

College of Built Environments and School of Public Health

UNIVERSITY *of* WASHINGTON

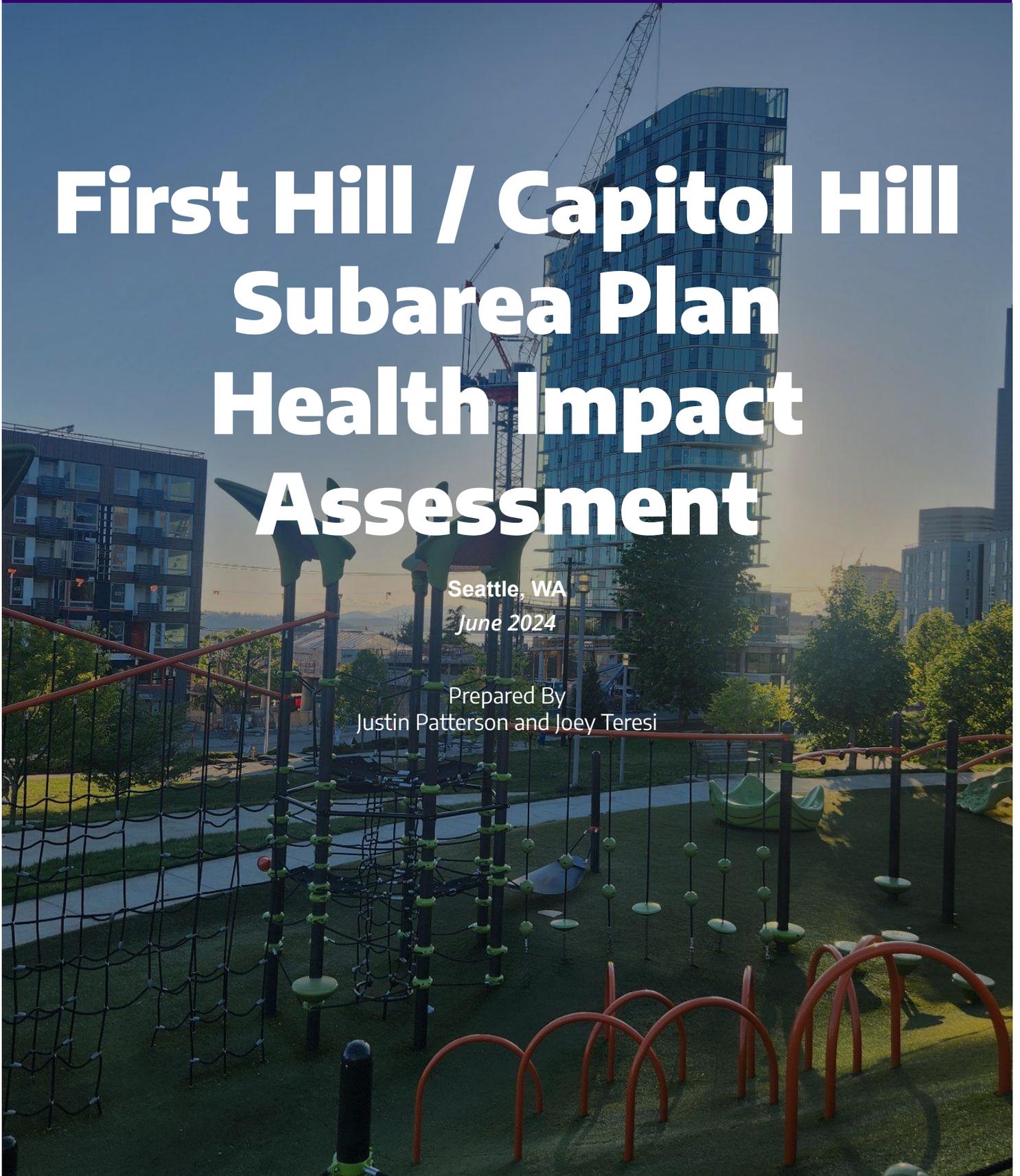


# First Hill / Capitol Hill Subarea Plan Health Impact Assessment

Seattle, WA

*June 2024*

Prepared By  
Justin Patterson and Joey Teresi



# Acknowledgements

## Land Acknowledgement Statement:

The University of Washington acknowledges the Coast Salish peoples of this land, the land which touches the shared waters of all tribes and bands within the Duwamish, Puyallup, Suquamish, Tulalip and Muckleshoot nations.

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## Author Acknowledgment:

This report was written by graduate students as a class project for EnvH/UrbDP 536 Health Impact Assessment in Spring Quarter 2024 at the University of Washington. These students came from numerous programs within the University of Washington, representing the fields of public health, public policy and governance, urban design and planning, landscape architecture, anthropology, and social work.

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**Erica Bush**, MUP, MLA, Urban Centers Planner, Seattle Office of Planning and Community Development

**Jesse London**, MUP, Urban Centers Planner, Seattle Office of Planning and Community Development

**Arthur Wendel**, MD, HIA Class Contributor

## Acknowledgements

### Positionality Statement:

This report was completed by ten graduate students at the University of Washington representing the fields of public health, public policy and governance, social work, anthropology, urban design and planning, landscape architecture, anthropology, and sociology. This report was completed in partial fulfillment of the graduate course requirements for EnvH/UrbDP 536: Health Impact Assessment. We acknowledge that our pursuit of higher education is a privilege that is disproportionately shared in our society. Our role as students allows us the opportunity to devote time and resources toward better understanding and addressing the potential health equity impacts of proposed plans and policies. Not all report contributors are familiar with the Capitol Hill and First Hill neighborhoods and the surrounding area. The findings and recommendations of this report were informed by educational and personal experiences, online research, collaboration with individuals familiar with the project area, and, for some, limited experiences with the neighborhoods. Collaboration with local community groups and engagement with local residents to understand their needs is also essential, however, due to time constraints, the UW student team was unable to incorporate community engagement.

### Equity Statement:

This report includes equity considerations specific to housing, jobs and the economy, mobility, climate and the environment, and sociocultural and community services specific to the First Hill / Capitol Hill Subarea Plan. We recognize that structural racism and discriminatory housing practices have had disproportionate and negative impacts to Black, Indigenous, and communities of color, immigrants and refugees, and other frontline communities in Seattle. Historical practices such as redlining and racial covenants, hazardous facility siting, and highway expansion have led to inequitable outcomes with intergenerational consequences. More recently, urban revitalization efforts and restrictive zoning policies have led to gentrification of previously affordable areas and subsequent displacement of lower income residents. Displaced residents are subsequently concentrated into less desirable urban areas. Continued community engagement between the City of Seattle Office of Planning and Community Development and neighborhood residents is needed to ensure equitable policy impacts. Use of online interactive databases, such as the City of Seattle's [Racial and Social Equity Index Map](#) or Department of Health's [Washington Environmental Health Disparities Map](#), is also appropriate for future subarea planning and decision making.

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# Executive Summary

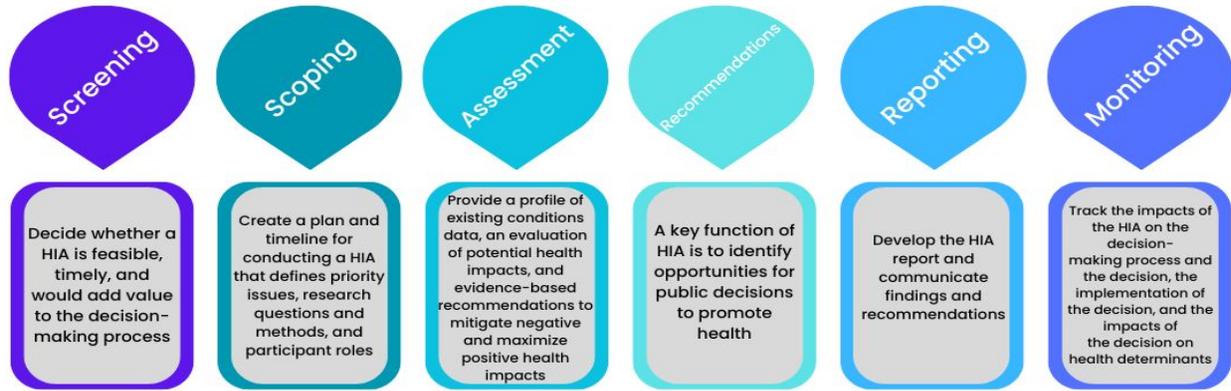
## Project Background

The connections between the built environment and health have been extensively documented in the academic literature. The relationship between public health and urban planning has been evident throughout human history and their synergy is needed to create sustainable and equitable cities. Projects and policies with long-term impacts to urban environments must consider the potential for adverse health impacts to local populations. As such, collaboration between public health professionals and city planners is necessary to create healthy environments for all. A Health Impact Assessment (HIA) is intended to provide decision makers and community members with the likely public health impacts of a proposed decision, policy, or development, as with a city comprehensive plan.

The City of Seattle Office of Planning and Community Development (OPCD) is currently finalizing a draft document—the [One Seattle Plan Comprehensive Plan Update](#)—that will serve as an updated roadmap for the city’s future growth (OPCD, 2024). This document represents an update to the [Seattle 2035 Comprehensive Plan](#), adopted in 2016 (OPCD, 2020). These documents include subarea planning for different neighborhoods of Seattle, including Capitol Hill and First Hill. An HIA of the First Hill / Capitol Hill Subarea Plan (henceforth referred to as the “Subarea Plan”) was deemed appropriate after University of Washington graduate students met with representatives from OPCD. Typically, HIAs are implemented for completed drafts of proposed plans or projects. For this assessment, the students relied on the neighborhood plans within the *Seattle 2035 Comprehensive Plan* that make up the existing First Hill / Capitol Hill Subarea Plan as it forms the basis of the pending Subarea Plan update. Between April and June 2024, a rapid HIA was generated to address the potential health equity impacts of the Subarea Plan.

# Executive Summary

## Methods and Process



### The HIA Process

Adapted from Human Impact Partners, 2021

The HIA team, consisting of University of Washington graduate students across the School of Public Health and College of Built Environments, identified seven focus areas which are examined as three distinct chapters in this HIA:

Housing and Economic Development  
Mobility, Environment, and Climate  
Sociocultural and Community Services

The HIA Team conducted an extensive literature review for each focus area to assess potential positive and negative health impacts of the City of Seattle’s draft First Hill / Capitol Hill Urban Center Plan. Additionally, the team reviewed appropriate reports and data from the Seattle Department of Transportation (SDOT) and Office of Planning and Community Development (OPCD), completed a review of the existing conditions of the area via a review of the previous City of Seattle’s Capitol Hill and First Hill Subarea Plan, and participated in a site visit to the Capitol Hill and First Hill neighborhoods.

The HIA team followed guidance from the class professor, Dr. Andrew Dannenberg, and from Human Impact Partners, a nonprofit organization, to structure the Assessment.

# Executive Summary

## Key Findings



### Chapter 1: HOUSING AND ECONOMIC DEVELOPMENT

- **Housing:** Stark demographic and density differences between “North” Capitol Hill and the rest of Capitol and First Hill.
- **Housing:** Diverging priorities and trade-offs: increasing density and maintaining the neighborhood’s “character.”
- **Housing:** Growing unaffordability of Seattle and concerns with gentrification & displacement.
- **Economic:** In Capitol Hill, the percentage of workers in poverty is 6%, 44.4% work part-time.
- **Economic:** Imminent need for living-wage jobs (54% survey response) in the area.
- **New Development & Climate Change Mitigation:** Disparities between North and South Capitol Hill in access to air conditioning and climate-smart building attributes



### Chapter 2: MOBILITY, ENVIRONMENT, CLIMATE

- **Mobility:** Last year First Hill / Capitol Hill accounted for roughly 1340 collisions, including 191 serious injuries, and 9 fatalities. This shows the need for traffic reduction and traffic calming and reinforces the need for increasing safe pedestrian infrastructure
- **Environment and Climate:** Since 2016, the Capitol Hill and First Hill neighborhoods have experienced a significant decline in tree canopy cover, with a net loss of 30 acres and a 2.7% relative decrease. The southwest area of First Hill saw a substantial reduction in tree canopy, ranging from 15% to 26%.



### Chapter 3: SOCIOCULTURAL AND COMMUNITY SERVICES

- **Public Safety:** In 2022, Capitol Hill had one of the highest neighborhood rates of motor vehicle theft. Motor vehicle theft crimes in Capitol Hill increased from 314 in 2022 to 448 in 2023.
- **Public Safety:** Based on vox populi interviews in the 2023 Capitol Hill EcoDistrict report, interviewees were more concerned with community stewardship, connectedness, and public investments rather than crime and policing.
- **Social Cohesion and Food Access:** On average, First Hill has a more diverse demographic; lower median household income respective to Seattle’s; and higher grocery costs.
- **Mental Health:** Lowest income adults and lesbian, gay, and bisexual adults were more likely to report frequent mental distress than highest income and heterosexual adults.

