment**	**Podium Apartment**	**Office**	**Industrial**
Total Development Cost Impact	$129,401	$373,920	$199,043	$49,508
Addt'l Financing Costs and Fees	$8,522	$28,402	$13,108	$3,260
Total Value of Operating Costs / (Savings)	$0	$0	$0	$0
Net Impact	**$137,923**	**$402,322**	**$212,152**	**$52,768**
Cost Impact per Unit / SF	*$3,448*	*$2,012*	*$3.54*	*$2.11*
% of Total Costs	*0.82%*	*0.39%*	*0.83%*	*0.75%*

Renewable Energy Production

Overview

Policy Description

Residential or non-residential buildings over 10,000 square feet to provide up to 0.5W per building square foot of renewable energy.

Calculation Methodology

- Determine required kilowatt production (kW) per building
- Estimate Development Cost
  - Identify structural upgrades for solar readiness
  - Estimate solar panel installation costs
  - Apply typical cost per kW
- Estimate Operating Cost/Savings
  - Estimate daily sunlight hours
  - Calculate total on-site kW production
  - Apply Clark County electricity rates (hourly)
  - Account for solar panel output and maintenance

Calculation Assumptions

Solar-Ready Infrastructure Costs per Unit: $1,875

Required kW per Building: 22

Solar Costs per kW: $3,000

Hours of Daily Sunlight: 3.5
Clark County Electricity Rate per kWh: $0.09
% of Maintenance Costs: 20%
Cap Rate: 5%

Calculation Example (Prototype 1)

Development Cost

$1,875 X 40 Units
+
22 kW X $3,000
=
$141,736 Solar Costs

Operating Cost/Savings

((3.5 X 22) X 365 days X $0.09 X (1-20%))/5%
=
$39,968 Operating Savings Value

=

$101,768 Net Costs

+

$9,334 Financing Costs

Renewable Energy
Development Cost Impact

Prototype Example Image				
Prototype Description	**Garden Style Apartment**	**Podium Apartment**	**Office**	**Industrial**
Total Development Cost Impact	$141,736	$685,000	$210,000	$87,500
Addt'l Financing Costs and Fees	$9,334	$52,030	$13,830	$5,762
Total Value of Operating Costs / (Savings)	($39,968)	($185,657)	($44,917)	($18,715)
Net Impact	**$111,103**	**$551,374**	**$178,913**	**$74,547**
Cost Impact per Unit / SF	*$2,778*	*$2,757*	*$2.98*	*$2.98*
% of Total Costs	*0.66%*	*0.53%*	*0.70%*	*1.05%*

Cool Roofing
Overview

Policy Description

Requirement for residential and non-residential buildings to have 100% of non-mechanical occupied roof space covered with highly reflective roofs, or implement a water capture system, green roof or solar roof.

Calculation Methodology

- Estimate Development Cost
  - Identify non-mechanical roof square feet
  - Apply additional cost per non-mechanical square foot.
- Estimate Operating Cost/Savings
  - There are no additional savings or costs.

Calculation Assumptions

Non-Mechanical Roof Square Feet: 14,380

Additional Cost per Non-Mechanical Square Foot: $5.00

Calculation Example (Prototype 1)

Development Cost

14,380 X $5.00

=

$70,444

Sustainable Materials Costs

Operating Cost/Savings

$0 Operating Savings

=

$70,444 Net Cost

+

$4,639 Financing Costs

Cool Roofing
Development Cost Impact

Prototype Example Image				
Prototype Description	**Garden Style Apartment**	**Podium Apartment**	**Office**	**Industrial**
Total Development Cost Impact	$70,444	$118,095	$142,500	$112,500
Addt'l Financing Costs and Fees	$4,639	$8,970	$9,385	$7,409
Total Value of Operating Costs / (Savings)	$0	$0	$0	$0
Net Impact	**$75,083**	**$127,065**	**$151,885**	**$119,909**
Cost Impact per Unit / SF	*$1,877*	*$635*	*$2.53*	*$4.80*
% of Total Costs	*0.45%*	*0.12%*	*0.59%*	*1.69%*

DarkSky Lighting
Overview

Policy Description
All residential and non-residential outdoor light fixtures must be DarkSky certified.

Calculation Methodology
- Estimate Development Cost
  - Apply an additional hard cost per square foot for DarkSky lighting materials
- Estimate Operating Cost/Savings
  - Limited operating savings or costs

Calculation Assumptions
Additional Hard Cost per SF: $0.25

Building SF: 44,491

Calculation Example (Prototype 1)
Development Cost
$0.25 X 44,491
=
$11,123
Dark Sky Lighting Costs

Operating Cost/Savings
$0 Operating Savings
=
$11,123 Net Cost
+
$733 Financing Costs

DarkSky Lighting
Development Cost Impact

Prototype Example Image				
Prototype Description	**Garden Style Apartment**	**Podium Apartment**	**Office**	**Industrial**
Total Development Cost Impact	$11,123	$51,667	$15,000	$6,250
Addt'l Financing Costs and Fees	$733	$3,924	$988	$412
Total Value of Operating Costs / (Savings)	$0	$0	$0	$0
Net Impact	**$11,855**	**$55,591**	**$15,988**	**$6,662**
Cost Impact per Unit / SF	*$296*	*$278*	*$0.27*	*$0.27*
% of Total Costs	*0.07%*	*0.05%*	*0.06%*	*0.09%*

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EV Chargers on Commercial Meter

Overview

Policy Description

Require EV chargers to be on a separate meter for measuring purposes and lower rates.

Calculation Methodology

- Development Cost
  - Calculate the cost of a commercial meter
- Estimate Operating Cost/Savings
  - There are no future operating Costs or savings

Calculation Assumptions

Commercial Meter Costs: $15,000

Calculation Example (Prototype 1)

Development Cost

$15,000 Commercial Meter Costs

Operating Cost/Savings

$0 Operating Savings

=

$15,000 Net Cost

+

$988 Financing Costs

EV Chargers on Commercial Meter

Development Cost Impact

Prototype Example Image				
Prototype Description	**Garden Style Apartment**	**Podium Apartment**	**Office**	**Industrial**
Total Development Cost Impact	$15,000	$15,000	$15,000	$15,000
Addt'l Financing Costs and Fees	$988	$1,139	$988	$988
Total Value of Operating Costs / (Savings)	$0	$0	$0	$0
Net Impact	**$15,988**	**$16,139**	**$15,988**	**$15,988**
Cost Impact per Unit / SF	*$400*	*$81*	*$0.27*	*$0.64*
% of Total Costs	*0.10%*	*0.02%*	*0.06%*	*0.23%*

Cool Site Surfaces

Overview

Policy Description

50% of non-roof hardscape are required to be highly reflective, highly permeable, vegetated, shaded, or a combination of cool surfaces.

Calculation Methodology

- Determine required cool site square foot
- Estimate Development Cost
  - Apply additional site prep cost per square foot
- Estimate Operating Cost/Savings
  - There are no future savings or costs

Calculation Assumptions

% of Required Cool Site SF: 50%

Site SF less Bldg Footprint: 52,394

Additional Cost per Cool Site SF: $2.00

Calculation Example (Prototype 1)

Development Cost

(50% X 52,394) X $2.00

=

$52,394

Cool Site Costs

Operating Cost/Savings

$0 Operating Savings

=

$52,394 Net Cost

+

$3,451 Financing Costs

Cool Site Surfaces
Development Cost Impact

Prototype Example Image				
Prototype Description	**Garden Style Apartment**	**Podium Apartment**	**Office**	**Industrial**
Total Development Cost Impact	$52,394	$9,680	$96,324	$65,071
Addt'l Financing Costs and Fees	$3,451	$735	$6,344	$4,285
Total Value of Operating Costs / (Savings)	$0	$0	$0	$0
Net Impact	**$55,845**	**$10,415**	**$102,668**	**$69,356**
Cost Impact per Unit / SF	*$1,396*	*$52*	*$1.71*	*$2.77*
% of Total Costs	*0.33%*	*0.01%*	*0.40%*	*0.98%*

Climate Adapted Vegetation

Overview

Policy Description

All vegetation must be drought resistant and native to the Pacific Northwest.

Calculation Methodology

- Development Cost
  - Identify additional cost per square foot to site prep
- Estimate Operating Cost/Savings
  - Calculate annual water savings per unit
  - Estimate value using cap rate

Calculation Assumptions

Additional Site Prep per SF: $0.25

Site SF: 67,224

Annual Operating Savings per Unit: $20

Number of Units: 40

Cap Rate: 5%

Calculation Example (Prototype 1)

Development Cost

$0.25 X 67,224

=

$16,806

Climate Adapted Vegetation Costs

Operating Cost/Savings

($20 X 40) / 5%

=

$16,000 Operating Savings

=

$806 Net Cost

+

$1,107 Financing Costs

Climate Adapted Vegetation

Development Cost Impact

Prototype Example Image				
Prototype Description	**Garden Style Apartment**	**Podium Apartment**	**Office**	**Industrial**
Total Development Cost Impact	$16,806	$13,721	$31,581	$22,518
Addt'l Financing Costs and Fees	$1,107	$1,042	$2,080	$1,483
Total Value of Operating Costs / (Savings)	($16,000)	($13,000)	($30,000)	($20,833)
Net Impact	**$1,913**	**$1,764**	**$3,661**	**$3,167**
Cost Impact per Unit / SF	*$48*	*$9*	*$0.06*	*$0.13*
% of Total Costs	*0.01%*	*0.00%*	*0.01%*	*0.04%*

All Electric Ready

Overview

Policy Description

Requirement for residential and non-residential buildings to be 100% electric capable.

Calculation Methodology

There are no development costs or future operating costs or savings.

Calculation Assumptions

N/A

Calculation Example (Prototype 1)

N/A

All Electric Ready
Development Cost Impact

Prototype Example Image

Prototype Description	**Garden Style Apartment**	**Podium Apartment**	**Office**	**Industrial**
Total Development Cost Impact	$0	$0	$0	$0
Addt'l Financing Costs and Fees	$0	$0	$0	$0
Total Value of Operating Costs / (Savings)	$0	$0	$0	$0
Net Impact	**$0**	**$0**	**$0**	**$0**
Cost Impact per Unit / SF	*$0*	*$0*	*$0.00*	*$0.00*
% of Total Costs	*0.00%*	*0.00%*	*0.00%*	*0.00%*

Green Building Policy Net Cost Impact

	Prototype 1 **Garden-Style Apartment**			Prototype 2 **Podium Apartment**			Prototype 3 **Office**			Prototype 4 **Industrial**		
Prototype Example Image												
	Total Baseline Cost	Per Unit Cost	# of Units	Total Baseline Cost	Per Unit Cost	# of Units	Total Baseline Cost	Per SF Cost	Total SF	Total Baseline Cost	Per SF Cost	Total SF
	$16,735,119	$418,378	40	$104,068,456	$520,342	200	$25,566,724	$426	60,000	$7,078,601	$283	25,000

Green Building Policy	**Total Cost Impact**	**Per Unit Cost**	**% of Baseline**	**Total Cost Impact**	**Per Unit Cost**	**% of Baseline**	**Total Cost Impact**	**Per SF Cost**	**% of Baseline**	**Total Cost Impact**	**Per SF Cost**	**% of Baseline**
Bike parking	$447,184	$11,180	2.67%	$2,429,809	$12,149	2.33%	$130,425	$2.17	0.51%	$8,400	$0.34	0.12%
Lower Carbon Building Materials	$47,964	$1,199	0.29%	$1,936,721	$9,684	1.86%	$719,454	$11.99	2.81%	$91,042	$3.64	1.29%
Indoor Temperature Control	$217,394	$5,435	1.30%	$1,020,639	$5,103	0.98%	$243,830	$4.06	0.95%	$195,732	$7.83	2.77%
Bird Friendly Design	$342,474	$8,562	2.05%	$917,667	$4,588	0.88%	$508,044	$8.47	1.99%	$96,220	$3.85	1.36%
Improved Energy Efficiency	$178,372	$4,459	1.07%	$839,798	$4,199	0.81%	$204,379	$3.41	0.80%	$56,586	$2.26	0.80%
Air Filtration Standard	$173,752	$4,344	1.04%	$831,911	$4,160	0.80%	$174,879	$2.91	0.68%	$279,464	$11.18	3.95%
Renewable Energy Generation	$111,103	$2,778	0.66%	$551,374	$2,757	0.53%	$178,913	$2.98	0.70%	$74,547	$2.98	1.05%
Sustainable Building Materials	$137,923	$3,448	0.82%	$402,322	$2,012	0.39%	$212,152	$3.54	0.83%	$52,768	$2.11	0.75%
Cool Roofing	$75,083	$1,877	0.45%	$127,065	$635	0.12%	$151,885	$2.53	0.59%	$119,909	$4.80	1.69%
Dark Sky Lighting	$11,855	$296	0.07%	$55,591	$278	0.05%	$15,988	$0.27	0.06%	$6,662	$0.27	0.09%
EV Chargers on Commercial Meter	$15,988	$400	0.10%	$16,139	$81	0.02%	$15,988	$0.27	0.06%	$15,988	$0.64	0.23%
Cool Site Surfaces	$55,845	$1,396	0.33%	$10,415	$52	0.01%	$102,668	$1.71	0.40%	$69,356	$2.77	0.98%
Climate Adapted Vegetation	$1,913	$48	0.01%	$1,764	$9	0.00%	$3,661	$0.06	0.01%	$3,167	$0.13	0.04%
All Electric Ready	$0	$0	0.00%	$0	$0	0.00%	$0	$0.00	0.00%	$0	$0.00	0.00%
Total Cost Impact	**$1,816,848**	**$45,421**	**10.9%**	**$9,141,217**	**$45,706**	**8.8%**	**$2,662,263**	**$44.37**	**10.4%**	**$1,069,842**	**$42.79**	**15.1%**