# Executive Summary

## Priority Recommendations



### Chapter 1: HOUSING AND ECONOMIC DEVELOPMENT

- Upzoning Residential Areas to increase density, include more multi-size units, and create additional commercial space where density is currently lower.
- Create partnerships between the city and local organizations to provide tax incentives for minority-owned businesses, especially the LGBTQ+ community.
- Make elements of the Green Building Permit Incentives mandatory. For example, new buildings should have to include at least two of the following green incentives: installing a heat pump, installing a rainwater collection system, or incorporating a green roof



### Chapter 2: MOBILITY, ENVIRONMENT, CLIMATE

- Install surge/variable pricing for on-street parking areas
- Establish and prioritize safe connections to new and existing green spaces by implementing the mobility recommendations in report and the Seattle Neighborhood Greenways program
- Invest and increase the amount of protected bike lanes in the neighborhood



### Chapter 3: SOCIOCULTURAL AND COMMUNITY SERVICES

- Work with Seattle Dept of Transportation and Seattle Public Utilities to install temporary light towers throughout the Urban Center to reduce property crimes, with a focus on installation during the darker winter months.
- Work with local farmers market associations to establish a regular farmers market within First Hill.
- Expand no-fee mental and behavioral health services, especially for vulnerable groups such as LGBTQIA+, low-income, and youth residents.

**Note that additional findings from each focus area are discussed in greater detail at the end of each respective chapter.**

# Executive Summary

## Priority Recommendations

| Recommendation   | Details   | Possible Implementing Agencies   |
|--|---|--|
| Upzone Residential Areas                                     | Increase density, particularly by encouraging multifamily housing, in areas that are currently less dense   | City of Seattle Office of Planning and Community Development, Mayor's Office, Seattle Real Estate Services                                     |
| Tax Incentives for Historically-Marginalized Business Owners | Create partnerships with local business groups to promote businesses that are owned or operated by minority groups, particularly LGBTQIA groups   | Washington Department of Revenue, City of Seattle City Finance   |
| Mandate Green Building Permit Incentives                     | Seek to make any and all possible elements of GBP process mandatory for all new developments  | Seattle Department of Construction and Inspections   |
| Create Variable Parking Pricing                              | Install variable pricing infrastructure in all major street parking areas, particularly near Cal Anderson Park  | Seattle Public Utilities, Seattle Department of Transportation   |
| Connect Green Spaces   | Establish safe connections to existing green spaces through expanding the Seattle Neighborhood Greenways program  | Seattle Parks and Recreation, Seattle Office of Planning and Community Development, Seattle Department of Transportation                       |
| Invest in Protected Bike Lanes                               | Add protected bike lanes where none are present and add protective barriers to existing unprotected bike lanes  | Seattle Office of Planning and Community Development, Seattle Department of Transportation, Seattle Department of Construction and Inspections |
| Install Crime-Deterrent Lighting                             | Install temporary light towers to reduce property crimes, following a Crime Prevention Through Environmental Design (CPTED) approach. Work with local naturalist groups to address increased light pollution and potential wildlife impacts.. | Seattle Department of Transportation, Seattle Police Department, Birds Connect Seattle, The Nature Conservancy in Washington                   |
| Establish a Farmers Market in First Hill                     | Set up and support a regular Farmers Market in the First Hill neighborhood  | Pike Place Market Express Farmers Markets Program  |
| Expand Mental Health Services                                | Expand no-fee mental and behavioral health services, especially for vulnerable groups such as LGBTQIA+, low-income, and youth residents   | Public Health Services of King County, King County Mental Health Services  |

# Executive Summary

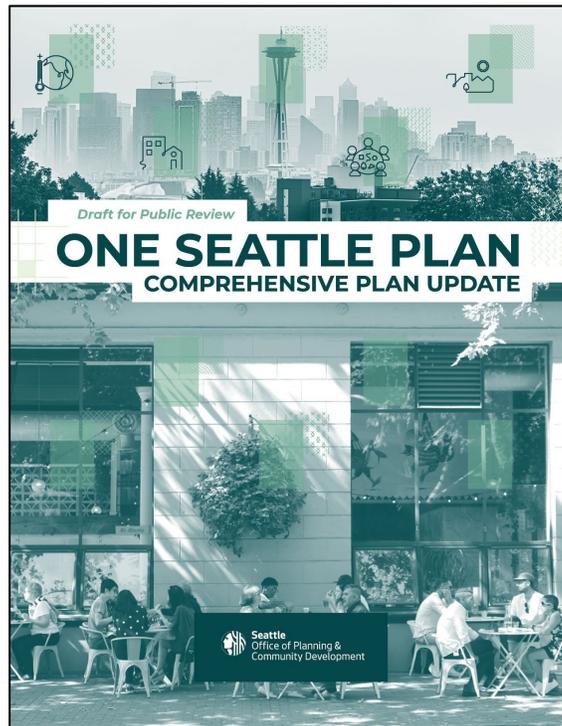
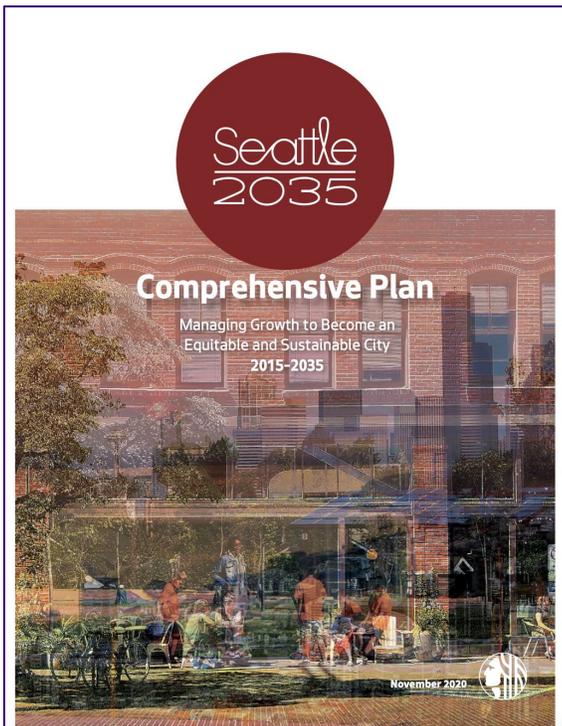
## Conclusion

This report was created for partners at the Seattle Office of Planning and Community Development. It is our suggestion that this report be shared with additional stakeholders and community members as future decisions are determined for the City of Seattle's draft Comprehensive Plan. There is an excellent opportunity to help shape the future of development in the Capitol Hill and First Hill neighborhoods during the drafting and review process for the long-range Comprehensive Plan. Continuous planning, collaboration, communication, and community involvement in the development of this plan will assist in creating a healthy, lively, and equitable subarea. This HIA provides recommendations that have the potential to impact health outcomes for First Hill, Capitol Hill, and the greater Seattle area.

# Introduction

## Project Background

The City of Seattle Office of Planning and Community Development (OPCD) is currently finalizing a draft document—the [One Seattle Plan Comprehensive Plan Update](#)—that will serve as an updated roadmap for the city’s future growth (OPCD, 2024). This document represents an update to the [Seattle 2035 Comprehensive Plan](#), adopted in 2016 (OPCD, 2020). These documents include subarea planning for different neighborhoods of Seattle, including Capitol Hill and First Hill. A Health Impact Assessment (HIA) of the First Hill / Capitol Hill Subarea Plan (henceforth referred to as the “Subarea Plan”) was deemed appropriate after University of Washington graduate students met with representatives from OPCD. Typically, HIAs are implemented for completed drafts of proposed plans or projects. For this assessment, the students relied on the neighborhood plans within the *Seattle 2035 Comprehensive Plan* that make up the existing First Hill / Capitol Hill Subarea Plan as it forms the basis of the pending Subarea Plan update. Between April and June 2024, a rapid HIA was generated to address the potential health equity impacts of the Subarea Plan. This HIA represents the final deliverable of a Spring 2024 graduate course offered jointly by the University of Washington’s Department of Urban Design and Planning and the Department of Environmental and Occupational Health Sciences. The student authors represent several professional fields, including public health, public policy and governance, social work, anthropology, urban design and planning, and landscape architecture.



Cover pages of the older *Seattle 2035* (left) and newer draft *One Seattle Plan* (right) comprehensive plans.

# Introduction

## Urban Center Background

The First Hill / Capitol Hill Urban Center comprises four existing Urban Villages, including Capitol Hill, 12th Avenue, First Hill, and Pike/Pine. These Urban Villages comprise a multitude of different census blocks. The City of Seattle provides an online interactive map titled “[2020 Census Blocks - Seattle](#)” including specific block numbers for these Urban Villages. The First Hill / Capitol Hill Urban Center is the second largest Urban Center in the City of Seattle and contains a distinct mix of land uses and population densities (OPCD, n.d.-a). Please note that the exact boundaries of the Urban Center may differ based on the sources of information used in this assessment.

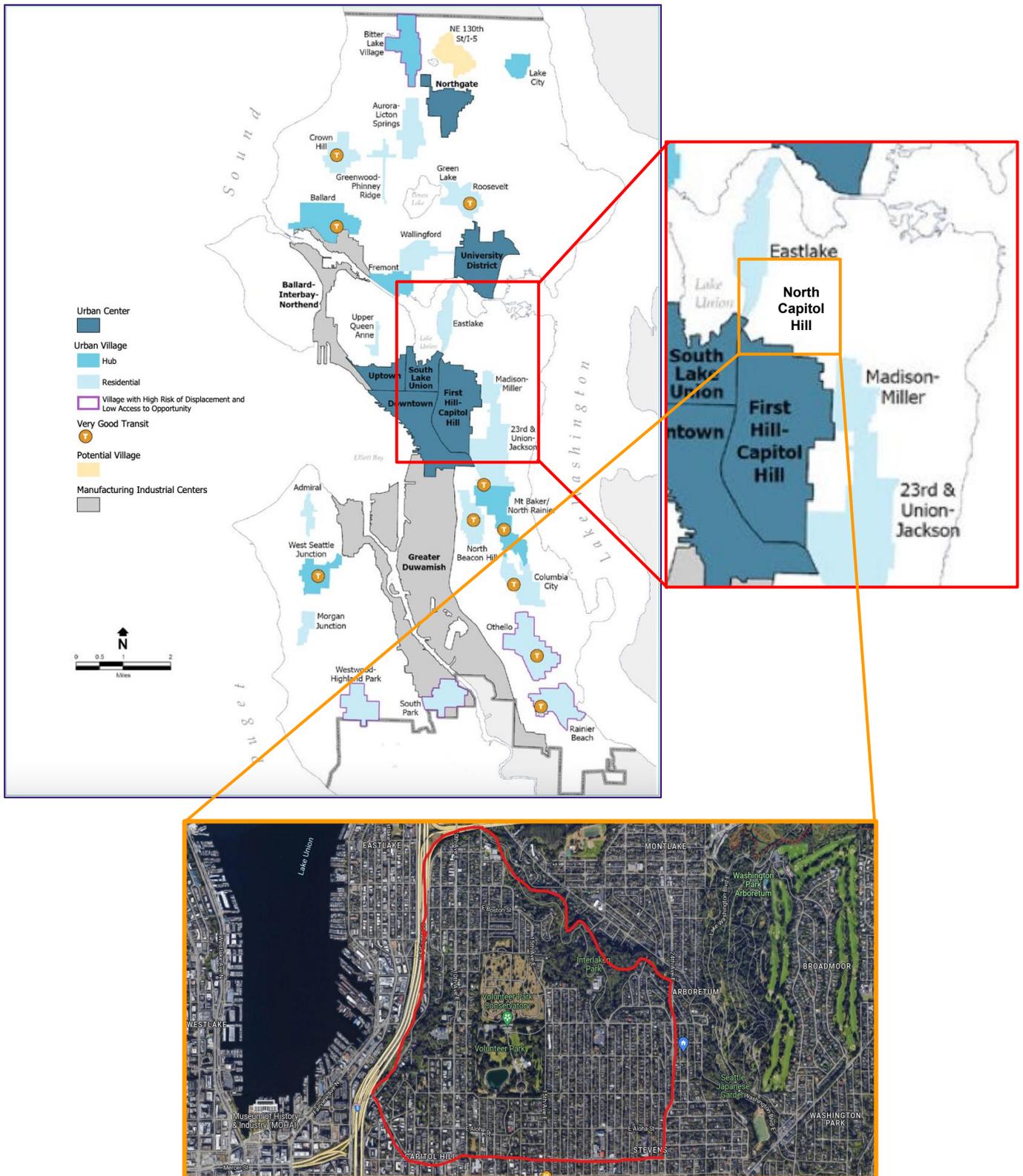
The Capitol Hill Urban Village is approximately bounded by Interstate 5 to the west, East Howe Street to the north, 15th Avenue to the east, and East Pike Street and East Madison Street to the south. It is primarily residential with retail businesses and some institutions. Historically, car dealerships, repair shops, and other large commercial buildings dominated the area in the early 20th century and were replaced by apartment buildings, smaller shops and studios, and restaurants (Caldbeck, 2011). At times in this report, we distinguish North Capitol Hill from the rest of Capitol Hill due to notable differences in population demographics, household median income, and other factors. North Capitol Hill includes the area north of Roy Street, including the area around Volunteer Park, and the areas south of Interlaken Park and the State Route 520 Bridge. Please note that while the majority of this area is not located within the First Hill / Capitol Hill subarea, discussion of the North Capitol Hill neighborhood was deemed an important reference area for the Capitol Hill Urban Village.

In addition, a mixed use retail area is present along the 12th Avenue Urban Village. The 12th Avenue north-south corridor runs from Volunteer Park down to Yesler Terrace, extending through both the Capitol Hill and First Hill Urban Villages. Moreover, the Pike/Pine Urban Village is primarily residential with different retail businesses. This east-west corridor roughly extends from Interstate 5 to 16th Avenue and separates the Capitol Hill and First Hill Urban Villages.

The First Hill Urban Village is approximately bounded by Interstate 5 to the west, East Pike Street and East Union Street to the north, 12th Avenue to the east, and James Street and East Jefferson Street to the south. It primarily consists of medical and educational campuses with a high density residential district and some retail businesses. The southernmost part of the First Hill neighborhood includes Yesler Terrace, which contains a hospital, affordable housing, an elementary school, community centers, parks, and a juvenile court and detention center. Yesler Terrace is approximately bounded by Interstate 5 to the west, James Street and East Jefferson Street to the north, 12th Avenue to the east, and South Jackson Street to the south.

The First Hill / Capitol Hill Subarea and surrounding area is depicted in Figure 0 below. A 2020 land use map is provided in Figure 1.

# Introduction



**Figure 0.** View of the First Hill / Capitol Hill subarea outlined in red (top) (Figure 4, OPCD, 2020) and the approximate area of the North Capitol Hill neighborhood outlined in orange (bottom) (Ewing & Clark, n.d.).

# Introduction



**Figure 1.** 2020 land use map of the First Hill / Capitol Hill Urban Center (OPCD, n.d.-a).

# Introduction

## Urban Center Demographics

Data on the demographics of the First Hill / Capitol Hill Urban Center was recently updated by the U.S. Census Bureau's 2020 Decennial Census and 2020 American Community Survey. Based on Decennial Census data, the First Hill / Capitol Hill subarea had a 2020 population of 49,174 people, with its four urban villages comprising 22,330 (Capitol Hill), 6,737 (12th Avenue), 8,142 (Pike/Pine), and 11,965 people (First Hill) (COPD, 2021). General demographics for the Capitol and First Hill area show clear distinctions between different areas of the neighborhood. Data is presented on basic demographic factors such as age, race, income, and language fluency. Additional factors reviewed include housing-related metrics, such as housing type and existing density, household size, and rent burden.

According to the City of Seattle's *Urban Centers and Villages - Census 2020 First Look* online map, the First Hill / Capitol Hill Urban Center's 2020 population (49,174) increased by 37% since 2010 (City of Seattle, n.d.-f). A 37% population increase since 2010 reflects significant urban growth, with notable rises in diversity and working-age adults. The proportion of the population who identified as people of color (POC) in 2020 was 20,514 (41.7% of the total 2020 population) and had increased by 75.6% since 2010 (City of Seattle, n.d.-f).

The racial distribution of the First Hill / Capitol Hill Urban Center is comparable to the rest of the City of Seattle and has followed the city's trends between 2015 and 2020. The proportion of the population who are Asian alone, Latino alone, or multi-racial has increased moderately while the proportion of the population who are Black alone has decreased moderately. See Table 1 below for racial distributions documented for 2020 (OPCD, n.d.-a). See Figure 2 below for changes in race/ethnicity between 2010 and 2020 for residents in the First Hill / Capitol Hill Urban Center compared to the rest of the city (OPCD, n.d.-a). In addition, Figure 3 shows a map of the Urban Center's 2020 racial distribution (OPCD, n.d.-a).

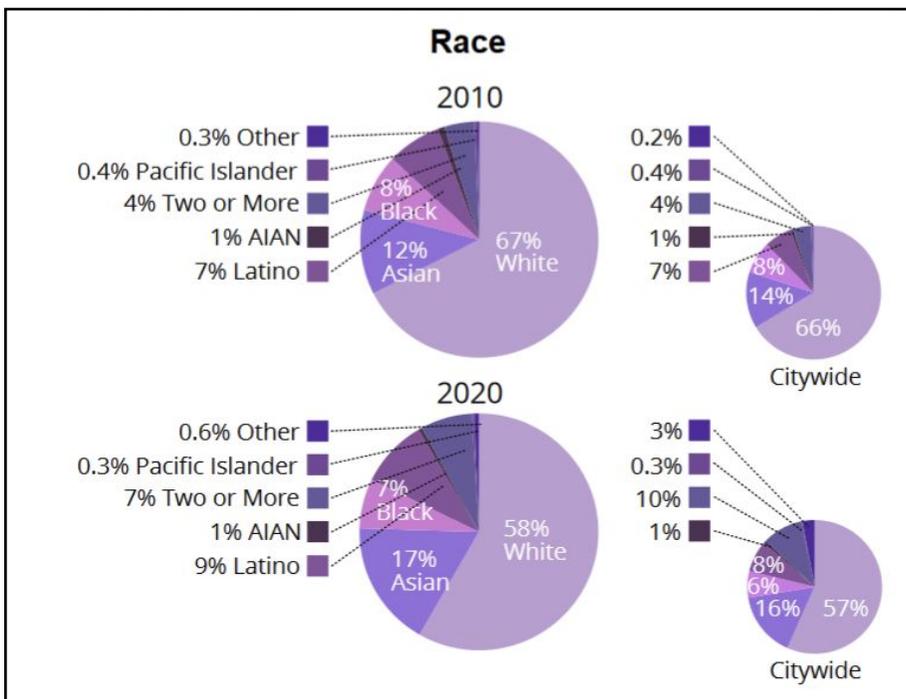
Relative to the city as a whole, the First Hill / Capitol Hill Urban Center has a relatively high proportion of working-age adults and a much lower proportion of youth. The proportion of youth that are POC is increasing faster in First Hill / Capitol Hill than for the city as a whole although the rate of growth has remained constant between 2015 and 2020. First Hill / Capitol Hill has about the same proportion of seniors to the city as a whole. The average household size is much smaller than citywide, with more small-size apartment units (e.g., studios and one-bedroom units), and home ownership is similarly much lower than citywide (OPCD, n.d.-a).

# Introduction

## Urban Center Demographics

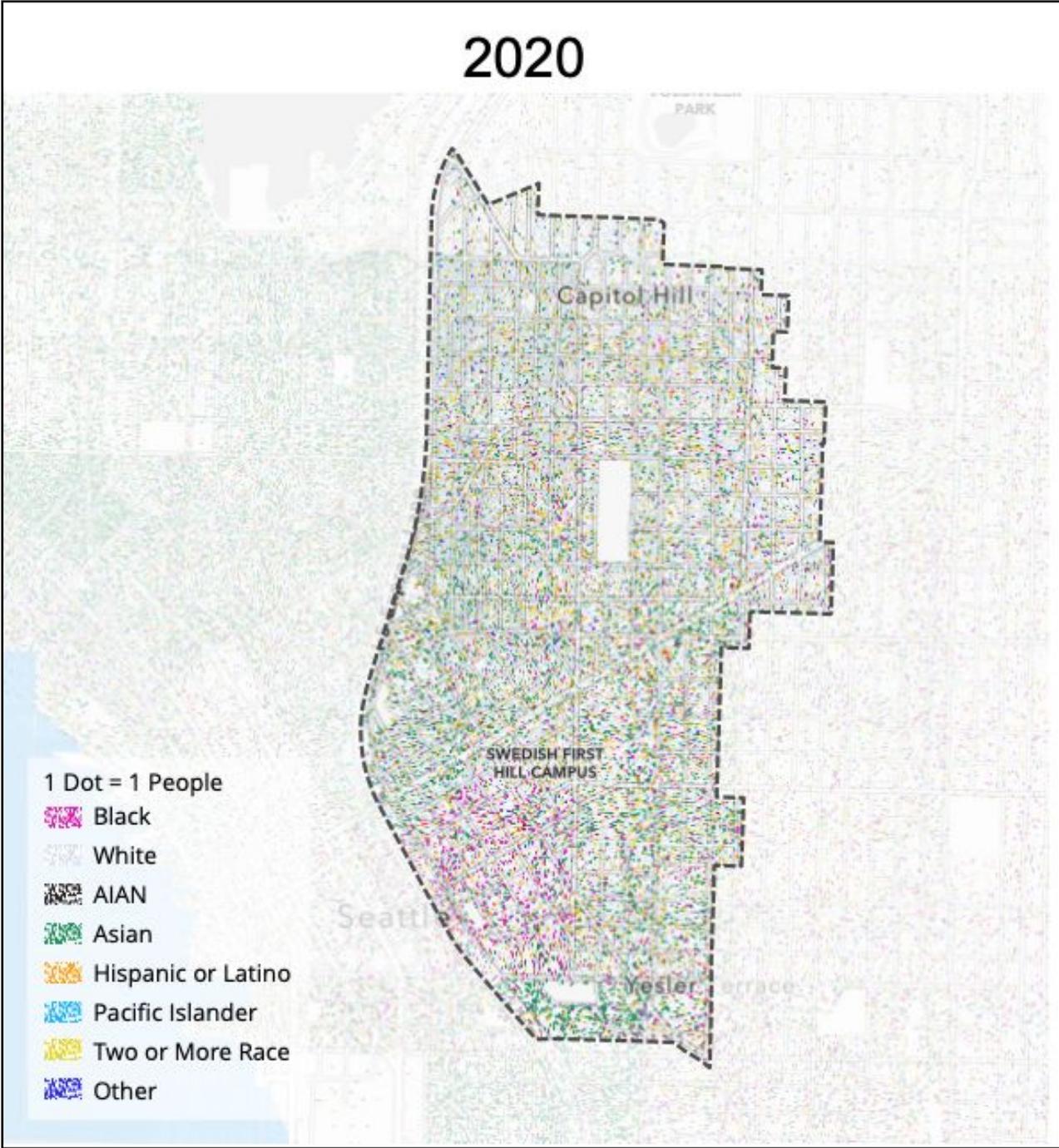
| ACS Neighborhood Profile (2022)   | First Hill | Capitol Hill | North Capitol Hill | Seattle   |
|-----------------------------------|------------|--------------|--------------------|-----------|
| Population                        | 19,119     | 25,435       | 4,756              | 741,171   |
| Median Age                        | 30.3       | 32           | 37.8               | 36.5      |
| Children under 18                 | 776(4%)    | 646 (3%)     | 337(7%)            | 14%       |
| Older Adults (65+)                | 2.2k(12%)  | 1.5K(6%)     | 530(11%)           | 13%       |
| Median Household Income           | \$92,654   | \$91,031*    | \$161,926          | \$120,338 |
| Income < 200% FPL                 | 25%        | 22%          | 12%                | 18%       |
| People of Color                   | 50%        | 40%          | 28%                | 39%       |
| Speak English Less Than Very Well | 7%         | 3%           | 1%                 | 7%        |
| Bachelor’s Degree or Higher       | 63%        | 72%          | 82%                | 67%       |
| Population with a Disability      | 13%        | 12%          | 8%                 | 10%       |

**Table 1.** Neighborhood Demographics (City of Seattle, n.d.-c).



**Figure 2.** Changes in race/ethnicity between 2010 and 2020 for residents in the First Hill / Capitol Hill Urban Center (left) compared to citywide (right). Data sources are from the 2010 Decennial Census, 2020 Decennial Census, and 2016-2020 American Community Survey (OPCD, n.d.-a).