Potential City Incentives to Offset Cost Impacts

Current Proposed City Incentives

Incentive	Incentive Description
Building Permit Fee Rebate	Rebates ranging from $1,000 to $25,000 on building permit fees
Expedited Permitting	Expedited land use review, engineering review, or building review
SDC and Impact Fee Deferral	Deferral of SDC or impact fees until final building inspection
SDC and Impact Fee Waiver	Full waiver of SDC or impact fees
12-Foot Height Bonus	A 12-foot heigh bonus over the height limit unless limited by the FAA

Other *Potential* Incentives

Incentive	Incentive Description
TIF Infrastructure Financing	Using tax increment financing to fund street frontage and utility upgrades
Construction Sales Tax Rebate	Rebate local portion of construction sales tax
Design Guidelines Waiver	Ability for projects to opt-out of design review and/or design guidelines
Land Donation	Donation of publicly-owned land
Infrastructure Fee Payment	An in-lieu fee payment for street frontage and utility upgrades
Offsite Solar Generation Fee	An In-lieu fee payment to opt out of on site solar to pay for off-site solar

Building Permit Fee Rebate

Incentive Description

A partial rebate of building permit fees

- 10% rebate on fees below $10,000, maximum of $1,000
- 20% rebate on fees above $10,000, maximum of $5,000
- 20% rebate on fees below $10,000, maximum of $2,000
- 25% rebate on fees above $20,000, maximum of $25,000

Calculation Methodology

- Assumes maximum value of rebate

Example Calculation

$10,000 Building Permit Fees
X
10% Rebate
=
$1,000 Building Permit Rebate

Expedited Permitting

Incentive Description

Prioritization of permits that follow the Green Building Policy for land use review, engineering review, or building review

Calculation Methodology

- One review process will expedite permitting by two months
- Reduces interest expense on land costs and soft costs by two months
  - 60% loan to cost
  - 6.5% interest rate
  - 60% drawdown factor

Example Calculation

$3.3M of land and soft costs
X
60% loan to cost
X
60% drawdown factor
X
6.5% interest / 12 months
X
2 months
=
$13,213 Expedited Permit Value

SDC and Impact Fee Deferral

Incentive Description

Deferral of system development charges until final building inspection

Calculation Methodology

- Deferral saves 12 months of interest expense on the SDC or impact fee
  - 60% loan to cost
  - 6.5% interest rate

Example Calculation

$110,638 Water and Sewer SDC
X
60% loan to cost
X
6.5% interest / 12
X
12 months
=
$6,561 SDC Deferral Value

SDC and Impact Fee Waiver

Incentive Description

Full waiver of system development charges and impact fees

Calculation Methodology

- Full rebate of SDC and impact fees

Example Calculation

$110,638 Water and Sewer SDC Waiver Value

12-Foot Height Bonus

Incentive Description

12-foot height bonus above height limit for projects that follow the Green Building Policy

Calculation Methodology

- The number of added units increases land value by the market land value per unit

Example Calculation

$20,000 of Land Value per Unit
X
13 Added Units
=
$266,667 12-Foot Height Bonuse Value

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Green Building Policy Incentive Value

	Prototype 1 **Garden-Style Apartment**	Prototype 2 **Podium Apartment**	Prototype 3 **Office**	Prototype 4 **Industrial**
Prototype Example Image				

Green Building Incentives												
	Total Value	**Per Unit Value**	**% of Baseline**	**Total Value**	**Per Unit Value**	**% of Baseline**	**Total Value**	**Per SF Value**	**% of Baseline**	**Total Value**	**Per SF Value**	**% of Baseline**
City Tier One Incentives												
Expedited Permitting	$13,213	$330	0.08%	$73,932	$370	0.07%	$21,180	$0.35	0.08%	$7,844	$0.31	0.11%
10% Building Permit Fee Rebate ($1,000 Max)	$1,000	$25	0.01%	$1,000	$5	0.00%	$1,000	$0.02	0.00%	$1,000	$0.04	0.01%
20% Building Permit Fee Rebate ($5,000 Max)	$5,000	$125	0.03%	$5,000	$25	0.00%	$5,000	$0.08	0.02%	$5,000	$0.20	0.07%
City Tier Two Incentives												
20% Building Permit Fee Rebate ($2,000 Max)	$2,000	$50	0.01%	$2,000	$10	0.00%	$2,000	$0.03	0.01%	$2,000	$0.08	0.03%
25% Building Permit Fee Rebate ($25,000 Max)	$25,000	$625	0.15%	$25,000	$125	0.02%	$25,000	$0.42	0.10%	$25,000	$1.00	0.35%
SDC Deferral	$4,315	$108	0.03%	$28,723	$144	0.03%	$6,650	$0.11	0.03%	$6,650	$0.27	0.09%
Park Fee Deferral	$6,561	$164	0.04%	$49,210	$246	0.05%	N/A	N/A	N/A	N/A	N/A	N/A
Transportation Fee Deferral	$2,039	$51	0.01%	$19,896	$99	0.02%	$7,283	$0.12	0.03%	$1,172	$0.05	0.02%
12 Foot Height Bonus	$266,667	$6,667	1.59%	$580,000	$2,900	0.56%	N/A	N/A	N/A	N/A	N/A	N/A

Other *Potential* Incentives

Incentive	Incentive Description
Low Impact on Development (0% to 0.5%)	
Offsite Solar Generation Fee	An In-lieu fee payment to opt out of on site solar to pay for off-site solar
Moderate Impact on Development (0.5% to 1.5%)	
SDC and Impact Fee Waiver	Full waiver of SDC or impact fees
Construction Sales Tax Rebate	Rebate local portion of construction sales tax
Design Guidelines Waiver	Ability for projects to opt-out of design review and/or design guidelines
Infrastructure Fee Payment	An in-lieu fee payment for street frontage and utility upgrades
High Impact on Development (1.5% and Above)	
On- and Off-Site Infrastructure Support	Using tax increment financing to fund street frontage and utility upgrades
Land Donation	Donation of publicly-owned land

Key Findings and Recommendations

Key Findings

- All Green Building Policies would add an estimated **8 to 11 percent to development costs for multifamily residential developments** and **10 to 15 percent for non-residential development**
- Certain Green Building Policies have more pronounced impact on development costs, while others have limited impact.
- Majority of the City Incentives are insufficient to off-set all Green Building Policies, but may be used to off-set a limited number of policies
- Given current state of development feasibility, increase in development costs driven by new City policies will further inhibit new construction or will result in new development projects with higher rental rates that are unaffordable to existing residents/businesses

Recommendations

- City can identify other mechanisms to off-set all Green Building Policies, including those identified as “other possible incentives”
- City could explore requiring certain low-cost Green Building Policies, while incentivizing others
- City could provide resources to the development community that would reduce the impact of these Green Building Policies
  - Bird-Friendly Design Education
  - Research and Collaboration with low-carbon and sustainable product manufacturers
- City could explore modifications to the draft Green Building Policies to add flexibility that reduces development cost while still achieving the desired outcomes

Appendix C

Illustrative Draft Code Language
prepared by SSG

DISCLAIMER: This draft code language provided is intended to illustrate the intent and technical direction of the proposed Vancouver amendments and is included for informational purposes only. It demonstrates the types of standards and specifications contemplated, not to serve as final code language for adoption. The final code language to implement the Vancouver amendments will be developed through a subsequent code-writing process and reviewed for approval at a future date and will include a comprehensive public review and engagement process in 2026 if the Green Building Program is approved by the Vancouver City Council.

8/23/2024 Proposed Amendments to VMC 17.09

Chapter 17.09
ENERGY CODE

Sections:

17.09.010	**Adoption of Washington State Energy Code.**
17.09.020	**Washington State Energy Code—Commercial Scope**
17.09.030	**Vancouver Amendments to the 2021 Washington State Energy Code – Commercial, Intent and Applicability**
17.09.100	**Opaque Thermal Envelope Insulation Component Minimum Requirements, R-Value Method -- Table C402.1.3**
17.09.110	**Opaque Thermal Envelope Assembly Maximum Requirements, U-Factor Method -- Table C402.1.4**
17.09.120	**Fenestration Requirements (C402.4)**
17.09.130	**Reserved**
17.09.140	**Reserved**
17.09.150	**Dimming Controls**
17.09.160	**Interior Lighting Power Allowances – Building Area Method (Table C405.4.2(1)**
17.09.170	**Interior Lighting Power Allowances—Space by Space Method (Table C405.4.2(2)**
17.09.180	**Electric Power at Gas-fired Commercial Cooking Appliances (C405.14.1)**
17.09.190	**Efficiency Measure Credit Requirements -- Table C406.2(1)**
17.09.200	**Building Performance Factors (BPF) to be use with Section C407.3**
17.09.205	**Limits on Substandard Building Envelopes (C407.3.1)**
17.09.210	**Commissioning Process and Completion Requirements (C408.1.4.3)**
17.09.220	**Renewable Energy (C411)**
17.09.230	**Optional Compliance Path – Target Performance Path (SEC C401.5)**

17.09.010 Adoption of Washington State Energy Code.

The city adopts, by reference, as its energy code the currently adopted Washington State Energy Code, which is mandated under RCW 19.27A, and adopts rules promulgated under WAC Chapter 51-11.

(Ord. M-2261 § 2.14, 1981; Ord. M-2429 § 15, 1983; Ord. M-2860 § 2, 1990; Ord. M-3016 § 8, 1992; Ord. M-3200

§ 10, 1995; Ord. M-3660 § 5; Ord. M-4165 § 6, 06/06/2016; Ord. M-4052 §10, 06/03/2013; Ord. M-3863 § 11, 01/28/2008; Ord. M-3660 § 5, 07/12/2004; Ord. M-3378, 07/06/1998)

17.09.020 Washington State Energy Code – Commercial Scope

A. Unless explicitly amended in Section 17.09.030 and Sections 17.09.100 through 17.09.230, all commercial buildings and their building sites shall meet all applicable requirements of the Washington State Energy Code – Commercial.

17.09.030 Vancouver Amendments to the 2021 Washington State Energy Code -- Commercial, Intent and Applicability

A. Sections 17.09.100 through 17.09.230 are the City of Vancouver Commercial Energy Code amendments to the 2021 edition of the Washington State Energy Code – Commercial.

B. These amendments apply to commercial buildings and their building sites permitted under the 2021 edition of the Washington State Energy Code – Commercial and submitted for permit review after [Month DD,YYYY].

C. The intent of the Vancouver Commercial Energy Code amendments is to increase energy conservation, increase the generation of on-site renewable energy, reduce greenhouse gas emissions from building operations, and allow multiple pathways for compliance. This Chapter is not intended to abridge safety, health, or environmental requirements contained in other applicable codes or ordinances.

D. If a portion of this Chapter is held to be illegal or void, such a decision shall not affect the validity of the remainder of this Chapter.

17.09.100 Opaque Thermal Envelope Insulation Component Minimum Requirements, R-Value Method (Table C402.1.3)

A. Table C402.1.3 of the 2021 edition of the Washington State Energy Code – Commercial is not adopted and the following is substituted:

Table C402.1.3
Opaque Thermal Envelope Insulation Component Minimum Requirements, R-value Method [a, ((i)) j]

For SI: 1 inch = 25.4 mm. ci = Continuous insulation. NR = No requirement.

CLIMATE ZONE	5 AND MARINE 4	
	All Other	Group R
Roofs		
Insulation entirely above deck	R-38ci	R-38ci
Metal buildings[b]	R-25 + R-22 LS	R-25 + R-22 LS
Attic and other	R-49	R-49
Walls, Above Grade[i]		
Mass[h]	((~~R-9.5cic~~)) Exterior: R-16 c.i. Interior: R-13 + R-6 ci wood stud, or R-13 + R-10 ci metal stud	((~~R-13.3ci~~)) Exterior: R-16 c.i. Interior: R-13 + R-6 ci wood stud, or R-13 + R-10 ci metal stud
Interior:		
R-13 + R-6 ci wood stud, or		
R-13 + R-10 ci metal stud	Exterior: R-16 c.i.	
Interior:		
R-13 + R-6 ci wood stud, or		
R-13 + R-10 ci metal stud		
Mass transfer deck slab edge	N/R	N/R
Metal buildings	R-13 + R-14ci	R-13 + R-14ci
Steel framed	R-13 + R-10ci	R-19 + R-8.5ci
Wood framed and other	R-13 + R-7.5ci std or R-20 + R-3.8ci std or R-25 std	R-13 + R-7.5ci std or R-20 + R-3.8ci std or R-25 std
Walls, Below Grade		
Below-grade wall[d,h]	((~~Same as above grade~~)) Exterior: R-10 ci Interior: R-19 wood stud, or R-13 + R-6 ci metal stud	((~~Same as above grade~~)) Exterior: R-10 ci Interior: R-19 wood stud, or R-13 + R-6 ci metal stud
Floors		
Mass[f]	R-30ci	R-30ci
Joist/framing	Steel frame: R-38 +R-10 ci Wood frame: R-38	Steel frame: R-38 +R-10 ci Wood frame: R-38
Slab-on-Grade Floors		
Unheated slabs	R-10 for 24" below	R-10 for 24" below
Heated slabs	R-10 perimeter & under entire slab	R-10 perimeter & under entire slab

For SI: 1 inch = 25.4 mm. ci = Continuous insulation. NR = No requirement.
LS = Liner system—A continuous membrane installed below the purlins and uninterrupted by framing members. Uncompressed, unfaced insulation rests on top of the membrane between the purlins.

a Assembly descriptions can be found in Chapter 2 and Appendix A.

b Where using *R*-value compliance method, a thermal spacer block with minimum thickness of 1/2-inch and minimum *R*-value of R-3.5 shall be provided, otherwise use the *U*-factor compliance method in Table C402.1.4.

c (Reserved) **((Exception:** ~~Integral insulated concrete block walls complying with ASTM C90~~

~~with all cores filled and meeting both of the following: At least 50 percent of cores must be filled with vermiculite or equivalent fill insulation; and~~
~~The building thermal envelope encloses one or more of the following uses: Warehouse (storage and retail), gymnasium, auditorium, church chapel, arena, kennel, manufacturing plant, indoor swimming pool, pump station, water and waste water treatment facility, storage facility, storage area, motor vehicle service facility. Where additional uses not listed (such as office, retail, etc.) are contained within the building, the exterior walls that enclose these areas may not utilize this exception and must comply with the appropriate mass wall R-value from Table C402.1.3/U-factor from Table C402.1.4.~~))

d Where heated slabs are below grade, they shall comply with the insulation requirements for heated slabs.

e (Reserved)

f "Mass floors" shall include floors weighing not less than:

1. 35 pounds per square foot of floor surface area; or
2. 25 pounds per square foot of floor surface area where the material weight is not more than 120 pounds per cubic foot.

g Component performance in accordance with Section C402.1.5 shall be required for buildings with a mass transfer deck slab.

h Peripheral edges of intermediate concrete floors are included in the above-grade mass wall category and therefore must be insulated as above-grade mass walls unless they meet the definition of Mass Transfer Deck Slab Edge. The area of the peripheral edges of concrete floors shall be defined as the thickness of the slab multiplied by the perimeter length of the edge condition. See Table A103.3.7.2 for typical default *U*-factors for above-grade slab edges and foot- note c for typical conditions of above-grade slab edges.

i Where the total area of through-wall mechanical equipment is greater than 1 percent of the opaque *above-grade wall area*, use of the *R*-value method is not permitted. See Section C402.1.4.3.

j For roof, wall or floor assemblies where the proposed assembly would not be *continuous insulation*, alternate nominal *R*-value compliance options for assemblies with isolated metal fasteners that penetrate otherwise *continuous insulation* are as shown in columns B and C of Table C402.1.3(i):

B. Table C402.1.3(i) of the 2021 edition of the Washington State Energy Code – Commercial is not adopted and the following is substituted:

Table C402.1.3(i)
Continuous Insulation Equivalents

Column A	Column B	Column C
Assemblies with continuous insulation (see definition)	**Alternate option for assemblies with metal penetrations, greater than 0.04% but less than 0.08%**	**Alternate option for assemblies with metal penetrations, greater than or equal to 0.08% but less than 0.12%**
R-9.5ci	R-11.9ci	R-13ci
R-11.4ci	R-14.3ci	R-15.7ci
R-13.3ci	R-16.6ci	R-18.3ci
R-15.2ci	R-19ci	R-21ci
R-30ci	R-38ci	R-42ci
R-38ci	R-48ci	R-53ci
R-13 + R-7.5ci	R-13 + R-9.4ci	R-13 + R-10.3ci
R-13 + R-10ci	R-13 + R-12.5ci	R-13 + R-13.8ci
R-13 + R-12.5ci	R-13 + R-15.6ci	R-13 + R-17.2ci
R-13 + R-13ci	R-13 + R-16.3ci	R-13 + R-17.9ci

R-19 + R-8.5ci	R-19 + R-10.6ci	R-19 + R-11.7ci
R-19 + R-14ci	R-19 + R-17.5ci	R-19 + R-19.2ci
R-19 + R-16ci	R-19 + R-20ci	R-19 + R-22ci
R-20 + R-3.8ci	R-20 + R-4.8ci	R-20 + R-5.3ci
R-21 + R-5ci	R-21 + R-6.3ci	R-21 + R-6.9ci

Notes for Table C402.1.3(i)

These alternate nominal *R*-value compliance options are allowed for projects complying with all of the following:

1a. The ratio of the cross-sectional area, as measured in the plane of the surface, of metal penetrations of otherwise continuous insulation to the opaque surface area of the assembly is greater than 0.0004 (0.04%), but less than 0.0008 (0.08%), for use of Column B equivalents, and greater than or equal to

0.008 (0.08%), but less than 0.0012 (0.12%), for use of Column C equivalents.

1b. Where all metal penetrations are stainless steel, Column B is permitted to be used for penetrations greater than 0.12%, but less than 0.24% of opaque surface area, and Column C is permitted to be used for penetrations greater than or equal to 0.24%, but less than 0.48% of opaque surface area.

2. The metal penetrations of otherwise continuous insulation are isolated or discontinuous (e.g., brick ties or other discontinuous metal attachments, offset brackets supporting shelf angles that allow insulation to go between the shelf angle and the primary portions of the wall structure). No continuous metal elements (e.g., metal studs, z-girts, z-channels, shelf angles) penetrate the otherwise continuous portion of the insulation.
3. Building permit drawings shall contain details showing the locations and dimensions of all the metal penetrations (e.g., brick ties or other discontinuous metal attachments, offset brackets, etc.) of otherwise continuous insulation. In addition, calculations shall be provided showing the ratio of the cross- sectional area of metal penetrations of otherwise continuous insulation to the overall opaque wall area.
   For other cases where the proposed assembly is not continuous insulation, see Section C402.1.4 for determination of *U*-factors for assemblies that include metal other than screws and nails.

17.09.110 Opaque Thermal Envelope Assembly Maximum Requirements, U-Factor Method (Table C402.1.4)

A. Table C402.1.4 of the 2021 edition of the Washington State Energy Code – Commercial is not adopted and the following is substituted:

Table C402.1.4
Opaque Thermal Envelope Requirements[a,f]

CLIMATE ZONE	5 AND MARINE 4	
	All Other	Group R
Roofs		
Insulation entirely above deck	U-0.027	U-0.027
Metal buildings	((~~U-0.031~~)) U-0.027	((~~U-0.031~~)) U-0.027

Attic and other	U-0.021	U-0.021
Joist or single rafter	U-0.027	U-0.027
Walls, Above Grade[k]		
Mass[g]	((~~U-0.104[d]~~)) U-0.057	((~~U-0.078~~)) U-0.057
Mass transfer deck slab[j]	U-0.20	U-0.20
Slab penetrating thermal envelope wall[h]	U-0.10	U-0.10
Metal building	U-0.050	U-0.050
Steel framed	U-0.055	U-0.055
Wood framed and other	U-0.051	U-0.051
Walls, Below Grade		
Below-grade wall[b, g]	((~~Same as above grade~~)) U-0.070	((~~Same as above grade~~)) U-0.070
Floors		
Mass[e]	U-0.031	U-0.031
Joist/framing	((~~U-0.029~~)) U-0.029 steel joist U-0.025 wood joist	((~~U-0.029~~)) U-0.029 steel joist U-0.025 wood joist
Concrete column or concrete wall penetrating thermal envelope floor[l]	U-0.55	U-0.55
Concrete slab floor directly above an electrical utility vault	N.R.	N.R.
Slab-on-Grade Floors		
Unheated slabs	F-0.54	F-0.54
Heated slabs[c]	F-0.55	F-0.55
Opaque Doors		
Nonswinging door	U-0.31	U-0.31
Swinging door[h]	U-0.37	U-0.37
Garage door <14% glazing	U-0.31	U-0.31
Garage door ≥14% and <50% glazing[i]	U-0.34	U-0.34

a Use of opaque assembly *U*-factors, *C*-factors, and *F*-factors from Appendix A is required unless otherwise allowed by Section C402.1.4.

b (Reserved) ((~~Where heated slabs are below grade, they shall comply with the *F* factor requirements for heated slabs.~~))

c Heated slab *F*-factors shall be determined specifically for heated slabs. Unheated slab factors shall not be used.

d (Reserved) **((Exception:** ~~Integral insulated concrete block walls complying with ASTM C90 with all cores filled and meeting both of the following: At least 50 percent of cores must be filled with vermiculite or equivalent fill insulation; and~~
~~The building thermal envelope encloses one or more of the following uses: Warehouse (storage and retail), gymnasium, auditorium, church chapel, arena, kennel, manufacturing plant, indoor swimming pool, pump station, water and waste water treatment facility, storage facility, storage area, motor vehicle service facility. Where additional uses not listed (such as office, retail, etc.) are contained within the building, the exterior walls that enclose these areas may not utilize this exception and must comply with~~ the appropriate mass wall R-value from Table C402.1.3/U-factor from Table C402.1.4.))

e "Mass floors" shall include floors weighing not less than:
1. 35 pounds per square foot of floor surface area; or
2. 25 pounds per square foot of floor surface area where the material weight is not more than 120 pounds per cubic foot.

f Opaque assembly U-factors based on designs tested in accordance with ASTM C1363 shall be permitted. The R-value of continuous insulation shall be permitted to be added or subtracted from the original test design.

g Peripheral edges of intermediate concrete floors are included in the above-grade mass wall category and therefore must be insulated as above-grade mass walls unless they meet the definition of Mass Transfer Deck Slab. The area of the peripheral edges of concrete floors shall be defined as the thickness of the slab multiplied by the perimeter length of the edge condition. See Table A103.3.7.2 for typical default U-factors for above-grade slab edges and footnote c for typical conditions of above-grade slab edges.

h Swinging door U-factors shall be determined in accordance with NFRC-100.

i Garage doors having a single row of fenestration shall have an assembly U-factor less than or equal to 0.44, provided that the fenestration area is not less than 14 percent and not more than 25 percent of the total door area.

j Component performance in accordance with Section C402.1.5 shall be required for buildings with a mass transfer deck slab. A mass transfer deck, due to its configuration, is not insulated. The table value (U-0.20) shall be used as the baseline value for component performance or total building performance path calculations. For the proposed value, the appropriate value from Table ((A104.3.7.2)) A103.3.7.2 shall be used.

k Through-wall mechanical equipment subject to Section C402.1.4.3 shall be calculated at the U-factor defined in Section C402.1.4.3. The area-weighted U- factor of the wall, including through-wall mechanical equipment, shall not exceed the value in the table.

l Value applies to concrete columns and concrete walls that interrupt mass floor insulation, but not to perimeter walls or columns separating interior conditioned space from exterior space.

17.09.120 Fenestration Requirements (C402.4)

A. Section C402.4 of the 2021 edition of the Washington State Energy Code – Commercial is not adopted and the following is substituted:

C402.4 Fenestration. Fenestration shall comply with Sections C402.4 through C402.4.4 and Table C402.4. Daylight responsive controls shall comply with this section and Section C405.2.5.

EXCEPTION:

For prescriptive envelope compliance, single-pane glazing is permitted for security purposes and for revolving doors, not to exceed 1 percent of the gross exterior wall area. Where Section C402.1.5, component performance alternative, is used, the single glazing shall be included in the percentage of the total glazing area, U-factor and SHGC requirements.

Table C402.4

Building Envelope Fenestration Maximum *U*-factor and SHGC Requirements[f]

CLIMATE ZONE	5 AND MARINE 4

	***U*-factor for Class AW windows rated in accordance with AAMA/CSA101/I.S.2/A440, vertical curtain walls and site-built fenestration products[a]**	
Fixed[b] *U*-factor	U-0.34	
Operable[c] *U*-factor	U-0.36	
***Entrance doors*[d]**		
U-factor	U-0.60	
	***U*-factor for all other vertical fenestration**	
Fixed *U*-factor	U-0.26	
Operable or mulled windows with fixed and operable sections *U*-factor	U-0.28	
SHGC for all vertical fenestration		
	Fixed	Operable
PF < 0.2	0.38	0.33
0.2 ≤ PF < 0.5	0.46	0.40
PF ≥ 0.5	0.61	0.53
Skylights		
U-factor	((~~U-0.50~~)) U-0.45	
SHGC	((~~0.35~~)) 0.32	

a *U*-factor and SHGC shall be rated in accordance with NFRC 100.
b "Fixed" includes curtain wall, storefront, picture windows, and other fixed windows.
c "Operable" includes openable fenestration products other than "entrance doors," and includes only the operable portions of multi-pane assemblies.
d "Entrance door" includes glazed *swinging* entrance doors and *automatic* glazed sliding *entrance doors*. Other doors which are not entrance doors, including manually operated sliding glass doors, are considered "operable."
e Reserved.
f Fenestration that is entirely within the conditioned space or is between conditioned and other enclosed space is exempt from solar heat gain coefficient requirements and not included in the SHGC calculation.

B. **Informative Note:** The category at the top of Table C402.4, labeled "*U-factor for Class AW windows rated in accordance with AAMA/CSA101/I.S.2/A440, vertical curtain walls and site-built fenestration products*," includes *curtain wall*, storefront, ribbon wall, window wall, and similar site-assembled systems, but does not include typical punched- opening manufactured windows except for "Class AW" windows. Class AW is the AAMA designation for windows typically used in mid-rise and high-rise buildings to resist high wind and water intrusion loads.

17.09.150 Dimming Controls

A. In addition to complying with Section C405.2.5.1 of the Washington State Energy Code – Commercial, comply with the following dimming requirements:

B. C405.2.5.1.1 Dimming. *Daylight responsive controls* shall be configured to automatically reduce the power of *general lighting* in the *daylight zone* in response to available daylight, while maintaining *uniform illumination* in the space through:

1. Continuous dimming using dimming ballasts/dimming drivers and daylight-

sensing *automatic* controls. The system shall reduce lighting power continuously to less than ((~~15~~)) 10 percent of rated power at maximum light output.

17.09.160 Interior Lighting Power Allowances – Building Area Method (Table C405.4.2(1)

A. Table C405.4.2(1) of the 2021 edition of the Washington State Energy Code – Commercial is not adopted and the following is substituted:

Table C405.4.2(1)
Interior Lighting Power Allowances – Building Area Method

Building Area Type	((~~LPD (w/ft²)~~	LPD (w/ft²)
Automotive facility	~~0.64~~	0.69
Convention center	~~0.64~~	0.61
Court house	~~0.79~~	0.71
Dining: Bar lounge/leisure	~~0.79~~	0.70
Dining: Cafeteria/fast food	~~0.72~~	0.67
Dining: Family	~~0.71~~	0.62
Dormitory ((~~a, b~~))	~~0.46~~	0.49
Exercise center	~~0.67~~	0.68
Fire station ((~~a~~))	~~0.54~~	0.53
Gymnasium	~~0.75~~	0.71
Health care clinic	~~0.70~~	0.77
Hospital ((~~a~~))	~~0.84~~	0.92
Hotel/motel ((~~a, b~~))	~~0.56~~	0.50
Library	~~0.83~~	0.79
Manufacturing facility	~~0.82~~	0.78
Motion picture theater	~~0.44~~	0.41
Multifamily[c]	~~0.41~~	0.44
Museum	~~0.55~~	0.53
Office	~~0.64~~	0.59
Parking garage	~~0.14~~	0.16
Penitentiary	~~0.65~~	0.65
Performing arts theater	~~0.84~~	0.78
Police station	~~0.66~~	0.59
Post office	~~0.65~~	0.61
Religious building	~~0.67~~	0.63
Retail	~~0.84~~	0.74
School/university	~~0.70~~	0.67
Sports arena	~~0.62~~	0.69
Town hall	~~0.69~~	0.64
Transportation	~~0.50~~	0.53
Warehouse	~~0.40~~	0.43

Workshop	~~0.91~~))	0.82

a. Where sleeping units are excluded from lighting power calculations by application of Section R404.1, neither the area of the sleeping units nor the wattage of lighting in the sleeping units is counted.
b. Where dwelling units are excluded from lighting power calculations by application of Section R404.1, neither the area of the dwelling units nor the wattage of lighting in the dwelling units is counted.
c. Dwelling units are excluded. Neither the area of the dwelling units nor the wattage of lighting in the dwelling units is counted.