# Introduction



**Figure 3.** 2020 racial distribution of the First Hill / Capitol Hill Urban Center (OPCD, n.d.-a).

# Introduction

## Purpose and Scope

A Health Impact Assessment (HIA) is intended to provide decision makers and community members with the likely public health impacts of a proposed decision, policy, or development. An HIA places health at the table through collaboration between public health professionals, urban planners, community members, and other stakeholders. The HIA process is best utilized when there is enough time to inform decision makers of these impacts. As the City of Seattle completes its required updates to the Comprehensive Plan for the city, many neighborhoods of the area are also required, or compelled, to complete a Subarea plan. The Subarea plan should align with the Comprehensive Plan, but create specific and relevant goals and policies with which to enhance the neighborhood's adherence to the overall Comprehensive Plan and to benefit the residents of the neighborhood.

At the time of this HIA, the City of Seattle OPCD is developing the Subarea plan for First Hill / Capitol Hill. The purpose of this HIA is to present recommendations to help inform the goals and policies of the Subarea plan. Within the context of these recommendations, the HIA is focused solely on promoting positive public health outcomes, as well as mitigating any potential negative health outcomes that are currently affecting the neighborhoods and communities in the area.

To complete this HIA, the scope was limited to major aspects of the built environment and their effect on the subarea community. Scope was also limited by normal project constraints, such as time and resources. As such, scope was limited to the seven focus areas, grouped into three chapters, with recommendations for each focus area.

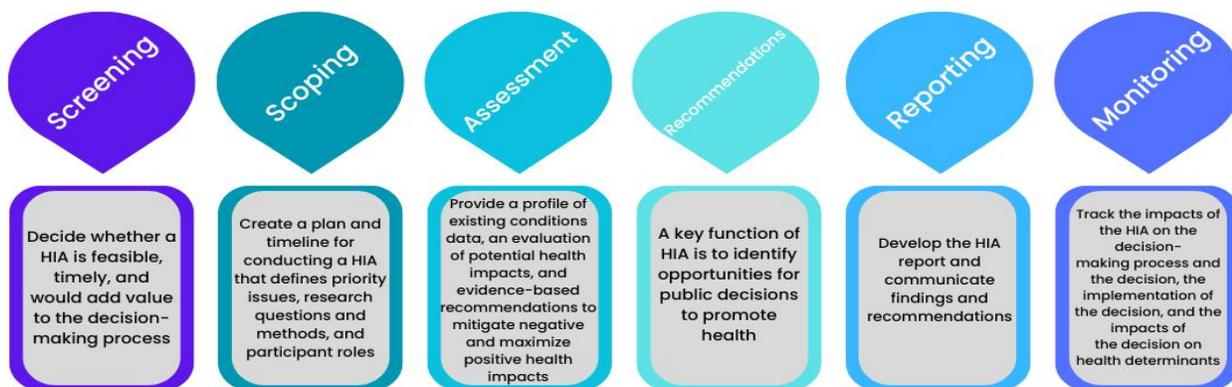
## Why Health Matters in the Context of Urban Planning

The relationship between public health and urban planning has been evident throughout human history and their synergy is needed to create sustainable and equitable cities. According to Kochtitzky et al. (2006), these fields share a similar vision: improving human well-being, addressing public needs and service delivery, focusing at the population level, and leveraging community-based participation (Kochtitzky et al., 2006). Connections manifest when considering the links between creating green spaces and physical activity, social cohesion, and improved mental health outcomes; drinking water and sewage system infrastructure design and the prevention of infectious diseases; and land-use and zoning ordinances determining health exposures to hazardous industries (Kochtitzky et al., 2006). The environmental conditions in which people live, learn, work, play, and pray are termed social determinants of health (SDOH) and influence human health, wellbeing, and quality of life (Department of Health and Human Services, n.d.). This assessment will attempt to bridge the gap between these two fields.

# Introduction

## Methods - 6-Step HIA Process:

1. **Screening:** the identification of projects or policies for which an HIA would be useful. Screening was conducted through a meeting with representatives from the City of Seattle Office of Planning and Community Development (OPCD) to ascertain whether an HIA would contribute to the draft First Hill / Capitol Hill Subarea Plan.
2. **Scoping:** the identification of which health effects to consider specific to the HIA. The UW HIA Team engaged in a collaborative class exercise to determine health and equity impacts from proposed subarea planning. Based on a synthesis of different related human health and wellness outcomes, the following seven focus areas were identified: Housing, Economic Development, Mobility, Environment, Climate, Sociocultural Services, and Community Services.
3. **Assessment:** the review and analysis of information to assess populations impacted and possible health effects as a result of the HIA. The UW HIA Team performed a literature review and accessed a variety of online data to sources to conduct a baseline assessment of the Subarea. In addition, a site visit led by the OPCD project collaborators was conducted on May 2, 2024 to observe and document conditions at the Subarea.
4. **Recommendations:** the development of recommendations to minimize harmful effects or promote healthful effects of the HIA. Based on the literature review and baseline assessment conducted by the UW HIA team, specific and actionable recommendations were provided for each chapter focus area.
5. **Reporting:** communication of the major findings and recommendations of the HIA to relevant stakeholders. The UW HIA Team presented findings and recommendations of this assessment to OPCD stakeholders on May 30, 2024.
6. **Monitoring and Evaluation:** an assessment of the HIA's effects on the decision making process for a given project and potential impacts of HIA recommendations. This step remains to be completed and will likely be the responsibility of the City of Seattle (UW, 2011).



### The HIA Process

Adapted from Human Impact Partners, 2021

**Figure 4.** HIA Process (UW HIA Team, 2024).

# Introduction

## Overview of Chapter Focus Areas

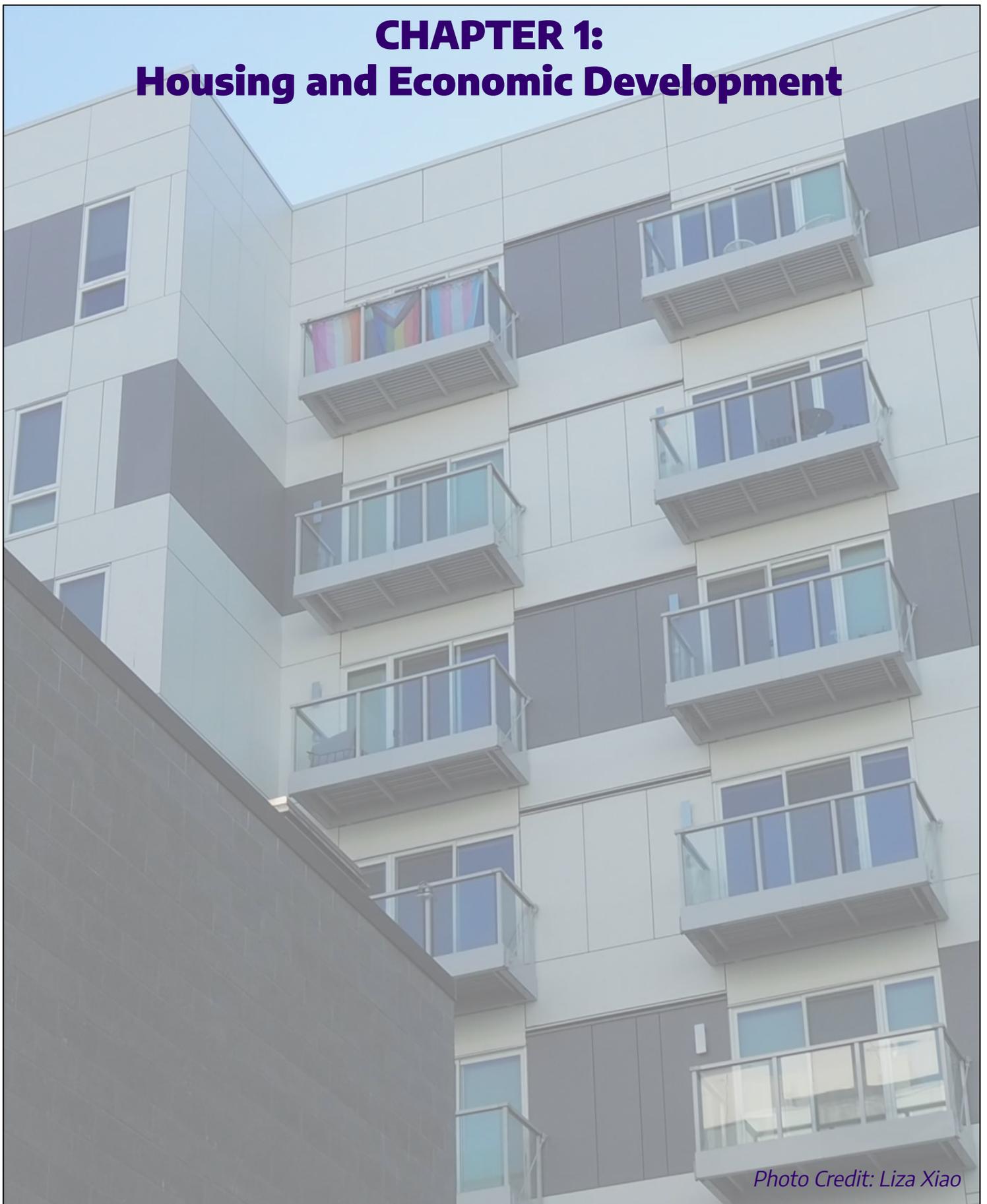
As noted previously, the UW HIA team identified seven core focus areas for review in this Assessment. This was completed through a thorough review of the current Subarea Plan, materials from the City of Seattle OPCD, direction from representatives from OPCD, and current conversations regarding the Seattle Comprehensive Plan update.

In the first weeks of this process, after reviewing the HIA process and the materials noted above, the UW team developed a broad list of issues which would likely have impacts on public health in the area. From there, the team worked to categorize each subtopic into a broader category. These broad categories were then combined into three distinct chapters, where all subtopics and broad categories were both relevant and related. The result of this process is also shown below. It should be noted that equity considerations were considered cross-cutting throughout all focus areas. Equity is a core element of each focus area, as well as public health outcomes, and is addressed across the HIA.

| Housing   | Economic Development  | Mobility  | Environment  | Climate   | Sociocultural  | Community Services   |
|---|---|---|--|---|--|--|
| Affordable housing; rising property values; housing sizes and types; housing/job balance; gentrification and displacement; livability | Income diversity; employment diversity; vacant lot use; economic equity; sustainable employment | Transportation; Pedestrian infrastructure; Traffic safety; Walkability; Commuter friendly transit; Freight mobility; Street cars and other public transit; Biking infrastructure; Micromobility (bike share, scooters); Disability accessibility (ADA); Hospital island; Electric vehicle car charging; Parking | Environmental health - green space, air pollution; Tree canopy; Urban heat island; Wind corridor; Noise pollution; Light pollution | Permeable surfaces, pollution runoff; Water and wastewater; Storm runoff; Climate resilience; Waste reduction; Energy | Distinct character of the area, LGBTQ history; Community arts funding; Community connectivity and cohesion; Restorative justice framework; Historic and cultural preservation; Third places, bars, community spaces; Intergenerational, aging in place | Care for vulnerable populations; Police, public safety; Health care services access; Rehabilitation services; Multilingual resources; Healthy food access; Community gardens; Compost; Child care services; Education; Capital facilities (enclosed public spaces); Heat and cold shelters; Trash, potholes, sanitation; Public restrooms; Parks and public spaces |

**Table 2.** Draft Topics (UW HIA Team, 2024).

# CHAPTER 1: Housing and Economic Development



*Photo Credit: Liza Xiao*

# CHAPTER 1: Housing and Economic Development

## Housing

### Introduction

The 2015 Capitol Hill Comprehensive Neighborhood Plan prioritizes housing by focusing on providing a range of housing types, including single-family homes as well as multi-family structures in order to add to the density in the area. Additional strategies include maintaining and increasing affordable housing for those at or below median income, promoting a broad range of homeownership options, preserving existing housing structures along with their maintenance, and encouraging the blending of historic housing with new housing (OPCD, 2020).