17.09.170 Interior Lighting Power Allowances – Space by Space Method (Table C405.4.2(2)

A. Table C405.4.2(2) of the 2021 edition of the Washington State Energy Code – Commercial is not adopted and the following is substituted:

Space by Space Method
(Table C405.4.2(2)

Common Space-by-Space Types[a]	((~~LPD (w/ft²)~~	LPD (w/ft²)~~)~~
Atrium - Less than 20 feet in height	~~0.39~~	0.30
Atrium - 20 to 40 feet in height	~~0.48~~	0.39
Atrium - Above 40 feet in height	~~0.60~~	0.48
Audience/seating area - Permanent		
In an auditorium	~~0.61~~	0.54
In a gymnasium	~~0.23~~	0.22
In a motion picture theater	~~0.27~~	0.26
In a penitentiary	~~0.67~~	0.56
In a performing arts theater	~~1.16~~	1.04
In a religious building	~~0.72~~	0.68
In a sports arena	~~0.33~~	0.26
Otherwise	~~0.23~~	0.22
Banking activity area~~((n))~~[i]	~~0.61~~	
Breakroom (see lounge/breakroom)		
Classroom/lecture hall/training room		
In a penitentiary	~~0.89~~	0.74
Otherwise~~((m))~~[h]	~~0.71m~~	0.68
Computer room, *data center*	~~0.94~~	0.71
Conference/meeting/multipurpose	~~0.97~~	0.84
Copy/print room	~~0.31~~	0.53
Corridor		
In a facility for the visually impaired (and not used primarily by the staff)[b]	~~0.71~~	0.71
In a hospital	~~0.71~~	0.61
Otherwise[c, k]	~~0.41~~	0.42
Courtroom[c]	~~1.20~~	1.03

Dining area		
In a penitentiary	~~0.42~~	0.35
In a facility for the visually impaired (and not used primarily by the staff)[b]	~~1.27~~	1.22
In a bar/lounge or leisure dining~~((n))~~ [i]	~~0.86~~	0.72
In cafeteria or fast food dining	~~0.40~~	0.34
In a family dining area[n]	~~0.60~~	0.49
Otherwise	~~0.43~~	0.40
Electrical/mechanical	~~0.43~~	0.64
Emergency vehicle garage	~~0.52~~	0.48
Food preparation	~~1.09~~	1.13
Laboratory		
In or as a classroom	~~1.11~~	1.00
Otherwise	~~1.33~~	1.14
Laundry/washing area	~~0.53~~	0.48
Loading dock, interior	~~0.88~~	0.83
Lobby [c]		
In a facility for the visually impaired (and not used primarily by the staff)[b]	~~1.69~~	1.44
For an elevator	~~0.65~~	0.61
In a hotel	~~0.51~~	0.46
In a motion picture theater	~~0.23~~	0.19
In a performing arts theater	~~1.25~~	1.14
Otherwise	~~0.84~~	0.76
Locker room	~~0.52~~	0.41
Lounge/breakroom~~((n))~~ [i]		
In a health care facility~~((n))~~ [c, i]	~~0.42~~	0.77
Otherwise~~((n))~~ [i]	~~0.59~~	0.52
Office		
Enclosed	~~0.74~~	0.69
Open plan	~~0.61~~	0.53
Parking area, interior	~~0.15~~	0.10
Pharmacy area	~~1.66~~	1.59
Restroom		
In a facility for the visually impaired (and not used primarily by the staff) [b]	~~1.26~~	0.96
Otherwise~~((n))~~ [i]	~~0.63~~	0.70
Sales area	~~1.05~~	0.81
Seating area, general	~~0.23~~	0.20
((Stairway (see space containing stairway)))		
Security screening general area		0.64
Security screening in transportation facilities		0.93
Security screening transportation waiting area		0.56
Stairwell~~((n))~~ [c, i]	~~0.49~~	0.45
Storage room		
< 50 ft^2		0.47
50-100 ft^2		
All other storage	~~0.38~~	0.33

Vehicular maintenance	~~0.60~~	0.56
Workshop	~~1.26~~	1.11
Automotive (see vehicular maintenance)		
Convention center - Exhibit space	~~0.61~~	0.48
Facility for the visually impaired [b]		
In a chapel (and not used primarily by the staff) [b]	~~0.70~~	0.58
In a recreation room (and not used primarily by the staff) [b]	~~1.77~~	1.20
((Fire stations [g] Sleeping quarters))	~~0.23~~	
Gaming establishments		
High limits game		1.60
Slots		0.51
Sportsbook		0.78
Table games		1.04
Gymnasium/fitness center		
In an exercise area	~~0.90~~	0.78
In a playing area	~~0.85~~	0.78
Health care facility [c, i]		
In an exam/treatment room	~~1.40~~	1.33
In an imaging room	~~0.94~~	0.94
In a medical supply room	~~0.62~~	0.56
In a nursery	~~0.92~~	0.87
In a nurse's station	~~1.17~~	1.07
In an operating room	~~2.26~~	2.26
In a physical therapy room	~~0.91~~	0.82
In a recovery room	~~1.25~~	1.18
In a telemedicine room		1.44
Library		
In a reading area((n)) [i]	~~0.96~~	0.82
In the stacks	~~1.10~~	1.12
Manufacturing facility In a detailed manufacturing area	~~0.80~~	0.71
In an equipment room	~~0.76~~	0.69
In an extra high bay area (greater than 50-foot floor-to-ceiling height)	~~1.42~~	1.29
In a high bay area (25 - 50-foot floor-to-ceiling height)	~~1.24~~	1.18
In a low bay (< 25-foot floor-to-ceiling height)	~~0.86~~	0.81
Museum		
In a general exhibition area [i]	~~0.31~~	0.29
In a restoration room	~~1.10~~	1.18
Performing arts theater dressing/fitting room	~~0.41~~	0.37
Post office - Sorting area	~~0.76~~	0.67
Religious buildings		
In a fellowship hall((n)) [i]	~~0.54~~	0.48
In a worship/pulpit/choir area	~~0.85~~	0.71
Retail facilities		
In a dressing/fitting room	~~0.51~~	0.43
Hair salon		0.62

Nail salon		0.71
In a mall concourse	~~0.82~~	0.54
Massage space		0.77
Sports arena - Playing area		
For a Class 1 facility~~((i))~~ [d]	~~2.94~~	2.72
For a Class 2 facility~~((j))~~ [e]	~~2.01~~	1.88
For a Class 3 facility~~((k))~~ [f]	~~1.30~~	1.23
For a Class 4 facility~~((l))~~ [g]	~~0.86~~	0.81
Sports arena - Pools		
For a Class 1 facility [i]		2.09
For a Class 2 facility [j]		1.40
For a Class 3 facility [k]		0.94
For a Class 4 facility [l]		0.56
Transportation		
Airport Hangar		1.29
In a baggage/carousel area	~~0.39~~	0.27
In an airport concourse	~~0.25~~	0.47
At a terminal ticket counter~~((n))~~ [i]	~~0.51~~	0.38
Passenger loading area		0.67
Warehouse - Storage area		
For medium to bulky palletized items	~~0.33~~	0.31
For smaller, hand-carried items	~~0.69~~	0.66

For SI: 1 foot = 304.8 mm, 1 watt per square foot = 10.76 w/m^2.

a. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
b. A 'Facility for the Visually Impaired' is a facility that is licensed or will be licensed by local or state authorities for senior long-term care, adult daycare, senior support or people with special visual needs.
c. Additional lighting power allowance of 0.2 watts per square foot for the purpose of highlighting art or exhibits. This additional power shall be permitted only where the specified lighting is installed in addition to and controlled separately from general lighting in accordance with Section C405.2.6. This addi- tional power shall be used only for the specified luminaires, shall not be used for any other purpose, and shall not be added to any other space or the interior power allowance.
d. Reserved.
e. Reserved.
f. Reserved.
g. Where sleeping units are excluded from lighting power calculations by application of Section R404.1, neither the area of the sleeping units nor the wattage of lighting in the sleeping units is counted.
h. Where dwelling units are excluded from lighting power calculations by application of Section R404.1, neither the area of the dwelling units nor the watt- age of lighting in the dwelling units is counted.
i. Class I facilities consist of professional facilities; and semiprofessional, collegiate, or club facilities with seating for 5,000 or more spectators.
j. Class II facilities consist of collegiate and semiprofessional facilities with seating for fewer than 5,000 spectators; club facilities with seating for between 2,000 and 5,000 spectators; and amateur league and high school facilities with seating for more than 2,000 spectators.
k. Class III facilities consist of club, amateur league and high school facilities with seating for 2,000 or fewer spectators.
l. Class IV facilities consist of elementary school and recreational facilities; and amateur league and high school facilities without provision for spectators.
m. For classrooms, additional lighting power allowance of 4.50 W/ lineal foot of white or chalk boards for directional lighting dedicated to white or chalk boards.
n. Additional lighting power allowance of 0.15 W/ft^2 for ornamental lighting. Qualifying ornamental lighting includes luminaires that are specifically used in a decorative manner. This additional power shall be permitted only where the specified lighting is installed in addition to and controlled separately from display or general lighting in accordance with Section C405.2.6. This additional power shall be used

only for the specified luminaires and it shall not be added to any other space or the interior power allowance.

o. For scientific laboratories, additional lighting power allowance of 0.35 Watts per square foot for specialized task work - lighting that provides for small- scale, cognitive or fast performance visual tasks; lighting required for operating specialized equipment associated with pharmaceutical/laboratorial activities.

p. For offices, additional lighting power allowance of 0.20 W/square foot for portable lighting, which includes under shelf or furniture-mounted supplemental task lighting qualifies when controlled by a time clock or an occupancy sensor

q. Where a space is designated as unfinished, neither the area nor the lighting power in the space shall be calculated as part of the LPA.

r. For corridors, additional lighting power allowance of 0.25 W/square foot for display lighting and decorative lighting is permitted where provided for aesthetic purposes. Decorative lighting fixtures in corridors are also permitted to provide general lighting.

17.09.180 Electric Power at Gas-fired Commercial Cooking Appliances (C405.14.1)

A. Commercial food service equipment efficiency. The following types of equipment within the scope of the applicable Energy Star program shall comply with the energy-efficiency and water-efficiency criteria required to achieve the Energy Star label:

1. Commercial fryers: Energy Star Program Requirements for Commercial Fryers.
2. Commercial hot food holding cabinets: Energy Star Program Requirements for Hot Food Holding Cabinets.
3. Commercial steam cookers: Energy Star Program Requirements for Commercial Steam Cookers.
4. Commercial dishwashers: Energy Star Program Requirements for Commercial Dishwashers.

B. **Electric power at gas-fired commercial cooking appliances.** Where gas-fired commercial cooking appliances in commercial kitchen are provided in a building permitted under the 2021 Washington State Energy Code-Commercial, an electrical panel shall be provided within or adjacent to each space in which commercial cooking appliances are located, sized to serve future electric appliances to replace all gas-fired appliances in the space with a minimum capacity of 293 VA per kBTUH of gas appliance input capacity. The main electric service panel for the building shall be wired to and sized to accommodate all such commercial cooking appliance panels. Permit documents shall include a table listing each gas-fired commercial cooking appliance as well as an equivalent electric appliance providing the same or greater cooking capacity, and the total amperage required for the commercial kitchen electrical panel, This information shall be provided in both the mechanical and the electrical permit documents.

a. **EXCEPTION:** This requirement does not apply to gas-fired commercial cooking appliances installed in buildings originally permitted in compliance with an earlier edition of the Washington State Commercial Energy Code, if the building's main service panel lacks sufficient capacity to provide power for equivalent electric

versions of all the gas-fired commercial cooking appliances identified in the permit application.