In addition to housing, neighborhood character is maintained through promoting existing business growth and centering the employment, income, and movement needs of existing populations. This chapter focuses on housing and related health impacts that are impacted by affordable housing and density, maintenance considerations, as well as construction concerns. Additionally, we discuss the role of business, labor, and income as integral parts of neighborhood integrity and identity and briefly cover vacant lots and opportunities for new development.

|                         |   |
|-------------------------|---|
| <b>HOUSING GOAL</b>     |   |
| <b>CH-G3</b>            | A community with a full range of housing types from single-family homes to multifamily contributing to a diverse, densely populated neighborhood. |
| <b>HOUSING POLICIES</b> |   |
| <b>CH-P11</b>           | Seek tools to retain and increase housing affordable to households with incomes at and below the median income.                                   |
| <b>CH-P12</b>           | Strive to preserve and provide a variety of housing types, including some single-family and other small-scale dwellings.                          |
| <b>CH-P13</b>           | Encourage a range of homeownership options for households with a broad spectrum of incomes.   |
| <b>CH-P14</b>           | Encourage the preservation of existing housing structures and the maintenance of properties.  |
| <b>CH-P15</b>           | Encourage the development of high-quality new housing that blends with historic housing.  |

**Figure 5.** First Hill / Capitol Hill Subarea Plan (OPCD, 2020).

# CHAPTER 1: Housing and Economic Development

## Literature Review - Housing

### *Capitol Hill: Vision and Implementation Report*

In the fall of 2023, Capitol Hill EcoDistrict completed a report titled “Public Life in Capitol Hill, Seattle: A Vision and Implementation Report” (2023). This report included data from literature reviews as well as some baseline studies with community input to assess how existing space was used and discuss opportunities for further social interaction. Parks, Social Spaces, and Safety were also discussed in this report, but are covered in Chapter 2 of this HIA.

### *North/South Capitol Hill Disparities*

Most significantly, the report highlighted stark differences between North and South Capitol Hill, which is reflected in the demographics above. This divide included income disparities, racial and ethnic makeup of the area, use of social services, access to green space (which is also discussed in Chapter 3), public school enrollment, ownership vs. rental of housing, along with other factors. In general, residents of North Capitol Hill experience safer and healthier housing environments. Residents in South Capitol Hill along with unhoused individuals also faced greater stressors in seeking shelter during high-heat events (although it is not clear what existing access to cooling centers or temporary shelters is currently available). According to the One Seattle plan, South Capitol Hill has also contributed far more to the Mandatory Housing Affordability plan than North Capitol Hill (Capitol Hill Ecodistrict, 2023).

### *Recommendations from EcoDistrict Report*

The EcoDistrict Report provided two recommendations directed specifically at housing concerns, the first recommendation, “Invest in Infrastructure to Pace Growth,” prioritizes government supported infrastructure, living wage jobs, coordinated transit, and the accessibility of public services for vulnerable populations. Additionally, researchers found that “housing remains a primary need,” but that community resiliency must be a priority along with housing stock increases. The second housing-related recommendation, “Study Area Median Income (AMI) by geography and race and invest in family-sized housing,” emphasizes the need for affordable housing that is felt throughout the city. Mapping also indicated a lack of family-sized units. Researchers recommended “Eliminating single family zoning” in the North region, in order to increase density and distribute the impact of housing demands, and to diversify income levels in the area.

# CHAPTER 1: Housing and Economic Development

## Literature Review- Housing

### *Health Impact*

Higher rent burdens are associated with worse health conditions and a likelihood to postpone medical services, on account of financial issues. Money spent on housing may lead to less expendable income for food and healthcare services. High housing costs may also result in substandard housing conditions, overcrowding, longer commutes, as well as possibly greater exposure to infectious diseases and fire. Poor mental health and adverse health outcomes has also been linked to unaffordable housing particularly for low to moderate income groups (NYAM, 2016). Stress is a known risk factor for poor pregnancy outcomes, lowered immunity levels, heart disease, and general increased disease burden. Health indicators provided were compiled by King County for their City Health Profiles database, in which they provide information by Health Reporting Area (HRA), including a predefined Capitol Hill area. Data provided is from 2017-2021 reports, including CDC Behavioral Risk Factor Surveillance System (BRFSS), death, and birth records (King County, 2023).

|   | Seattle - Capitol Hill | King County | Washington State |
|---|------------------------|-------------|------------------|
| Uninsured (18-64 yrs)                         | 5.3%                   | 7.3%        | 9.1%             |
| No Flu Shot (18-64 yrs)                       | 58.1%                  | 54.7%       | 59.5%            |
| No Dental Check-up in 1 yr                    | 34.6%                  | 27.8%       | 68.9%            |
| Low Birthweight                               | 7.0%                   | 6.8%        | 6.7%             |
| Obesity                                       | 14.2%                  | 21.1%       | 28.3%            |
| Consumes less than 1 vegetable per day        | 18.9%                  | 17.9%       | 18.2%            |
| Asthma  | 6.8%                   | 9.0%        | 10.0%            |
| Cause of death: Heart Disease                 | 127.9/100k             | 120.5/100k  | 137.9/100k       |
| Diabetes (18+)                                | 4.6%                   | 7.0%        | 9.2%             |
| Chronic Liver Disease & Cirrhosis             | 14.9/100k              | 11.0/100k   | 12.9k/100k       |
| 14+ poor mental health days in the past month | 13.4%                  | 12.9%       | 13.5%            |
| Suicides                                      | 17.7/100k              | 12.3/100k   | 15.9/100k        |

**Table 3.** Health Indicators (King County, 2023).

# CHAPTER 1: Housing and Economic Development

## Literature Review- Housing

### *Housing Conditions and Maintenance*

Prior reports support that poor indoor and outdoor environmental quality can impact health for individuals, causing issues such as increased cases of asthma and elevated blood pressure (NYAM, 2016). As noted in Fig. 7, *Housing and Health Risk Causal Pathway*, poor maintenance can also expose residents to mold and allergens but can also create structural hazards such as fire or flooding hazards.

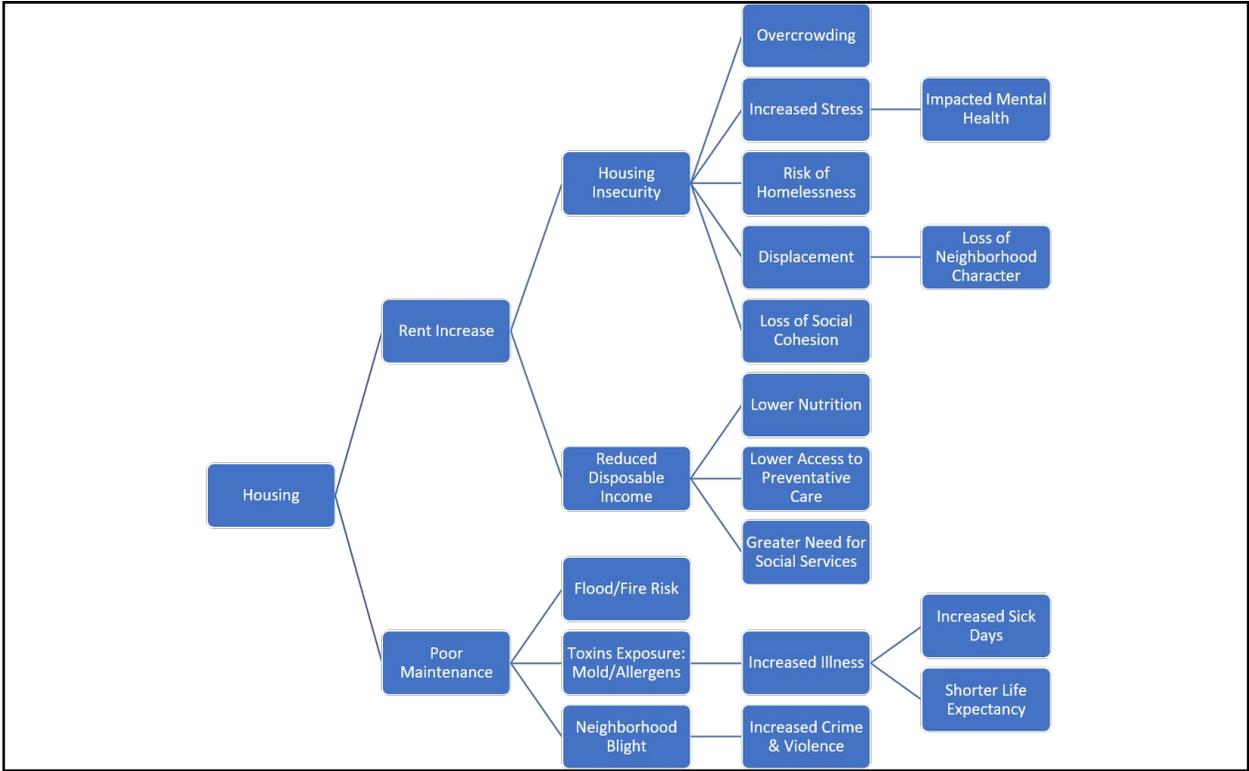
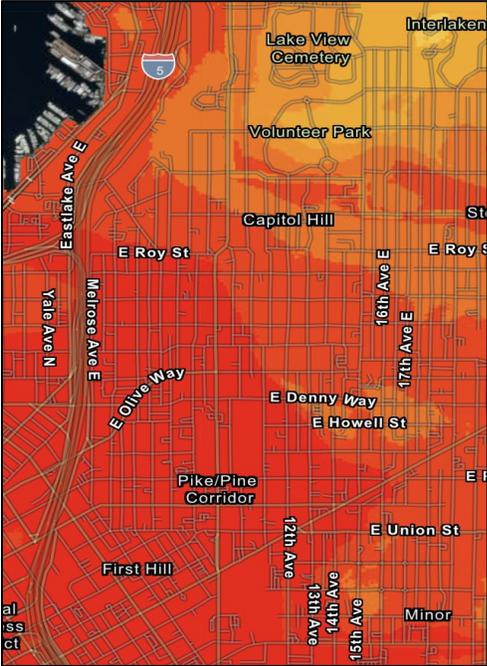
### *Climate Change*

The Pacific Northwest has a reputation for temperate weather, historically experiencing minimal temperature extremes, which has led to most infrastructure being built without heat precautions or mitigation strategies. However, in recent years, climate change has threatened the area with increased heat stress. In 2021, the City of Seattle experienced a record-breaking heat dome, with effects distributed unequally throughout the population. The likelihood of events such as these are roughly 150 times higher today than they were before industrialization (USDA, n.d.). Health disparities are highlighted in neighborhoods that have a history of redlining, which includes Capitol Hill and First Hill, particularly the Southern area of this neighborhood. Residents of streets with fewer trees, greenspaces, and more impermeable surfaces, such as concrete and brick, are more likely to experience heat-related illness than those that live on streets with lush vegetation and shade with less impermeable surfaces. The Southern part of Capitol Hill and First Hill has less vegetation, lower likelihood of air conditioning usage, and increased risk of urban heat island effect than the Northern part. This is shown in the Seattle and King County Heat Watch map (Figure 6) created by Seattle Public Utilities and the Office of Sustainability and Environment. (Heat Watch Seattle & King County Results, n.d.).

# CHAPTER 1: Housing and Economic Development

## Literature Review- Housing

**Figure 6.** Heat Watch Map (Seattle & King County Results, n.d.).



**Figure 7.** Housing and Health Risk Causal Pathway Diagram (UW HIA Team, 2024).

# CHAPTER 1: Housing and Economic Development

## Literature Review- Housing

### *Social Integration*

There have been some demonstrated benefits from neighborhood income variability. Health and wellbeing benefits to residents include lower body mass index, lower diabetes prevalence, and improved mental health in comparison to residents in low-income public housing. Additionally, public housing in higher-income areas experience lower violent crime rates, higher annual household earnings, and higher test scores for public school students. Mixed-income developments have also shown improvements in housing and neighborhood environment. However, there are also some concerns related to mixed income development, including social isolation, particularly for older adults, and uneven power dynamics. There is also evidence that mixed income development does not lead to economic desegregation or poverty alleviation (NYAM, 2016).

### *Displacement*

Displacement refers to the loss of housing or unwilling movement from an area, and is commonly connected to gentrification and the incursion of wealthier residents; discourse on gentrifications is often highly charged and entwined with considerations of race and class. Wealthier residents and rising property taxes make previously affordable neighborhoods no longer hospitable to existing residents, resulting in their displacement from a given area.

Displacement can increase negative health outcomes and financial stress for lower-income residents. Housing costs and costs of commodities increase as new businesses enter an area in pursuit of wealthier residents, all leading to social disruption (NYAM, 2016). Given extreme displacement conditions can result in increased homelessness, this a pervasive issue in Seattle. According to a 2021 study, home evictions pose a major threat to population health, with foreclosures being associated with depression, poorer mental health indicators, and increased risk of suicide (Hoke & Boen, 2021). Mental health outcomes are also exacerbated by negative impacts to physical health, including elevated blood pressure, weight gain, worsened management of diabetes, chronic medical conditions, and higher all-cause and cardiovascular-related mortality (Hoke & Boen, 2021). High-risk behaviors such as alcohol use, drug use, and syringe sharing are also linked with housing instability (Hoke & Boen, 2021). Documented impacts to children include an increased risk of physical abuse and subsequent hospitalization, poorer diet, and elevated cortisol levels (Hoke & Boen, 2021). Critical social services such as emergency shelters and food banks are needed for displaced younger and older residents.

# CHAPTER 1: Housing and Economic Development

## Literature Review- Housing

### *Life Course Approach*

In more recent years, there has been a shift in discourse regarding residents and their movement and selection of housing, away from an economic perspective of a fully informed rational economic actor, as well as away from ideas of a “natural” life course and housing movement through development stages, known as Housing Careers, to a more complicated and comprehensive approach to housing pathways, in consideration of local, social, political, and economic considerations.

*“These variations can have major consequences for residential preferences and behaviours (for example by creating differing patterns of household structure across ethnic groups), as well as for subjective experiences of housing. The pace at which socially accepted housing scripts change over time is also relevant for understanding housing careers” (Coulter, 2023).*

Coulter’s work on a life course approach to housing asks us to consider the ways in which housing careers are structured and not normative and aligns with more recent public health scholarship on life-course approaches to health as well as calls to ensure that cities are built for “Aging in Place” and prioritize multi-generational approaches and opportunities; implied in this discussion is also the guarantee and provision of housing for differently abled individuals.

“Life course approaches to health disparities...explain how socially patterned physical, environmental, and socioeconomic exposures at different stages of human development shape health within and across generations and can therefore offer substantial insight into the etiology of health disparities.” Structures play a critical role in generating inequities in exposures and resources among different social groups, influencing their ability and agency to respond to further exposures. A life course approach helps us to understand the cumulative impact of stressors and exposures over a lifetime through an intersectional lens (Jones et al., 2019).

# CHAPTER 1: Housing and Economic Development

## Baseline Conditions- Housing

As is the case in many urban centers across the country, housing is a critical concern throughout the City of Seattle. According to a recent “Point in Time” count, which sends groups of volunteers across a region on one specific time window, there were 13,368 people experiencing homelessness in Seattle. Of these, 57% were completely unsheltered. (KCRHA, 2022) Numerous policies have been advanced in response to the housing crisis. Generally, most policies agree that increased housing availability is an important metric to address the crisis. On the following page, basic housing metrics are provided. This data provides a small look into general housing types and availability in the First Hill / Capitol Hill area. North Capitol Hill, which tends to have a different demographic makeup and percentage share of homeowners, is also delineated for context. It should be noted that not all of First Hill / Capitol Hill is densely built, so there is room for improvement.

### *New Construction and Continued Growth*

As the First Hill / Capitol Hill neighborhood is one of the most densely-populated areas of the Pacific Northwest, it boasts a large number of residents per sq. acre. Population density has an impact on health, mostly for non-communicable diseases (Greenberg and Schneider, 2023). Areas that are densely populated tend to have higher rates of walking and social interaction, however there are drawbacks to density as well. Achieving increased walkability while maintaining spaces that are not overcrowded can positively impact individual and community health. Our understanding of health impacts on areas of high development and rapid growth, as seen with Capitol Hill and First Hill, is still developing. Caution must be exercised when developing with health risks in mind, as increased green spaces and quality of housing can drive up housing costs. Rate of community change by itself is not likely to impact health, however community ownership of those changes are reported to have positive impacts on health outcomes (Arcaya et al., 2018). Ownership of community change is a relatively new concept that highlights the importance of community involvement and community consensus that planned changes will improve livelihood (Arcaya et al., 2018).

# CHAPTER 1: Housing and Economic Development

## Baseline Conditions- Housing

| ACS Neighborhood Profile (2022)     | First Hill | Capitol Hill | N. Capitol Hill | Seattle     |
|-------------------------------------|------------|--------------|-----------------|-------------|
| Total Housing Units                 | 11,955     | 20,587       | 2,898           | 367,305     |
| Percent Occupied                    | 84%        | 92%          | 93%             | 93%         |
| Renter Households                   | 8.6k(86%)  | 16.3K(84%)   | 1.5k(57%)       | 191.7(56%)  |
| Owner Households                    | 1.5k(14%)  | 2.6K(14%)    | 1.2k(43%)       | 153.5k(44%) |
| Median Gross Rent                   | \$1,980    | \$1,903*     | \$1,959         | \$1,968     |
| Burdened Renters                    | 46%        | 45%          | 34%             | 44%         |
| Burdened Owners                     | 14%        | 30%          | 33%             | 26%         |
| Average Household size              | 1.57       | 1.34         | 1.75            | 2.05        |
| Non-Family Households               | 7.9k (78%) | 16.3k (86%)  | 1.7k (63%)      | 57%         |
| Living Alone (of Non-Family HHs)    | 5,947(76%) | 81%          | 1.3k(77%)       | 140.6k(72%) |
| Housing Characteristics             |            |              |                 |             |
| Vacant                              | 2k         | 2k           | 192             | 27k         |
| 0 Bedrooms                          | 3.3k (28%) | 6.3k (31%)   | 492 (17%)       | 50.2k(13%)  |
| 1 Bedroom                           | 4.7k (39%) | 10k (48%)    | 850 (29%)       | 95.3k(26%)  |
| 2Br+                                | 3.9k(33%)  | 4.3k (22%)   | 1.6k(54%)       | 453.6k(61%) |
| Lacking complete kitchen facilities | 510        | 451          | 0               | 6k          |
| 20-49 Units                         | 2k         | 6.8k         | 454             | 45.7k       |
| 50+ Units                           | 8.5k       | 8.9k         | 123             | 94k         |

**Table 4.** Housing Related Metrics (City of Seattle, n.d.-c).

# CHAPTER 1: Housing and Economic Development

## Baseline Conditions- Housing

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# CHAPTER 1: Housing and Economic Development

## Assessment- Housing

### *Housing Priorities*

According to Mercy Housing Blog quoting from the Economic Opportunity Institute, nearly one million households in Washington are severely cost burdened. This means 31.6% of people are spending 50% of their income on shelter. To complicate matters, it is estimated that Seattle would need to build 1.1 million more homes over the next 20 years to keep up with the demands of a growing population. That is 55,000 homes a year (Mercy Housing, 2024).

| 2022               | People/acre | Housing/Acre |
|--------------------|-------------|--------------|
| North Capitol Hill | 16.8        | 10.2         |
| Capitol Hill       | 58.7        | 47.5         |
| First Hill         | 43.6        | 27.2         |

**Table 5.** People and Housing Density by Acre (City of Seattle, n.d.-c).

Currently, the City of Seattle has a variety of height limits throughout the city and zoning areas. Surveying the Capitol/First Hill area it is obvious that height has been kept at a minimum and it is rare to see any high-rise buildings until one reaches the southernmost First Hill area and particularly as one approaches IH-5 and downtown high-rises.

While high-rise buildings provide an opportunity for additional and varied housing, they can also dramatically change the architectural character of a given neighborhood as well as bring in an influx of new residents. Even well-intended and community driven projects can lead to poor preservation of the existing residents. Currently, the northern Capitol Hill area is the least populated in comparison to southern Capitol Hill and First Hill, both for people per acre and housing per acre. Table 5 provides a summary of people and housing density by acre (City of Seattle, n.d.-c). A zoning map of the Subarea is provided in Figure 8 (SDCI, n.d.-a).

Areas with higher density tend to have people who report higher rates of walking and engaging in physical activity, and maintain lower weights and lower blood pressure. Higher density has also been linked to lower income segregation levels, most likely due to affordable housing initiatives which emphasize class integration. Considerations for increasing density should prioritize affordable housing and building units in order to avoid displacement of both residents and businesses. However, considerations for higher density should take into account risks and harms of overcrowding as well as a loss of green space, which can negatively harm mental health, particularly vulnerable populations (NYAM, 2016).

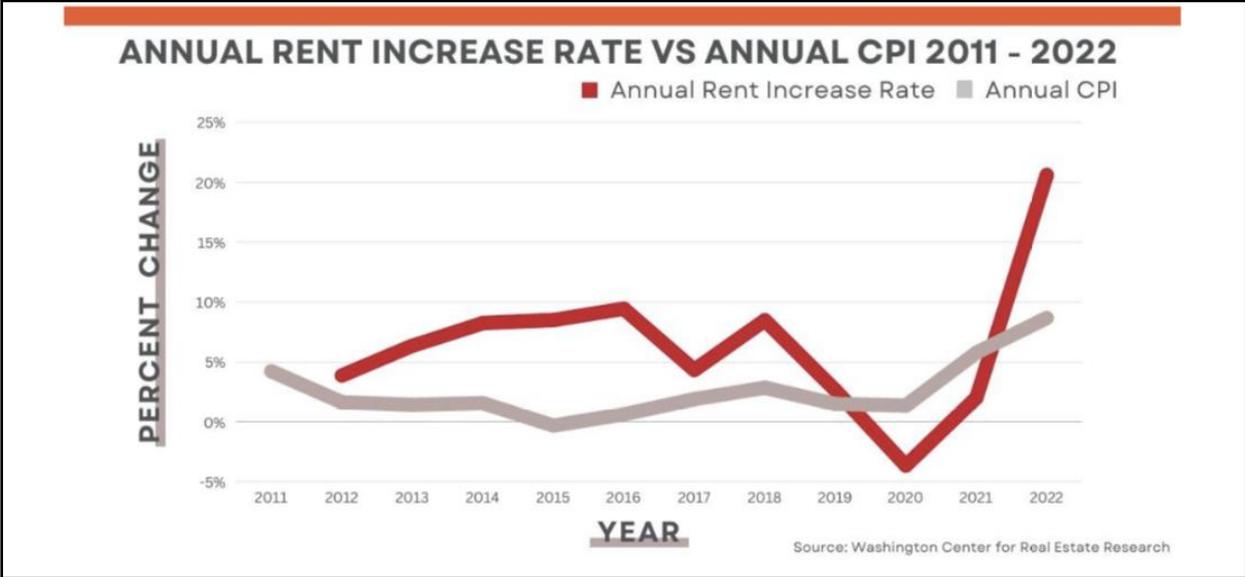


# CHAPTER 1: Housing and Economic Development

## Assessment- Housing

### Affordable Housing

The question of affordable housing is a critical one given the rising housing costs throughout Seattle. Nearly half of all renters and nearly a quarter of all homeowners in the area are rent-burdened (more than 30% of income spent on housing). With ever-increasing property values, this number will only increase and ultimately lead to displacement of residents. This results in instability of the neighborhood and residents, loss of security, and precarity, as well as poor management of resident security and housing tenure for the whole of Seattle. Figure 9 below shows annual rent increase versus annual consumer price index (CPI) values from 2011 to 2022 (WLIHA, 2023).



**Figure 9.** Annual Rent Increase vs. Annual CPI for Washington State (WLIHA, 2023).

# CHAPTER 1: Housing and Economic Development

## Assessment- Housing

Seattle's current affordable housing policy, the Mandatory Housing Affordability (MHA) program stipulates the following:

*“To achieve the goal of providing affordable housing in Seattle, development subject to the MHA requirements must contribute to affordable housing as part of most commercial, residential, or live-work projects. This contribution can be provided by including affordable housing units within new development (performance option) or paying into a fund that will support the development of affordable housing (payment option)” (SDCI, n.d.-a).*

MHA helps maintain income diversity within neighborhoods and encourages regular maintenance, however, Seattle developers are allowed to opt out of creating affordable housing units by paying into City funds which places burden and responsibility on constrained City budgets. Additionally, there are constraints on the total number of units included, only between 5-11% of units, and limits to income levels and variety. According to reports, current city policy prioritizes the lowest of income households, <30% AMI.

While several programs are already in effect in the city of Seattle, such as Mandatory Housing Affordability, mentioned above. Additional affordable housing policies include the Seattle Housing Levy, which focuses on new and preserved affordable rental homes; investments in Permanent Supportive Housing (PSH), which seeks to mitigate displacement of low-wage workers, supported first-time homebuyers; and providing emergency support for homes requiring maintenance (Office of Housing, 2023). Other initiatives include public housing or non-profit development by a variety of partners including Plymouth Housing, Bellwether Housing, Community Roots Housing (Cohen, 2022) and Habitat for Humanity. City of Seattle also provides permanently affordable housing, also known as resale-restricted. There are also tax incentives for developers, the Multifamily Property Tax Exemption (MPTE) program, as well as subsidies for residents through Tax Vouchers. There are also several bills and policies promoted to address access to affordable housing in the long-term, such as the Affordable Homes Act, House our Neighbors, a social housing initiative, Rent Stabilization, Real-Estate Transfer Tax, “Housing Abundance Map” for the City’s Comprehensive Plan, along with others. However, according to social housing proponents, while public and non-profit agencies have vast experience in managing federally financed models, there is concern that federal financing will never be able to meet the scale of need.