17.09.190 Efficiency Measure Credit Requirements -- Table C406.2(1)

A. Table C406.2(1) of the 2021 edition of the Washington State Energy Code – Commercial is not adopted and the following is substituted:

Table C406.2(1)
Efficiency Measure Credits

Measure Title	Applicable Section	Prorating Flag	Occupancy Group					
			Group R-1	Group R-2	Group B	Group E	Group M	All Other
1. Dwelling unit HVAC control	((~~C406.2.2~~)) C406.2.1	Heat	NA	7	NA	NA	NA	NA
2. Improved HVAC TSPR [a]	C406.2.2.1	Heat	NA	8	11	17	22	NA
3. Improve cooling and fan efficiency	C406.2.2.2	Heat	((~~2~~)) 8	((~~2~~)) 5	((~~3~~)) 10	((~~4~~)) 10	((~~3~~)) 8	((~~2~~)) 8
4. Improve heating efficiency	C406.2.2.3	Heat	((~~2~~)) 1	((~~3~~)) 1	((~~3~~)) 1	((~~10~~)) 1	((~~16~~)) 2	((~~7~~)) 1
5. Improved low-carbon district energy system (10% better)	C406.2.2.4		3	3	4	11	17	8
6. Improved low-carbon district energy system (20% better)[b]	C406.2.2.5		9	10	12	33	52	24
7. High performance DOAS	C406.2.2.6	Heat	31	31	21	39	40	21/ (Group A: 40)[c]
8. Fault detection & diagnostics (FDD)	C406.2.2.7	Heat	2	2	2	6	9	4
9. 10% reduced lighting power	C406.2.3.1	Heat	7	4	18	16	((~~20~~)) 36	((~~15~~)) 16
10. 20% reduced lighting power[d]	C406.2.3.2	Heat	13	8	36	32	((~~52~~)) 72	((~~29~~)) 32
11. Lamp efficacy improvement	C406.2.3.3	Heat	5	6	NA	NA	NA	NA
12. Residential lighting control	C406.2.4.1	Heat	NA	8	NA	NA	NA	NA
13. Enhanced lighting control	C406.2.4.2	Heat	1	1	6	6	11	((~~6~~)) 5
14. Renewable energy	C406.2.5		7	12	13	13	10	11
15. Shower drain heat recovery	C406.2.6.1	SWH	9	30	NA	3	NA	NA
16. Service water heat recovery	C406.2.6.2	SWH	35	111	13	14	(Grocery) 41[e]	NA
((~~17. Heat pump water heating~~	~~C406.2.6.3~~	~~SWH~~	~~81~~	~~261~~	~~17~~	~~33~~	~~(Grocery) 95[e]~~	~~(A 2) 95[f]~~))
18. Heat trace system	C406.2.7.1	SWH	6	13	4	1	NA	6

19. Point of use water heater	C406.2.7.2	SWH	NA	NA	19	5	NA	NA
20. Service hot water distribution right sizing	C406.2.8	SWH	13	((~~42~~)) 10	NA	NA	NA	NA
21. High performance service hot water temperature maintenance system	C406.2.9	SWH	6	13	4	1	NA	6
22. High efficiency service hot water circulation system	C406.2.10	SWH	3	6	2	1	NA	4
23. Low flow residential showerheads	C406.2.11	SWH	3	3	NA	NA	NA	NA
24. Enhanced envelope performance[g]	C406.2.12	Heat	24	20	13	5	19	((~~14~~)) 16
25. Base reduced air leakage[g]	C406.2.13.2		29	24	6	3	9	((~~11~~)) 14
26. Enhanced reduced air leakage[g]	C406.2.13.3	Heat	53	44	11	5	16	((~~20~~)) 26
((~~27. Enhanced commercial kitchen equipment~~	~~C406.2.14~~	~~Heat~~	~~30[h]~~	~~18[h]~~	~~18[h]~~	~~30[h]~~	~~30[h]~~	~~31[h]~~))
28. Enhanced residential kitchen equipment	C406.2.15	Heat	12	19	NA	NA	NA	NA
29. Enhanced residential laundry equipment	C406.2.16	Heat	NA	6	NA	NA	NA	NA
30. Heat pump clothes dryers	C406.2.17	Heat	6	6	NA	NA	NA	NA
31. Efficient elevator equipment	C406.2.18	Heat	3	5	5	5	4	4

a. Projects using Item 2 shall not use Items 3, 4, or 7.
b. Projects using C406.2.2.5 shall not use C406.2.2.4.
c. For C406.2.2.6, occupancy Group A achieves 40 credits while other occupancy groups within the "all other" category achieve 21 credits.
d. Projects using C406.2.3.2 shall not use C406.2.3.1.
e. Service water heat recovery and heat pump water heating are available in Group M only for grocery stores larger than 10,000 ft^2. Large mixed retail with full grocery and butcher sections shall achieve half the credits. This credit is not available where refrigeration recovery to heat service hot water is used to meet the requirements of Section C403.9.2.3.
f. Heat pump water heating efficiency credits are available in the "all other" category only for Group A-2.
g. Buildings or building areas that are exempt from the thermal envelope requirements in accordance with Sections C402.1.1 and C402.1.2, do not qualify for this package.
((~~h. Additional energy efficiency credits, up to the maximum shown in Table C406.2(2), shall be calculated according to Section C406.2.14~~.))

17.09.200 Building Performance Factors (BPF) and Site Energy Performance Targets to be use with Section C407.3

A. Table C407.3(2) of the 2021 edition of the Washington State Energy Code – Commercial is not adopted and the following is substituted:

Table C407.3(2)
Building Performance Factors (BPF) to be used for Compliance with Section C407.3

Building Area Type	Building Performance Factor (BPF)
Multifamily	~~(0.51)~~ 0.45
Health care/hospital	(0.70)
Hotel/motel	~~(0.51)~~ 0.46
Office	(0.44)
Restaurant	(0.33)
Retail	(0.41)
School	(0.35)
Warehouse	(0.18)
All Others	(0.43)

B. Table C407.3(3) of the 2021 edition of the Washington State Energy Code – Commercial is not adopted and the following is substituted:

Table C407.3(2)
Site Energy Performance Targets to be used for Compliance with Section C407.3

Building Area Type	Site Energy Performance Targets
Multifamily	~~(0.59)~~ 0.53
Health care/hospital	(0.72)
Hotel/motel	~~(0.62)~~ 0.56
Office	(0.58)
Restaurant	(0.59)
Retail	(0.46)
School	(0.52)
Warehouse	(0.29)
All Others	(0.55)

17.09.205 Limits on Substandard Building Envelopes (C407.3.1)

A. Section C407.3.1 of the 2021 edition of the Washington State Energy Code – Commercial is not adopted and the following is substituted:

C407.3.1 Limits on ((~~nonmandatory measures~~)) substandard building envelopes. The Proposed Total UA of the proposed building shall be no more than ((~~20~~)) 10 percent higher than the Allowed Total UA as defined in Section C402.1.5.

17.09.210 Commissioning Process and Completion Requirements

A. The commissioning report shall be per Section C408.1.3 of the Washington State Energy Code – Commercial and shall be submitted to the Vancouver Department of Community Development *prior* to final inspection.

B. Section C408.1.4.3 of the 2021 edition of the Washington State Energy Code – Commercial is not adopted and the following is substituted:

Copy of report. The code official shall be permitted to require that a copy of the Commissioning Report be made available for review by the code official.

The mechanical and water heating portions of the commissioning report, in compliance with Sections C408.2, C408.3, and C408.7, shall be submitted to the Vancouver Department of Community Development prior to completion and approval of mechanical permit final inspection.

The controlled receptacle, lighting, and metering portions of the commissioning report, in compliance with Sections C408.4 and C408.6, shall be submitted to the Vancouver Department of Community Development prior to completion and approval of electrical permit final inspection.

The following items shall be submitted to the Vancouver Department of Community Development prior to completion and approval of final building inspection:

1. Full commissioning report, in compliance with Section C408.1.3.
   a. The commissioning report shall include a list of all unresolved deficiencies and any incomplete commissioning work required by Section C408, with a description and anticipated date of completion for each, or a statement signed by the certified commissioning professional attesting to successful commissioning of the entire project with no unresolved deficiencies or incomplete tests.
   b. Where tenant spaces will be built out under separate permits, the commissioning report shall describe the certified commissioning professional's scope of work required to complete commissioning of the central building HVAC systems and lighting control systems as the tenant spaces are completed.
2. Commissioning checklist, from Figure C408.1.4.1, signed by the certified commissioning professional.
3. Statement that the owner has received a copy of the commissioning report, signed by the owner or owner's authorized agent.

17.09.220 Renewable Energy (C411)

A. Section C411 of the 2021 edition of the ~~W~~ashington S~~t~~ate Energy Code – Commercial is not adopted and the following is substituted:

C411.1 On-site renewable energy. Each new building ((~~,~~)) or addition, larger than 5,000 square feet of *gross conditioned floor area*, shall include a renewable energy generation system consisting of not less than 0.5 W/ft^2 or 1.7 Btu/ft^2 multiplied by the sum of the *gross conditioned floor area*.

EXCEPTIONS:

1. Where a building's net roof area is not large enough to accommodate the entire on-site renewable energy generation system required by this section, the portion of that system that cannot be accommodated within the net roof area is permitted to be provided by one of the following options:
   a. Additional efficiency credits in accordance with Section C411.1.1.
   b. Off-site renewable energy in accordance with Section C411.2.1, including the requirements of Sections C411.2 and C411.2.2.

   For the purposes of this exception, the net roof area excludes the following:
   a. Areas shaded by existing natural or built objects in accordance with Exception 1 of Section C411.3.
   b. Areas occupied by mechanical equipment, including adjacent equipment service areas required by manufacturer or by applicable code.
   c. Areas required by applicable codes to remain clear for egress, fire department access, or equipment access.
   d. Areas with slopes greater than 2:12.
   e. Planted or vegetated areas.
   f. Skylights.
   g. Occupied roof decks.
2. Reduced Building Performance Factor. For projects utilizing the Section C407 Total Building Performance compliance path the on-site renewable energy generation system is not required where the building performance factor (BPF) is not less than 3 percent lower than the maximum BPF permitted cumulatively by all other sections of this code.

   Example: To use this exception, a building with a required BPF of 50 would be required to provide a BPF of (50 x 0.97 =) 48.5 instead.

   2.1. Where the BPF is not less than 1 percent lower than the BPF required cumulatively by other sections of this code, the size of the on-site renewable energy generation system is permitted to be reduced by 1/3.
   2.2. Where the BPF is not less than 2 percent lower than the BPF required cumulatively by other sections of this code, the size of the on-site renewable energy generation system is permitted to be reduced by 2/3.
3. Transfer to an *affordable housing* project. Where *approved* by the code official, all or part of the required on-site renewable energy generation system is permitted to be replaced by construction of a system that is 50 percent of the required system size when located on an existing *affordable housing* project within the City of Vancouver, or 75 percent of the required system size when located on a new construction *affordable housing* project within the City of Vancouver. Documentation demonstrating that the renewable energy generation system has

been installed on the *affordable housing* project site, the system is fully operational, and ownership has been transferred to the owner of the *afford- able housing* project, must be submitted prior to issuance of the certificate of occupancy.

4. Transfer to a Washington State agency program. Where *approved* by the permitting official, all or part of the required renewable energy generation system is permitted to be replaced by a contribution of $2.50 for each required watt of installed capacity, to a solar energy fund managed by a Washington State agency that will provide solar energy installations for *affordable housing* projects. Documentation demonstrating that the contribution has been received by the state agency must be submitted prior to issuance of the certificate of occupancy.
5. Affordable housing. The on-site renewable energy generation system is not required for affordable housing projects.

C411.1.1 Additional efficiency credits. Buildings which qualify for ((~~one of the exceptions~~)) Exception 1 in Section C411.1 to omit installation of on-site renewable energy ((~~must~~)) are permitted to achieve ((~~an~~)) additional ((~~18~~)) efficiency package credits from Table C406.2(1) equal to five times the number of credits provided for compliance with the renewable energy measure detailed in Section C406.2.5, in lieu of installing the on-site renewable energy required by Section C411.1. The additional ((~~18~~)) credits ((~~can~~)) are permitted to be reduced based on a prorated fraction of renewable capacity that is installed on-site.

On-site renewable energy installations of lower than required capacity can be counted proportionally toward achieve- ment of required or additional efficiency credits in Section C411.1.1 based on the capacity of renewable energy installed compared to the requirements of Section C411.1.

C411.2 On-site and off-site renewable energy accounting. Qualifying on-site and off-site renewable energy delivered or credited to the building project to comply with this code shall meet the requirements of this section. Renewable energy certifi-cates for an on-site or off-site renewable energy system shall be retired on behalf of the building owner for a period of not less than 15 years and tracked in accordance with Section C411.2.3 and submitted to the code official ((~~as part of the permit application~~)) before the final inspection. Renewable energy certificates (RECs) themselves are not a qualifying type of off-site renewable energy system.

C411.2.1 Qualifying types of off-site renewable energy systems. The following are considered qualifying off-site renewable energy systems:

1. Self-generation (an off-site renewable energy system owned by the building project owner) systems complying with Section C411.2.2.
2. Community renewable energy facility systems complying with Section C411.2.2.
3. ((~~Purchase~~)) Renewable power purchase agreement (PPA) contracts complying with Section C411.2.2 and, where applicable, Section C411.2.3.
4. Each source of renewable energy delivered to or credited to the building project shall be connected to the Western Interconnection and energy or capacity multiplied by the factors in Table C411.2.1.

Table C411.2.1
Multipliers for Renewable Energy Procurement Methods

Location	Renewable Energy Source	Renewable Energy Factor		
		In the state of Washington	Western Interconnected	In the states of Oregon or Idaho
On-site	On-site renewable energy system	1	NA	NA
Off-site	Directly owned off-site renewable energy system that begins operation after submission of the initial permit application	0.95	0.75	0.85
Off-site	Community renewable energy facility that begins operation after submission of the initial permit application	0.95	0.75	0.85
Off-site	Directly owned off-site renewable energy system that begins operation before submission of the initial permit application	0.75	0.55	0.65
Off-site	Community renewable energy facility that begins operation before submission of the initial permit application	0.75	0.55	0.65
Off-site	Renewable Power Purchase Agreement (PPA)	0.75	0.55	0.65

C411.2.2 Documentation requirements for off-site renewable energy systems. Off-site renewable energy delivered or credited to the building project to comply with Section C407.3 item 2.2, or other requirements of this code, shall be subject to a legally binding contract to procure qualifying off-site renewable energy. Qualifying off-site renewable energy shall meet the following requirements:

1. Documentation of off-site renewable energy procurement shall be submitted to the *code official* before the final inspection.
2. The purchase contract shall have a duration of not less than 15 years. The contract shall be structured to survive a partial or full transfer of ownership of the building property.
3. Records on renewable power purchased by the building owner from the off-site renewable energy generator that specifically assign the RECs to the building owner shall be retained or retired by the building owner on behalf of the entity demonstrating financial or operational control over the building seeking compliance to this standard and made available for inspection by the *code official* upon request.

Where multiple buildings in a building project are allocated energy procured by a contract subject to this section, the owner shall allocate for not less than 15 years the energy procured by the contract to the buildings in the building project. A plan on operation shall be developed which shall indicate how renewable energy produced from on-site or off-site systems that is not allocated before issuance of the certificate of occupancy will be allocated to new or existing buildings included in the building project.

C411.2.3 Renewable energy certificate (REC) tracking. For multitenant buildings where RECs are transferred to tenants, the plan for operation shall include procedures for tracking the quantity and vintage of RECs that are required to be retained and retired. The plan shall include provisions to transfer the RECs to building tenants, or to retire RECs on their behalf, in proportion to the gross conditioned and semi-heated floor area leased or rented. The plan shall include provisions to use a REC tracking system that meets the requirements of Section V.B of the Green-e Framework for Renewable Energy Certification. The plan shall describe how the building owner will procure alternative qualifying renewable energy in the case that the renewable energy producer ceases. The plan shall be submitted to the *code official* prior to the final inspection.

C411.3 Solar readiness. A solar zone shall be provided on buildings that are 20 stories or

less in height above grade plan. The solar zone shall be located on the roof of the building or on another structure elsewhere on the site. The solar zone shall be in accordance with this section and the *International Fire Code*.

EXCEPTION: A solar zone is not required under the following conditions:

1. Where the solar exposure of the building's roof area is less than 75 percent of that of an unshaded area, as defined in Section ((~~C411.5~~)) C411.3.4, in the same location, as measured by one of the following:
   1.1. Incident solar radiation expressed in kWh/ft^2-yr using typical meteorological year (TMY) data.
   1.2. Annual sunlight exposure expressed in cumulative hours per year using TMY data.
   1.3. Shadow studies indicating that the roof area is more than 25 percent in shadow, on September 21st at 10 a.m., 11 a.m., 12 p.m., 1 p.m., and 2 p.m. solar time.
2. Buildings, building additions, changes in space conditioning or occupancy where the total floor area is equal to or less than 500 square feet.

C411.3.1 Minimum area. The minimum area of the solar zone shall be determined by one of the following methods, whichever results in the smaller area:

1. 40 percent of roof area. The roof area shall be calculated as the horizontally projected gross roof area less the area covered by skylights, occupied roof decks, mechanical equipment, mechanical equipment service clearances required by equipment manufacturer or by code, and planted areas.
2. 20 percent of electrical service size. The electrical service size is the rated capacity of the total of all electrical services to the building, and the required solar zone size shall be based upon 10 peak watts of photovoltaic per square foot.

EXCEPTION: Subject to the approval of the code official, buildings with extensive rooftop equipment that would make full compliance with this section impractical shall be permitted to reduce the size of the solar zone required by Section C411.3 to the maximum practicable area.

C411.3.2 Contiguous area. The solar zone is permitted to be comprised of separated subzones. Each subzone shall be at least 5 feet wide in the narrowest dimension.

C411.3.3 Obstructions. The solar zone shall be free of pipes, vents, ducts, HVAC equipment, skylights and other obstructions, except those serving photovoltaic systems within the solar zone. The solar zone is permitted to be located above any such obstructions, provided that the racking for support of the future system is installed at the time of construction, the elevated solar zone does not shade other portions of the solar zone, and its height is permitted by the *International Building Code* and the Vancouver Land Use Code. Photovoltaic or solar water heating systems are permitted to be installed within the solar zone.

C411.3.4 Shading. The solar zone shall be set back from any existing or new object on the building or site that is located south, east or west of the solar zone a distance at least two times the object's height above the nearest point on the roof surface. Such objects include, but are not limited to, taller portions of the building itself, parapets, chimneys, antennas, signage, rooftop equipment, trees, and roof plantings. No portion of the solar zone shall be located on a roof slope greater than 2:12 that faces within 45 degrees of true north.

C411.3.5 Access. Areas contiguous to the solar zone shall provide access pathways and provisions for emergency smoke ventilation as required by the *International Fire Code*.

C411.3.6 Structural integrity. The as-designed dead load and live load for the solar

zone shall be clearly marked on the record drawings and shall accommodate future photovoltaic system arrays at an assumed dead load of 4 pounds per square foot in addition to other required live and dead loads. A location for future inverters shall be designated either within or adjacent to the solar zone, with a minimum area of 2 square feet for each 1000 square feet of solar zone area, and shall accommodate an assume dead load of 175 pounds per square foot. Where photovoltaic systems are installed in the solar zone, structural analysis shall be based upon calculated loads, not upon these assumed loads.

C411.3.7 Photovoltaic interconnection. A minimum 2-inch diameter roof penetration conduit shall be provided, with threaded caps above and below the roof deck and minimum R-10 insulation wrapping the lower portion, within each 2,500 square foot section of the required *solar zone* area. Interconnection of the future photovoltaic system shall be provided for at the main service panel, either ahead of the service disconnecting means or at the end of the bus opposite the service disconnecting means, in one of the following forms:

1. A space for the mounting of a future overcurrent device, sized to accommodate the largest standard rated overcur- rent device that is less than 20 percent of the bus rating.
2. Lugs sized to accommodate conductors with an ampacity of at least 20 percent of the bus rating, to enable the mounting of an external overcurrent device for interconnection.

The electrical construction documents shall indicate all of the following:

1. Solar zone boundaries and access pathways.
2. Location for future inverters and metering equipment.
3. Route for future wiring between the photovoltaic panels and the inverter, and between the inverter and the main service panel.

17.09.230 Optional Compliance Path – Target Performance Path (SEC C401.5)

A. Effective Month DD 202X, the City of Vancouver adopts the following Optional Compliance Path for meeting the requirements of the 2021 Washington State Commercial Energy Code.

B. C401.5 Target Performance Path:

C401.5.1 Scope. Buildings of the following occupancy types, including their initial tenant improvements, are permitted to conform to the Target Performance Path as described in this section and, unless noted otherwise, are not required to comply with Washington State Energy Code Commercial requirements and the Vancouver amendments per VMC 17.09.100 through 17.09.190 and VMC 17.09.205 through 17.09.220 other than the mandatory measures listed below in Section C401.5.3.

1. Group B office.

2. Group B medical office.

3. Group R-2 multi-family over three stories.

4. Group S-1 & S-2 warehouse (non-refrigerated).

5. Group E school.

6. Group M retail.

7. Group I-2 hospital.

8. Other occupancy type, where specific permission is granted by the *code official*. Any such permission, if granted, shall be made on the basis of an energy use target *approved* by the *code official* for that occupancy based on the best-performing local examples of that occupancy, adjusted to recognize the additional stringency of the current energy code.

9. Mixed use: A mixed use building is any building containing more than one of the occupancies listed in 1 through 8 above.

C401.5.1.1 Increased building performance factor. Each building conforming to this section is permitted to utilize a building performance factor (BPF) 1.12 times the BPF in Table C407.3(2). Refer to VMC 17.09.200 for Table C407.3(2).

C401.5.1.2 Site Energy Performance Target. Each building conforming to this section must demonstrate compliance with the Site energy performance factor per Table C407.3(3) as part of the permit review. Refer to VMC 17.09.200 for Table C407.3(3). Documentation of compliance with Site Energy Performance Target during the performance period is not required.

C401.5.1.3 Conversion of energy use to carbon emissions. Energy use in Target Performance Path calculations shall be converted to carbon emissions according to Table D201 in the 2021 Washington State Energy Code -- Commercial.

C401.5.2.1 Data Center Energy. Anticipated total *data center* energy use is permitted to be added to the overall building energy usage target in accordance with this section. The anticipated *IT energy* usage shall be multiplied by a factor of 1.45 to determine the anticipated total *data center* energy use. The *IT energy* usage shall be separately sub-metered in a secure manner *approved* by the *code official* and automatically exported to the *code official* showing daily, monthly and annual totals during the operational energy use demonstration period set forth in Section C401.5.6. Actual *IT energy* shall be adjusted in accordance with Section C401.5.7.

C401.5.3 Mandatory measures. Buildings using the Target Performance Path shall:

1. Not exceed the building performance factor (BPF) permitted by Section C401.5.1.1;

2. Not use fossil fuel combustion or electric resistance appliances for purposes of space heating or domestic water heating, except as permitted by the exceptions to Section C403.1.4;

3. Have a building envelope with a Proposed Total UA no greater than the Allowable Total UA as determined by Section C407.3.1; and

4. Comply with the mandatory measures listed in Table C407.2. of the 2021 Washington State Energy Code – Commercial.

C401.5.4 Energy modeling methodology. Energy use shall be modeled according to the requirements of Section C407, Total Building Performance:

Schedules, internal loads and other assumptions related to the operation of the building are permitted to be developed at the discretion of the design team and the energy modeler. For occupancy types listed in Appendix B of this code, where any of the following operating loads or schedules of operating hours used in modeling calculations is less than 80 percent of that listed in Appendix B, or where the occupant density in square feet per occupant is more than 120 percent of that listed in Appendix B, such deviations shall be clearly documented in the final analysis report and are subject to approval by the *code official*.

1. Occupant density and schedule.

2. Lighting operation schedule.

3. Receptacle loads and schedule.

4. Elevator and escalator schedule.

5. Water heating quantity and schedule.

In addition to documenting modeling assumptions, the application documentation required by Section G1.3.2 of ASHRAE 90.1, Appendix G, shall include the following:

1. Summary of principal building characteristics that are above or below prescriptive energy code requirements.

2. Sensitivity analysis of principal internal load and other building operational assumptions that demonstrate a range of expected energy performance in the context of typical meteorological year (TMY) conditions. The following sensitivity analyses shall be reported, in tabular format:

2.1. Occupant density +/- 20 percent (except residential occupancies).

2.2. Lighting Power Density +/- 20 percent.

2.3. Miscellaneous Load Power Density +/- 20 percent.

2.4. Infiltration Rates +/- 20 percent.

2.5. Temperature Setpoints +/- 2 degrees F.

Table C401.5.4

Example of Sensitivity Analysis Report Format

Allowable EUI: 45 kBTU/ft^2		
Predicted EUI: 40 kBTU/ft^2		
Input	EUI (Low Range)	EUI (High Range)
Occupant Density	35	42
Lighting Power Density	38	41
Misc. Load Power Density	35	45
Infiltration	38	44
Temperature Setpoints	36	48

C401.5.5 Energy modeler qualifications. Energy models shall be created only by persons qualified by education and training to perform such work and who have at least two years' experience modeling buildings of similar scale and complexity. The modeling documentation submitted shall be signed either by a licensed professional engineer who is qualified by training and experience to perform energy modeling or by an individual with an active certification from ASHRAE as a Building Energy Modeling Professional (BEMP).

C401.5.6 Demonstration of operating energy use. Metered energy data shall be supplied directly via automated reporting from utilities to the *code official* using Portfolio Manager, and adjusted for the percentage of the *conditioned floor area* intended for occupancy that is occupied during the recording period. While more than 95 percent occupied, the building shall be considered fully occupied. While no less than 85 percent occupied, the building shall operate at or below its assigned building performance factor established in Section C401.5.2 or Item 8 of Section C401.5.1 for any

recording period of 12 consecutive months that is completed within three years of the date of the Certificate of Occupancy, as adjusted under this Section C401.5. The owner shall notify the *code official* when this 12-month period has been successfully completed.

Informative Note: Documentation of compliance with the site energy reduction target in Section C407.3 is not required.

C401.5.6.1 Extension of demonstration period. For good cause, including conditions where less than 75 percent of the building is occupied, the *code official* may extend the three-year period for one additional year, but in no case for more than three additional one-year periods. If the building is not at least 75 percent occupied after three additional one-year periods, the *code official* shall evaluate compliance with Section C401.5.6 based on the most recent one-year period and adjusted for the actual occupancy rate during that period.

C401.5.7 Adjustment for data center energy usage. Where *data center IT energy* usage during the demonstration period, multiplied by a factor of 1.45, is higher than the total *data center* energy use as calculated according to Section C401.5.2.1, that additional energy shall be added to the total allowable energy use. Where *data center IT energy* use, multiplied by a factor of 1.45, is lower than the total *data center* energy use as calculated according to Section C401.5.2.1, that shortfall shall be subtracted from the total allowable energy use.

C401.5.8 Adjustment for change in occupancy. When the occupancy of the building or a portion of the building changes from that assumed in the permit submittal, the assigned energy performance target shall be adjusted to reflect the new occu- pancy. If the new occupancy is not listed in Section C401.5.2, either the *code official* shall assign it an energy use target based on the best-performing local examples of that occupancy type, or a metering system shall be provided that excludes the energy loads for the additional occupancy.

C401.5.9 Adjustment for unusually cold years. If the heating degree days (HDD) recorded by the National Weather Service for the Portland International Airport (PDX) exceeds 4,267 HDD for the 12-month demonstration period (4 percent above the average 4,103 HDD at 65°F base), the assigned energy performance target is permitted to be increased by 1 percent for that period.

C401.5.10 Adjustment for retail operating hours. If the annual number of hours that a retail occupancy is open to the public during the 12-month recording period exceeds the hours assumed in the energy model by more than 4 percent, the annual energy use target for the retail space use only is permitted to be increased by 1 percent for each 4 percent increase in such hours. This claim shall be documented by publicly available published hours of operation.

C401.5.11 Adjustment for commercial kitchens and other large process loads. Where the building includes a commercial kitchen, commercial laundry, hospital central sterile

processing facility, or similar large process load, and where *approved* by the *code official*, the energy use of the process equipment and exhaust fans and relief air fans and air tempering associated with the use of that equipment is permitted to be separately sub-metered and subtracted from the overall building energy usage. Energy use of typical HVAC, lighting, and miscellaneous electrical loads within such spaces shall not be included in this adjustment. An *approved* plan shall be submitted with the permit documents detailing how the sub metered process load energy will be automatically deducted from the total building energy use and the adjusted total reported to the code official.

C401.5.12 Financial security. The applicant shall provide a financial security to be used as a penalty for failing to achieve an operating energy use lower than the building's energy use target according to Section C401.5.6. The penalty shall be administered as provided in Section C110, except that the amount of the penalty shall be determined using Table C401.5.13 and not Section C107. The financial security shall be submitted to and *approved* by the *code official* prior to issuance of the building's Certificate of Occupancy. The financial security requirement shall be fulfilled by one of the following methods:

1. An irrevocable letter of credit from a financial institution authorized to do business in Vancouver, in an amount equal to

$4.00 per square foot of gross *conditioned floor area*.