# CHAPTER 1: Housing and Economic Development

## Assessment- Housing

“Right now, the vast majority of subsidized affordable housing in Seattle and across the U.S. is built by nonprofit developers. Seattle also still has more than 8,000 units of traditional government-run public housing and a small pool of subsidized units built by market-rate developers in exchange for tax breaks” (Cohen, 2022).

| Strategy  | Overview   | Pros & Cons  |
|---|--|--|
| Increased Urban Density*                          | <p>Density Bonus*</p> <p>Urban Containment</p> <p>Manages growth within urban spaces; incentivizes increased urban density</p> <p>Maximizes how many units can be put into one building</p>  | <p>Pros: Increased access to housing; higher density can allow for more diverse incomes to live in the same area; decreased vehicle traffic</p> <p>Cons: Backlash from high-income, North Capitol Hill residents; NIMBY</p>  |
| Integrated Housing with Increasing Density        | <p>Housing developments that allot a certain percentage of accessible units (at least 10%) for people with disabilities and specific needs and accommodations</p>  | <p>Pros: Increased accessibility; housing diversity options for people with disabilities</p> <p>Cons: Can be more expensive to construct</p>   |
| Shared Equity Homeownership (Davis, 2006)         | <p>Ensures that the homes remain affordable on a long-term basis by restricting the appreciation that the owner can retain, preserving affordable housing in areas where rising prices are forcing lower income households out of the market. Returns based on consumer price index or household income.</p> | <p>Pros: Community-based support system; prioritizes low-income households; stable-long-term homeownership; better protected from downturns (as well as extreme appreciation and cost-prohibitive property taxes)</p> <p>Cons: Restricts home value appreciation; quid pro quo for shelter</p> |
| *Currently implemented in the State of Washington |  |  |

**Table 6.** Affordable Housing Strategies (UW HIA Team, 2024).

# CHAPTER 1: Housing and Economic Development

## Assessment- Housing

| Strategy   | Overview   | Pros & Cons   |
|--|--|---|
| Permanently Affordable Homes/ Resale-Restricted* (Deed-Restricted Housing) | Buyers sign a legally enforceable agreement which requires them to occupy their home as a primary residence and if they choose to sell their home, they are restricted in their sale and must sell to another income-eligible buyer based on an affordability formula. Sales are better managed through public agencies or stewards and developed legal mechanisms to ensure the homes remain affordable during successive resales (Seattle Office of Housing, n.d.) | Pros: Seattle housing cost is restricted to no more than roughly 33-38% of a buyer's monthly income.<br><br>Cons: Restrictions on equity; constraints in monitoring subsequent sales. May face constraints based on the duration of the covenant. |
| Community Land Trusts*   | Secure land for community; provide access to secure and affordable homeownership (NYAM, 2016)  | Pros: Builds a strong sense of community.<br>Cons: Difficulties in management and financing; inability to meet low-income families' needs (NYAM, 2016)  |
| Limited Equity Cooperatives  | Multiple residents purchase shares in a development instead of an individual unit  | Pros: Initial affordability; construction subsidies; low-interest financing; owners can gain money when selling their investment shares which can lead to individual wealth growth<br><br>Cons: Reduced ability for residents to build equity     |

\*Currently implemented in the State of Washington

**Table 6.** Affordable Housing Strategies (UW HIA Team, 2024)

# CHAPTER 1: Housing and Economic Development

## Assessment- Housing

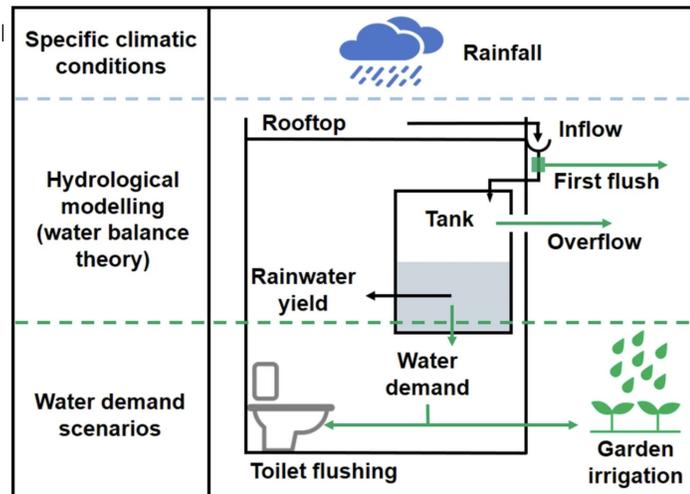
### *New Construction and Continued Growth*

According to the One Seattle Comprehensive Plan, nearly half of survey respondents (47%) indicated that they want to see housing and business growth in less populated areas, moving away from keeping the development contained within the neighborhoods that are already densely populated. As noted, this could mean seeing an increase in multi-family units in Northern parts of Capitol Hill, evening out the development between the North and South of the neighborhood. The draft plan states that Capitol Hill will see the second largest addition of new housing at about 9,000 housing units. The burden of the Mandatory Housing Affordability program may make development less equitable, favoring large, luxury apartment producing developers over community members.

### *Environmental Concerns with New Buildings*

Green building initiatives are gaining popularity as concerns over emissions and their impact on the climate crisis is growing. The Bullitt center acts as a benchmark building for the city of Seattle, boasting net-zero emissions through photovoltaic solar panels, taking advantage of natural light, and efficient insulation Technology (Chen et al., 2024). There are also new technologies that improve water usage and take advantage of rainwater for use in irrigation and plumbing, such as the system shown in Figure 10 below.

Advanced technology in insulation is also a key component of green building, particularly in cities such as Seattle due to the low use of air conditioning that may need to change because of increased heat risk.



**Figure 10:** Rainwater collection system (Chen et al, 2024).

# CHAPTER 1: Housing and Economic Development

## Assessment- Housing

The City of Seattle acknowledges that buildings are one of the largest sources of pollution contributing to climate change, emitting over one third of total emissions for the whole city (City of Seattle Office of Sustainability and Environment, n.d.). An ordinance, Building Emissions Performance Standard, was recently passed to reduce greenhouse gas emissions from existing buildings including non-residential, hotel, school, campus, and multi-family buildings that are more than 20,000 square feet. This ordinance requires these buildings, starting in 2027, to document their emissions and create plans to move on reducing emissions, aiming to achieve net-zero emissions by 2050 (City of Seattle Office of Sustainability and Environment, n.d.).

While this ordinance is applied to existing buildings, there are a number of incentives that the city of Seattle has for new buildings to utilize. These Green Building Permit Incentives encourage people involved in projects to take part in these initiatives to incentivize sustainable practices in exchange for quicker permits, higher buildings, larger building size within parameters in order to have greener standards in building structures. Construction timelines that can be truncated through this process is a major incentive to shift funding in a project from labor for days that might need to stop early or be missed altogether due to permitting timelines, to fund engaging with environmentally focused materials and practices.

# CHAPTER 1: Housing and Economic Development

## Assessment- Housing

### Equity Assessment

Equity in housing and economic development on First Hill / Capitol Hill necessitates a multimodal strategy that puts affordability, diversity, and accessibility first. Housing initiatives need to actively seek to maintain the availability of inexpensive housing options in addition to their goal of creating new residential spaces. The social fabric of the neighborhood is at risk due to gentrification and rising property values, which frequently result in the relocation of communities of color and low-income inhabitants. Therefore, in order to guarantee that present residents may continue to call First Hill / Capitol Hill home despite economic expansion, policies and strategies should place a high priority on the development of affordable housing units and the retention of current residents.

Initiatives for economic growth should also prioritize building an inclusive and diverse business environment. Local businesses owned by minorities and marginalized groups should be encouraged and supported. Resilience and economic empowerment in these areas can be enhanced by offering resources and incentives for entrepreneurship. Furthermore, improving accessibility is essential to guaranteeing fair development. An inclusive community where everyone can access opportunities, services, and amenities without facing barriers requires investments in public transportation infrastructure, pedestrian-friendly initiatives, and accommodations for the elderly and people with disabilities. Prioritizing accessibility, affordability, and diversity will help First Hill / Capitol Hill achieve sustainable economic growth while advancing social justice and equity in the neighborhood.

# CHAPTER 1: Housing and Economic Development

## Recommendations- Housing

### Recommendations

- Upzone Northern Capitol Hill Area to Multi-Family/Residential-Commercial Space

As discussed in the Capitol Hill EcoDistrict report, highlighted in demographics presented, and noted in Figures 2-1 and 2-6, the North Capitol Hill area has less dense neighborhoods and seems zoned as strictly residential areas. North Capitol Hill boasts the lowest number of people per acre and housing per acre, in comparison to the rest of Capitol Hill and First Hill. This presents an opportunity to adjust zoning in this area, in order to meet housing priorities and create cohesive integration with the rest of Capitol Hill.

Adapting zoning in the North Capitol Hill area to Multi-Family and Residential-Commercial zoning could create additional housing units, increase density, as well as create more business and commercial opportunities for a better integrated, walkable, and multi-functional area. Increasing commercialization could be coupled with support for small and local business owners to build and maintain a local character and preserve economic benefits within the neighborhood. Health benefits might include social integration as well as improved access, particularly for individuals and families who benefit from living in higher income neighborhoods, such as access to city services, regular maintenance, and green space.

*“In 2023, Washington State took a major step towards ending the housing crisis by passing legislation — House Bill 1110 — to legalize the creation of cottage homes, townhomes, duplexes, triplexes, and other midrise multifamily housing types in single-family zones...To build new “family-sized” 3- to 4-bedroom homes, we need to make projects financially feasible...” (Donohue 2024).*

In order to maintain neighborhood characteristics of primarily family-oriented residential area, housing could be increased in graduated and tiered ways, both with regards to time scales and height of development. “Upzonings, which increase allowable densities often by relaxing the zoning code’s height and bulk requirements or increasing floor area ratios, aim to encourage denser development, increase housing supplies, and thus improve housing affordability.” Exclusionary zoning practices prevent housing growth and have historically served to create racially segregated communities and while there are concerns with gentrification, these concerns typically focus on lower-income, minority-majority neighborhoods being overtaken by wealthier and Whiter residents (Davis, 2021). There is less research on the long-term impacts of integrating wealthier neighborhoods, but historically, urban integration has resulted in White-Flight, dynamics of which are already seen in public schooling and privileged families’ preferences for private schooling.

# CHAPTER 1: Housing and Economic Development

## Recommendations- Housing

- New Development should prioritize Affordable Housing
  - Retract MHA payment options for new housing development in the area
  - Support housing for local and lower-wage workers in the Capitol/First Hill area.

Upzoning efforts in the North Capitol Hill area could be enhanced through the employment of mandatory inclusionary housing. While the current policy allows developers to “opt-out” of building affordable housing by paying into a City Affordable Housing Budget, this could reduce the total number of possible affordable units given financial and technical barriers the City faces in developing and managing public housing and residences. Mandatory inclusionary housing could ensure mixed-income rentals, similar to the social housing framework, but would be managed by the private sector and be mandatory, in comparison to the 12 year limits of the Multi-Family Extension Tax Credit.

Greater affordable housing units in the North Capitol Hill area could provide housing for workers of newly commercialized areas, ensuring a sustainable neighborhood that caters to different jobs and income levels. Affordable housing would also benefit small business owners and their ability to maintain employees.

- Increase Multi-Sized Units to foster neighborhood diversity and create more opportunities for larger families.
  - Prioritize low-income families
  - Promote long-term and equitable homeownership

North Capitol Hill boasts a larger percentage of children as well as a greater number of smaller developments, likely single-family residences, with a greater number of bedrooms. In agreement with maintaining the neighborhood’s ability to provide housing for family-sized households, North Capitol Hill might be seen as particularly well suited for larger families with children. In addition, multi-family units have the capacity to impact density in a given area and can also provide an opportunity for more equitable home-ownership and structured social integration. This can be done by encouraging new development that caters to low-income families and first-time homebuyers and there are already several strategies that the City of Seattle implements in order to encourage lower-income buyers, including permanently-affordable housing and down-payment assistance.

Home ownership can foster generational wealth and stability for individuals, families, and neighborhoods. It is recommended that in order to ensure long-term affordability, preference be given to shared equity homeownership practices and permanently-affordable contracts.