2. A bond secured by the applicant to ensure compliance with this section, in an amount equal to $4.00 per square foot of gross *conditioned floor area*.

3. A binding pledge that within 3 years of receipt of the Certificate of Occupancy, adjusted as allowed under Section C401.5.6.1, the applicant will comply with the requirements of this section.

    3.1. A binding pledge pursuant to item 3 of this subsection shall be recorded as a covenant in the land records of Clark County between the applicant and The City of Vancouver in a form that is satisfactory to the Vancouver City Attorney. The covenant shall bind the applicant and any successors in title to pay any fines levied pursuant to this section. A lien will be placed on the property in cases of non-payment.

If the owner provides evidence that the building has operated at or below its target energy performance level as provided in Section C401.5.6, the financial security provided by the applicant shall be returned to the applicant, or the pledge and covenant shall be released, and the applicant will have no further obligations under this section.

C401.5.13 Procedure for non-compliance. If the owner fails to provide evidence that the building has operated as required under Section C401.5.6, the *code official* shall, as applicable, either:

1. Draw down on a financial security provided in the form of an irrevocable letter of credit or a bond, in whole, or in part; or

2. Levy a fine against an applicant that provided a financial security in the form of a binding pledge as set forth in Section C401.5.12(3). The fine shall be issued as a civil penalty.

The amount of the fine levied or the amount drawn down from a financial security shall be determined according to Table C401.5.13.

Table C401.5.13
Financial Security and Energy Efficiency Reimbursements

Energy use exceeding target	**Amount of fine or draw-down from financial security, per square foot of gross conditioned floor area**	**Maximum reimbursement per square foot of gross conditioned floor area for work *approved* under Section C401.5.12**
Less than 10%	$1.00	$0.50
10% to less than 20%	$2.00	$1.00
20% to less than 30%	$3.00	$1.50
30% or greater	$4.00	$2.00

C401.5.14 Reimbursements. Where a financial security has been drawn down pursuant to item 1 in Section C401.5.13, or a fine has been levied pursuant to item 2 in Section C401.5.13, the *code official* shall reimburse the owner for documented expenses incurred to lower the operating energy use of the building, including commissioning, repairs or improvements to the existing energy-consuming systems, or provision of additional energy efficiency measures, up to the maximum reimbursement amounts listed in Table C401.5.13. Such expenditures shall be *approved* in advance by the *code official*, and the work shall be fully completed within one year of the date when a financial security has been drawn down pursuant to item 1 in Section C401.5.13, or a fine has been levied pursuant to item 2 in Section C401.5.13.

ATTACHMENT C

CITY OF
Vancouver
WASHINGTON

SEPA Determination of Non-Significance

November 7, 2025

SEPA Determination of Non-Significance (DNS) for the City of Vancouver's Green Building Program - a framework of policies and future building and land use code amendments to implement the City's Climate Action Plan in regard to new construction of multi-family residential, commercial and industrial development.

Contact: Chad Eiken, Director, Vancouver Community Development Department (360 487-7882), chad.eiken@cityofvancouver.us The City of Vancouver, lead agency, has reviewed the Environmental Checklist as required by WAC 197-11-330(1), pursuant to the State Environmental Policy Act (SEPA), and determined that the proposal will not have a probable significant adverse impact on the environment. Under the authority of WAC 197-11-330(1) and 197-11-350, this Notice of Determination of Non-Significance (DNS) has been issued. A SEPA checklist and background information are available from City staff. Pursuant to WAC 197-11-340, comments ***on this SEPA determination*** will be received until **5:00 p.m., December 8, 2025.** Procedural appeals to the SEPA determination must be filed in writing within 14 calendar days following the end of the comment period. A City Council decision of the SEPA procedural appeal shall be final and not subject to further administrative appeal. Substantive SEPA appeals shall be filed in writing within 14 calendar days of the issuance of Council's decision.

Chad Eiken

Chad Eiken, Director — November 7, 2025 Date

CITY OF
Vancouver
WASHINGTON

SEPA Determination of Non-Significance
Extension of Public Comment Period

December 10, 2025

SEPA Determination of Non-Significance (DNS) was issued November 7, 2025 for the City of Vancouver's Green Building Program - a framework of policies and future building and land use code amendments to implement the City's Climate Action Plan in regard to new construction of multi-family residential, commercial and industrial development. The SEPA comment period has been extended to December 31, 2025.

Contact: Chad Eiken, Director, Vancouver Community Development Department (360 487-7882), chad.eiken@cityofvancouver.us The City of Vancouver, lead agency, has reviewed the Environmental Checklist as required by WAC 197-11-330(1), pursuant to the State Environmental Policy Act (SEPA), and determined that the proposal will not have a probable significant adverse impact on the environment. Under the authority of WAC 197-11-330(1) and 197-11-350, this Notice of Determination of Non-Significance (DNS) has been issued. A SEPA checklist and background information are available from City staff.

Pursuant to WAC 197-11-340, written comments ***on this SEPA determination*** will be received until **5:00 p.m., ~~December 8, 2025~~ December 31, 2025.** Procedural appeals to the SEPA determination must be filed in writing within 14 calendar days following the end of the comment period. A City Council decision of the SEPA procedural appeal shall be final and not subject to further administrative appeal. Substantive SEPA appeals shall be filed in writing within 14 calendar days of the issuance of Council's decision.

Chad Eiken, Director — December 10, 2025 Date

WAC 197-11-960: SEPA ENVIRONMENTAL CHECKLIST

City of Vancouver's Green Building Program

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

A. BACKGROUND

1. Name of proposed project, if applicable: City's Green Building Program (GBP)

2. Name and contact information of applicants: City of Vancouver | Contact: Chad Eiken, Director, Community Development Department | P.O. Box 1995, Vancouver, WA 98668-1995 | chad.eiken@cityofvancouver.us

4. Date checklist prepared: November 4, 2025

5. Agency requesting checklist: City of Vancouver, WA

6. Proposed timing or schedule (including phasing, if applicable): Public hearings on the Green Building Program scheduleld for Monday December 15, 2025 at 6:30 p.m, at Vancouver City Council Hall, 415 W 6th St., Vancouver, WA 98668-1995

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. Yes. The GBP is intended to support the City's 2040 carbon neutrality target by reducing buildng energy use and life-cycle carbon emissions in new construction, protecting residents from climate hazards, and minimizing ecological impacts. The GBP will outline the City's policy direction in regard to the above goals and will specify implementation measures that will occur in phases, including required building and site-related measures that will be included in forthcoming updates to VMC Title 11 (Building Code) and VMC Title 20 (Land Use and Development Code) as well as a variety of incentives that will be adopted by ordinance (subject to public hearing and Council approval) or through administrative policy, as appropriate. The GBP will set the policy framework and direction, with subsequent action required to implement the program. (See Attachment A for full description of the Green Building Program policies and implementation)

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. None to-date.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. None known.

10. List any government approvals or permits that will be needed for your proposal, if known. The GBP will require future adoption of revisions to the City's building code, VMC Title 17, as well as revisions to the City's land use and development code, VMC 20. Additionally, incentives for voluntary incorporation of green building features will require revisions to the Vancouver Municipal Code. Several incentives such as a rebate on building permit fees and deferral of payment of traffic impact fees will require revisions to VMC 17 and 20. Others, such as deferral of payment of City System Development Charges (SDC's) will require revisions to VMC 14.16 (Water and Sewer Service Connections). All of these will require approval of ordinances by City Council following a public hearing.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

The GBP policy elements are based on a combination of extensive literature review, best practices research, energy and emissions scenario modeling, limited financial modeling, and engagement with interested and affected parties. This work was conducted with support from the project consultant, Sustainable Solutions Group (SSG), with additional financial impact analysis conducted by BAE Urban Economics.

These GBP policy elements are organized into four main categories:

- Energy and Building Performance: Focuses on improving building energy efficiency and reducing greenhouse gas emissions from ongoing building operations.
- Climate and Environmental Impacts: Aims to lower embodied carbon, promote the use of sustainable materials, and address transportation-related emissions.
- Climate Protection and Resilience: Includes strategies to mitigate urban heat islands and protect building occupants from climate-related impacts such as extreme heat and wildfire smoke.
- Ecology and Natural Systems: Supports local wildlife and ecosystems through targeted strategies.

Specific climate action strategies outlined in the GBP are as follows:

- **Improved Energy Efficiency:** Exceed State standards for building energy efficiency by 10% to reduce operational emissions; exemption proposed for Affordable Housing (100% units at 80% AMI or lower for at least 12 years), to be revisited every building code cycle

- **All-Electric Buildings**: Requires new construction to be designed and wired so that appliances and systems can easily transition to all-electric operation in the future, even if gas equipment is initially installed; exemption proposed for industrial uses and commercial kitchens
- **Embodied Carbon and Lifecycle Assessment:** Encourage the use of lower-carbon materials in the construction process (incentive based); mass timber buildings automatically satisfy this standard
- **Use of Sustainable Buildng Materials:** Encourage the use of recycled, local and sustainable materials in construction (incentive based)
- **Electric Vehicle Charging Stations to be on individual commercial meters**: Ensures EV chargers will be able to benefit from lower commercial electrical rates and make it easier to add electrical capacity in the future
- **Renewable Energy Generation:** Encourage alternative energy sources (e.g. solar panels) to reduce emissions and improve energy security (incentive based)
- **Building Refuge Area:** To provide a space with temperature control, water, and backup power for building occupants to take refuge during climate or air quality emergencies
- **Cool Roofing:** Applies to flat roofs – reduce urban heat island effects through lighter colored roofs
- **Indoor temperature control:** Applies to multi-family residential, commercial, and conditioned office space in industrial buildings only; option for Affordable Housing Projects to meet this requirement by providing a common, accessible Building Refuge Area with temperature control/power back-up
- **Air filtration standard:** Ensure building occupants have safe indoor air quality during wildfire smoke or similar air quality events; HVAC systems must be capable of accommodating MERV-13 filter media for air quality hazard situations, but lower-grade filters may be used at other times; applies to multi-family residential, commercial and conditioned office space in industrial buildings
- **Cool site surfaces:** Reduce urban heat island effects through reduced paving, paving color, or landscaping
- **Bird-friendly design:** Reduce bird mortality from window strikes; multi-family residential, commercial and industrial projects must use a product with an American Bird Conservancy Threshold rating of 30 or below or comply with a prescriptive pathway (to include special glazing or other measure)
- **Dark sky lighting:** To minimize light pollution which confuses migrating species and reduce energy waste by directing lights downward (incentive based)
- **Resilient/Climate adapted vegetation:** To reduce irrigation requirements, conserve water and support local pollinator species; applies to multi-family residential, commercial and industrial project sites.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section,

township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. The proposed Green Building Program will apply citywide to all new multi-family, commercial, and industrial construction, with several exceptions for certain industrial uses and qualifying affordable housing projects, as outlined in the GBP.

B. ENVIRONMENTAL ELEMENTS

1. EARTH: See Section D for Non-Project Actions

a. General description of the site

(circle one): Flat, rolling, hilly, steep slopes, mountainous,

other _____ Does Not Apply

b. What is the steepest slope on the site (approximate percent slope)? Does Not Apply

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils. Does Not Apply

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe. Does Not Apply

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill. Does Not Apply

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. Does Not Apply

g. **About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?** Does Not Apply

h. Proposed measures to reduce or

Does Not Apply

2. AIR: Not Applicable to Non-Project Actions

a. **What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.** Does Not Apply

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. Does Not Apply

c. Proposed measures to reduce or control emissions or other impacts to air, if any: Does Not Apply

3. WATER: Not Applicable to Non-Project Actions

a. Surface Water: Not Applicable to Non-Project Actions

1) **Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.** Does Not Apply
2) **Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.** Does Not Apply
3) **Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.** Does Not Apply
4) **Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.** Does Not Apply
5) **Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.** Does Not Apply
6) **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.** Does Not Apply

b. **Ground Water:** Not Applicable to Non-Project Actions

1) **Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.** Does Not Apply
2) **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.** Does Not Apply

c. **Water runoff (including stormwater):** Not Applicable to Non-Project Actions

1) **Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.** Does Not Apply
2) **Could waste materials enter ground or surface waters? If so, generally describe.** Does Not Apply
3) **Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.** Does Not Apply

d. **Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:** Not Applicable to Non-Project Actions

4. **PLANTS:** Not Applicable to Non-Project Actions

a. **Check the types of vegetation found on the site:**

____**deciduous tree: alder, maple, aspen, other**
____**evergreen tree: fir, cedar, pine, other**
____**shrubs**
____**grass**

____pasture
____crop or grain
____ Orchards, vineyards or other permanent crops.
____ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
____water plants: water lily, eelgrass, milfoil, other
____other types of vegetation Does Not Apply

b. What kind and amount of vegetation will be removed or altered? Does Not Apply
c. List threatened and endangered species known to be on or near the site. Does Not Apply
d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: Does Not Apply
e. List all noxious weeds and invasive species known to be on or near the site. Does Not Apply

5. ANIMALS: Not Applicable to Non-Project Actions
a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. Examples include: Does Not Apply
birds: hawk, heron, eagle, songbirds, other:
mammals: deer, bear, elk, beaver, other:
fish: bass, salmon, trout, herring, shellfish, other _____
b. List any threatened and endangered species known to be on or near the site. Does Not Apply
c. Is the site part of a migration route? If so, explain. Does Not Apply
d. Proposed measures to preserve or enhance wildlife, if any: Does Not Apply
e. List any invasive animal species known to be on or near the site. Does Not Apply

6. ENERGY & NATURAL RESOURCES: Not Applicable to Non-Project Actions
a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc. Does Not Apply
b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. Does Not Apply
c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any: Does Not Apply

7. ENVIRONMENTAL HEALTH: Not Applicable to Non-Project Actions
a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. Does Not Apply
Describe any known or possible contamination at the site from present or past uses. Does Not Apply
1) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity. Does Not Apply

2) **Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.** Does Not Apply

3) **Describe special emergency services that might be required.** Does Not Apply

4) **Proposed measures to reduce or control environmental health hazards, if any:** Does Not Apply

b. Noise: Not Applicable to Non-Project Actions

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? Does Not Apply

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site. Does Not Apply

3) Proposed measures to reduce or control noise impacts, if any: Does Not Apply

8. LAND AND SHORELINE USE: Not Applicable to Non-Project Actions

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. Proposal is intended to apply citywide to new multi-family residential, commercial and industrial projects with limited exceptions as outlined in the GBP.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use? Does Not Apply

1) **Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:** Does Not Apply

c. Describe any structures on the site. Does Not Apply

d. Will any structures be demolished? If so, what? Does Not Apply

e. What is the current zoning classification of the site? Does Not Apply

f. What is the current comprehensive plan designation of the site? See previous response 8a

g. If applicable, what is the current shoreline master program designation of the site? Does Not Apply

h. Has any part of the site been classified as a critical area by the city or county? If so, specify. Does Not Apply

i. Approximately how many people would reside or work in the completed project?

Specific projections are not obtainable for non-project actions.

j. Approximately how many people would the completed project displace?

No displacements are anticipated from the proposed map changes.

k. Proposed measures to avoid or reduce displacement impacts, if any: Does not apply

L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: Does Not Apply

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any: Does Not Apply

9. HOUSING: Not Applicable to Non-Project Actions

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. Does Not Apply

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. Does Not Apply

c. Proposed measures to reduce or control housing impacts, if any: Does Not Apply

10. AESTHETICS: Not Applicable to Non-Project Actions

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? Does Not Apply

b. What views in the immediate vicinity would be altered or obstructed? Does Not Apply

c. Proposed measures to reduce or control aesthetic impacts, if any: Does Not Apply

11. LIGHT & GLARE: Not Applicable to Non-Project Actions

a. What type of light or glare will the proposal produce? What time of day would it mainly occur? Does Not Apply

b. Could light or glare from the finished project be a safety hazard or interfere with views? Does Not Apply

c. What existing off-site sources of light or glare may affect your proposal? Does Not Apply

d. Proposed measures to reduce or control light and glare impacts, if any: Does Not Apply

12. RECREATION: Not Applicable to Non-Project Actions

a. What designated and informal recreational opportunities are in the immediate vicinity? Does Not Apply

b. Would the proposed project displace any existing recreational uses? If so, describe. Does Not Apply

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: Does Not Apply

13. HISTORIC & CULTURAL PRESERVATION: Not Applicable to Non-Project Actions

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe. No

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. Does Not Apply

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc. Does Not Apply

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required. Does Not Apply

14. TRANSPORTATION: Not Applicable to Non-Project Actions

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any. Does Not Apply

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop? Does Not Apply

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? Does Not Apply

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private). Does Not Apply

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. Does Not Apply

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates? Does Not Apply

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe. Does Not Apply

h. Proposed measures to reduce or control transportation impacts, if any: Does Not Apply

15. **PUBLIC SERVICES:** Not Applicable to Non-Project Actions

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe. Not Applicable

b. Proposed measures to reduce or control direct impacts on public services, if any. Does Not Apply

16. **UTILITIES:** Not Applicable to Non-Project Actions

a. Circle utilities currently available at the site:
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other _____Does Not Apply

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed. Does Not Apply

C. Signature

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____

Name of signee Chad Eiken

Position and Agency/Organization

Director, Vancouver Community Development Deparment

Date Submitted: November 4, 2025

D. SUPPLEMENTAL SHEET FOR NON-PROJECT ACTIONS

1. **How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?**
   The Green Building Program will establish a framework and policy direction for future code amendments which are intended to improve environmental outcomes from new development. No increase to water discharge, air emissions, toxic or hazardous substances, or production of noise will occur from the adoption of the program or subsequent building or site-related measures.

   Proposed measures to avoid or reduce such increases are: Does not apply

2. **How would the proposal be likely to affect plants, animals, fish, or marine life?**
   The proposed policies and subsequent code amendments will not have any adverse effect on plants, animals, fish, or marine life.

   Proposed measures to protect or conserve plants, animals, fish, or marine life are:
   Does not apply.

3. **How would the proposal be likely to deplete energy or natural resources?**
   The proposal will not result in the depletion of energy or natural resources; instead, the policies and subsequent code amendments to VMC 11 (Building Code) and VMC 20 (Land Use and Development Code) are intended to require and encourage cleaner, more efficient use of energy and natural resources, reduce emissions, and improve environmental outcomes.

   Proposed measures to protect or conserve energy and natural resources are:
   Does not apply.

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

Proposed policies and future code amendments will improve environmental outcomes and will not adversely affect sensitive lands.

Proposed measures to protect such resources or to avoid or reduce impacts are:
Does not apply.

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans

Most new development will either be required or incentivized to provide more energy-efficient buildings with lower emissions. While most policies and code requirements will be specific to building design, some proposed site improvement measures will lessen urban heat island effects and reduce water consumption.

Proposed measures to avoid or reduce shoreline and land use impacts are: Does not apply.

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

The proposed Green Building Program policies will not increase demands on transportation or public services and utilities and in fact are intended to reduce energy consumption by increasing building performance and encouraging alternative modes of transportation through safe and secure bicycle storage in new buildings.

Proposed measres to reduce or respond to such demand(s) are: Does not apply.

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

The proposed Green Building Program, which is intended to improve environmental outcomes, will not conflict with local, state or federal laws or requirements for the protection of the environment.

1. PURPOSE

This Policy is intended to establish a framework for excluding persons engaging in Prohibited Activities from certain non-park City facilities. This Policy applies to the internal building areas for City Hall, the utility payment building, Marine Park Engineering, and the Water Resource Education Center, which are City-owned and/or operated properties, collectively referred to as "City Facilities."

2. PROHIBITED ACTIVITY

Individuals may be excluded from City Facilities for engaging in Prohibited Activities including violating City code, state law, or other adopted or approved written City policies governing use of City Facilities. (This Policy is intended as an enforcement mechanism for City Policy 1100.001 relating to City Hall use.) Examples of Prohibited Activity include engaging in dangerous or disruptive behavior or committing criminal acts while at City Facilities. Violation(s) must be documented and may be enforced through the appropriate enforcement mechanism. This may also include a police-issued infraction or citation, or an arrest for criminal activity.

- Unless it is clear from the circumstances that additional attempts to stop the Prohibited Activity would be futile or unsafe to attempt, City staff will make reasonable efforts to ask that visitors stop Prohibited Activity.

- City Facilities are primarily used to conduct and provide governmental services. Activity or behavior is disruptive if it unreasonably interferes with City staff's ability to perform their assigned duties of providing governmental services or unreasonably interferes with other public users of City Facilities. A non-exhaustive list of examples of Prohibited Activities includes the following:

    1. Loud and/or repetitive noises, including a raised voice, electronic/recorded sounds, or percussive sounds;
    2. Displaying signs;
    3. Displaying bright or flashing lights;
    4. Releasing excessively foul odors;
    5. Exhibiting aggressive or threatening physical behavior;
    6. Using a facility for a purpose for which it was not intended (bathing in restroom); and
    7. Advocating for or against a ballot issue/candidate while on specified City property.

- If Prohibited Activity occurs, the person engaging in Prohibited Activity will be asked to leave the City Facility immediately.

- If a Prohibited Activity continues, the person engaging in Prohibited Activity will be issued a Notice of Trespass effective for one day to one year depending upon the circumstances.

3. IMPLEMENTATION

This Policy applies to the portions of City Facilities open to the public. Members of the public have a liberty interest protected by the Due Process Clause of the United States Constitution to be present at and remain in places generally open to the public, subject to reasonable behavioral requirements. The City has an important interest in protecting public health, safety, and welfare from those who violate laws, regulations, and rules applicable to public places. This Policy does not apply to areas of City Facilities

closed to public access. If a member of the public enters an area closed to public access, they may be subject to criminal trespass.

A. Issuing Officer. Person responsible for completing the Notice of Trespass.

B. Notice of Trespass. The Issuing Officer shall complete the Notice of Trespass, Attachment 1, which will include the following:

1. A brief factual basis for the exclusion, including the prohibited behaviors/actions;
2. The time period of the exclusion;
3. The physical area the individual is excluded from;
4. The consequences for failure to comply; and
5. The right of the individual to appeal the Notice of Trespass.

C. Basis for Exclusion. Individuals may be excluded from City Facilities for engaging in Prohibited Activity pursuant to section 2, above.

D. Determination to Issue Notice. A decision to issue a Notice of Trespass and exclude an individual constitutes a determination that allowing that individual to remain at the public property creates a risk to the public's health, safety, and welfare and that immediate removal is warranted. Exclusion from public property open to the public is a significant remedy and is not warranted for all violations.

E. Issuing the Notice. Once the Issuing Officer determines exclusion is warranted, the Issuing Officer shall complete the Notice of Trespass. The Issuing Officer will then give it to the person engaged in the Prohibited Activity or ask VPD, a security officer, or Building Coordinator or designee to hand-deliver it to the person engaged in Prohibited Activity. If personal delivery is not feasible, the Notice of Trespass will be sent by first-class mail to the individual at their last known address.

F. Written Log. The City will maintain a centralized database of all individuals issued a Notice of Trespass.

G. Appeals. A Notice of Trespass is subject to appeal. The Notice of Trespass is fully enforceable while under appeal. Any person issued a Notice of Trespass may appeal the Notice of Trespass, which must be received at the Front Desk in City Hall City within seven business days of its issuance. An appeal is an administrative review and determination to uphold, modify, or overturn the Notice of Trespass.

1. *Appeal Application*. Individuals filing an Appeal Application, known as the Appellant, must fully complete the appeal form and identify the factual and legal reasons why the Notice of Trespass should be modified or overturned. The form of the Appeal Application is Attachment 2.

2. *Timing***.** Within seven business days of receiving a complete Appeal Application, the Appeal Hearing Officer will schedule a hearing. A written notice of the hearing date, time, and location, including whether the hearing is remote, will be provided to the Appellant at the email or mailing address provided on the appeal form and the Issuing Officer at least two days in advance of the hearing. The Appeal Hearing Officer may, at

their discretion and in the interest of justice, postpone the hearing date by up to 14 business days.

3. *Appeal Hearing Process*. An appeal hearing shall proceed as follows:

a. Any written materials shall be provided to the Appeal Hearing Officer and the other party by the beginning of the hearing, or by any other timeframe established by the Appeal Hearing Officer. Any written briefing shall not exceed three pages, excluding exhibits. The City shall provide a clerk to make an audio record of the hearing.

b. Oral arguments may be presented by each side. Unless the Appeal Hearing Officer determines additional time is necessary due to extenuating circumstances, each party will have no more than 10 minutes to present arguments. Arguments shall begin with the Appellant, followed by the Issuing Officer. The Appellant shall have up to five additional minutes for rebuttal.

c. Each side may present evidence, including calling witnesses, which shall not extend the timeframes identified in subsection b, immediately above.

5. *Burden of Proof*. The City bears the burden of proof by a preponderance of the evidence that the Notice of Trespass was properly issued.

6. *Final Decision*. The Appeal Hearing Officer may make an oral decision at the hearing. Regardless of whether an oral decision is issued, a written decision will be issued within five business days of the appeal hearing.

a. The decision shall be provided to the Appellant at the address listed on the appeal form, and to the Issuing Officer.

b. The decision will address the issues raised in the appeal hearing. The decision shall state the grounds upon which it is based. An oral or written decision on the appeal will be final once it is issued, subject to appeal as a petition for writ of certiorari pursuant to chapter 7.16 RCW.

7. *Default*. If the Appellant fails to appear at the hearing, the Appeal Hearing Officer may find that the Appellant is in default and uphold the issuance of the Notice of Trespass.

H. Enforcement. Any law enforcement officer authorized by law to enforce the criminal laws of Washington State, including but not limited to VPD officers, may enforce the Notice of Trespass and resulting exclusion.

ATTACHMENT 1

NOTICE OF TRESPASS

DATE: _____

You have been trespassed from _____ for the period of _____ days/weeks/months (circle one) from the date listed above for engaging in dangerous, illegal, and/or unreasonably disruptive behavior at a City of Vancouver facility in violation of adopted City policy.

You have engaged in the following conduct (list date and brief description of conduct; list infraction/citation number if applicable):_____
_____
_____
_____

You may appeal this Notice of Trespass by filing an Appeal Application to the Appeal Hearing Officer, which must be received by the City within seven business days of issuance of the Notice of Trespass. A copy of the Appeal Application is included with this Notice. This Notice of Trespass shall be in effect during any applicable appeal. _____

Any attempt by you to enter _____ while the appeal is pending will be considered trespassing and the Vancouver Police Department will be contacted to perform a criminal trespass.

This Notice of Trespass was issued to the following individual:

Name:_____ DOB:_____

Address:_____

Phone:_____ Email:_____

Signature:_____ Date:_____

City Issuing Officer:_____

ATTACHMENT 2

CITY FACILITY TRESPASS APPEAL APPLICATION

Instructions: You must fill out this Appeal Application completely, legibly, and accurately. Failure to correctly fill in your information, written statement of appeal, or to properly sign and date the Appeal Application may cause it to be rejected and returned to you.

A complete Appeal Application must be received by the City within seven business days of the issuance of the Notice of Trespass and must be mailed or personally delivered to 415 W 6th St, Vancouver, WA 98660 (Vancouver City Hall), addressed to the City Clerk's office. This appeal period begins the day after the Notice of Trespass is issued. If the last day of the appeal period falls on a weekend, or holiday in which City Hall is closed to the public, the last day of the appeal period is extended to the next business day.

Name:_____

Date of Notice of Trespass:_____

Address:_____
Street City State Zip

Phone:_____ Email:_____

I am appealing the Notice of Trespass for the following reasons:_____

(You may print and attach additional sheets as necessary)

I certify under penalty of perjury pursuant to the laws of the State of Washington, that the information on this form is true and correct.

I would like to receive notice of the appeal hearing by:

☐ Email (address)_____

☐ US Mail (address)_____

I understand that I can also contact the City to ask about the hearing date and time.

Signature:_____ Date:_____