# CHAPTER 1: Housing and Economic Development

## Recommendations- Housing

- Pursue long-term housing stability strategies by piloting Community Land Trusts

City Planners might take advantage of the Community Preference policy in Seattle along with growing support for long-term sustainable affordability efforts to pilot a larger-scale Community Land Trust project in the Capitol/First Hill area. There are about 16 existing Community Land Trust organizations operating in the state of Washington and in 2022 the Home Futures Institute, which distributed public funding to develop a training program for further CLT development. As mentioned above, CLT's provide permanently affordable housing, but do require oversight and regulation (Davis, 2006). Vacancies in the areas as well as existing public land might be repurposed towards this effort. Differently from public housing efforts, CLT's prioritize home-ownership, long-term sustainability, support family autonomy, and circumvent market-rate pricing. Current City of Seattle market-based approaches to affordable housing struggle against perpetual economic growth and rent increases due to inflation and speculation. CLT's provide a community-based approach to protecting and regulating market speculation to ensure long-term affordability and access to housing for families. While CLTs reduce the extent of wealth and equity generation, they do so to the benefit of families who achieve secured housing.

### Barriers and Constraints

In 2019, Seattle upzoned 27 neighborhood hubs, which did not include North Capitol Hill. This upzoning received pushback and faced much criticism (Beekman, 2019). While most certainly some of that pushback was due in part to NIMBYism (Not In My Backyard), some of the criticism does seem founded in efforts to improve and increase accessible housing, such as criticism of the MHA and developers' ability to pay-out from developing affordable housing

# CHAPTER 1: Housing and Economic Development

## Literature Review - Economic Development

### *Economic Stability*

A thriving local economy is essential for fostering the overall well-being of a community. It serves as the foundation for economic growth, job creation, and the preservation of local character (Mitchell, 2012). Moreover, a healthy population is closely intertwined with a prosperous local economy, as they mutually support each other's growth and development.

Negative health effects of poverty are beginning to be more widely studied. Having a lower income in New York City was associated with physical inactivity, poor nutrition, obesity, smoking, depression, and reduced health access. Researchers have found that an increase in minimum wage can result in positive health benefits and a reduction in premature death rates (NYAM, 2016). Additionally, wealth is associated with children's educational attainment and future wealth. Wealth also provides financial and psychological security for families and confers status and subsequent social and economic positioning, all of which ultimately impacts children's opportunities and wellbeing. Homeownership, a major wealth-builder, is still systematically out of reach for many marginalized communities; many Black and Hispanic families are disproportionately lower-wealth households, with little to no wealth (Gibson-Davis; Hill, 2021).

Research has shown that areas with vibrant small-business sectors are associated with lower rates of mortality, obesity, and diabetes (Blanchard et al., 2011). Although small businesses usually have lower-paying jobs with fewer benefits to the employees, they generate a greater level of social interaction and trust among community members which brings positive noneconomic effects on community health. Often ignored by public and private stakeholders driven by modernization and development frameworks, social connection has a latent effect on fostering population health physically and mentally by mitigating social isolation and loneliness (Holt-Lunstad et al., 2017).

# CHAPTER 1: Housing and Economic Development

## Literature Review - Economic Development

### *Employment*

Employment-related stressors such as a fear of job loss and lay-offs are some of the most stressful life incidents and could lead to significant and prolonged mental stressors (McKee-Ryan et al., 2005). The epidemic of loneliness and isolation reported by the US Surgeon General in 2023 has taken over America, chronic loneliness and increased social isolation can increase the risk of cognitive malfunctioning and the risk of developing depression and anxiety. Stable employment has been proven to be helpful through several factors to promote mental health such as 1) protection from harm, 2) connection and community, 3) work-life harmony, and 4) opportunities and growth (The U.S. Surgeon General, 2022). By increasing a person's access to income, employment may also protect against cardiovascular disease and mental health-related conditions. Regarding physical health, unemployment is associated with higher rates of stroke, hypertension, and heart attack (Dupre et al., 2012).

Occupations can have a profound impact on one's health. Those that have a high amount of social interaction through customer/client-facing jobs, such as food and retail services, often present high turnover rates as well (Gerencher, 2005). Mental stress, undervalued emotional labor and unstable job retention can lead to negative health consequences. Individuals with shift work, which is prevalent in the healthcare sector, are proven to be at higher risk of behavioral and health-related morbidity associated with their sleep disturbance (Drake et al., 2004). Both short-term and long-term health effects from shift work are also associated with negative consequences to the cardiovascular system, metabolism, digestion, immune system, and hormonal balance (Griffin, 2010).

Employment status and stable income are significant determinants of health. It not only provides individuals with a sense of dignity but also assures financial access to various resources that keep one healthy. On average, American adults spend nearly half their waking hours at work and stable employment is essential to mental health and obtaining income, housing, healthy food access, and medical services which all contribute to the stability necessary for a healthy life (Kataoka et al., 2009).

# CHAPTER 1: Housing and Economic Development

## Literature Review - Economic Development

### *Commercial and Small Businesses*

Another study found that communities with greater rates of small businesses were found to be physically healthier, with lower rates of mortality, obesity, and diabetes. There is also research that shows that locally-owned small businesses create greater returns for the local economy in comparison to national chains. Immigrants specifically benefit from small business ownership and can make up a significant portion of entrepreneurs. However, there are some negative health impacts associated with commercial development in residential areas, including loud noise and air quality concerns. Small businesses also struggle to provide strong benefits for their employees, such as health insurance or paid time off. Industrial zoning in urban areas also pose health issues for residents. Although industry may create accessible job opportunities, it may come at a health trade-off due to pollution (NYAM, 2016).

### *Economic Development in EcoDistrict Report*

Rising income inequality along with commercial rent creates additional barriers to entry as well as displacement for existing businesses. Small businesses have operated with fewer employees, because many cannot afford to live in the area. The income disparity has caused tensions regarding the purpose of shared spaces between businesses and residents. Digital Survey respondents ranked “Living wage jobs” (54%) as the most critical strategy for anti-displacement efforts related to business and employment. “...residential and commercial anti-displacement strategies must both consider the constraints that small businesses face in shouldering policy initiatives without adequate support” (Capitol Hill Ecodistrict, 2023).

# CHAPTER 1: Housing and Economic Development

## Baseline Conditions - Economic Development

As one of Seattle's most vibrant urban centers, Capitol Hill has the highest number of small businesses in Washington State (Capitol Hill Business Alliance, n.d.). It serves as a retail hub and cultural center for locals and visitors. A plethora of restaurants, retail stores, and recreational services are found here. Capitol Hill's local businesses provide economic stability through employment opportunities, environmental sustainability, and a high level of social interaction within the neighborhood.

Recent concerns about corporate offices and chain stores established in and near the neighborhood include increased commercial rent costs and displacement of locally-owned businesses, which could further gentrify the area, pushing away residents and result in the loss of community character (Johnson, 2016; Regan, 2022).

Being the historic cultural and residential center for the LGBTQIA+ community in Seattle, the number of residents and culturally specific queer spaces have also decreased in the past few years due to rising commercial costs and changing cultural landscape due to gentrification (Ishisaka, 2023).

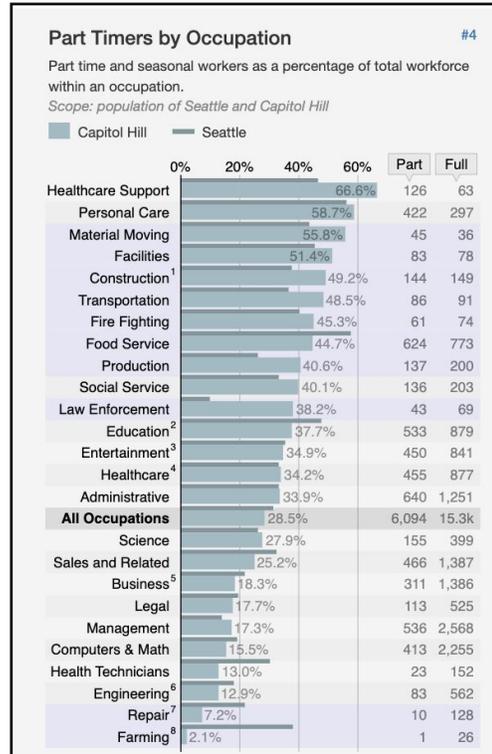
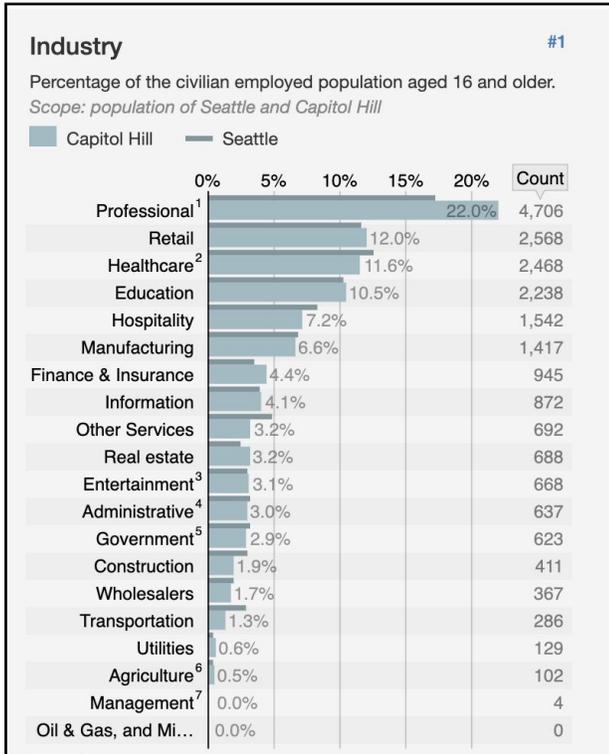
### *Employment*

The 2020 American Community Survey (5-year) shows that 22% of Capitol Hill residents have an income below the 200% poverty rate, higher than the Seattle average of 19%. The percentage of workers in poverty is 6%, among which 7.5% are employed full-time and 44.4% work part-time. The leading occupation for part-time workers in Capitol Hill is "healthcare support and personal care."

More than 40% of the area population doesn't own a vehicle, higher than the Seattle average of 18%. Therefore, most people choose to either use public transportation or walk to work which suggests a closer work site proximity. The greatest amount of employment in the area is in the professional, healthcare, and retail sectors. Figures 11 and 12 provide employment statistics for Capitol Hill compared to the city of Seattle as a whole (City of Seattle, n.d.-c). In addition, Table 7 provides information from the 2020 American Community Survey Neighborhood Profile on the mode of travel for work, for residents in different areas of the Urban Center (City of Seattle, n.d.-c).

# CHAPTER 1: Housing and Economic Development

## Baseline Conditions - Economic Development



Figures 11 & 12: Employment Statistics (City of Seattle, n.d.-c).

| Travel & Work                   |            |              |                    |         |
|---------------------------------|------------|--------------|--------------------|---------|
| ACS Neighborhood Profile (2020) | First Hill | Capitol Hill | North Capitol Hill | Seattle |
| Worked from home                | 10%        | 11%          | 23%                | 14%     |
| HH w/o vehicles                 | 43%        | 49%          | 21%                | 18%     |
| Walk to work                    | 45.4%      | 33.3%        | 22.5%              | 12.5%   |
| Public Transportation to work   | 23.4%      | 30.8%        | 23.6%              | 23.9%   |

Table 7. Travel to Work (City of Seattle, n.d.-c).

# CHAPTER 1: Housing and Economic Development

## Assessment- Economic Development

### Economic Stability

To ensure thriving mixed-use residential and retail corridors as suggested in CA-G22 of the 2015 Subarea Plan, policies need to work to preserve the diversity of retail offerings in the Capitol Hill area alongside reasonable chain store expansion. This could include offering small business incubator spaces, mentorship programs, financial resources such as tenant improvement funds, and other commercial rental assistance to address the rising cost barrier for new businesses in the area. More employment opportunities will be available as a consequence of new small businesses. Despite a decline in the LGBTQ residential population, Capitol Hill remains a cultural center for this population. To make sure that Capitol Hill still holds this role, making more spaces for queer owned and/or operated businesses could restore their community presence.

In response to CH-97 of the Subarea Plan, the area should emphasize and utilize the multiple principal pedestrian streets' existing intimate retail character and the variety of pedestrian-scaled storefronts. Using forms of tactical urbanism can temporarily transform the area into a more pedestrian-prioritized center. Although there are ongoing healthy streets and two new installations within the next two years, these streets remain mostly residential and of limited block range (City of Seattle Department of Transportation, n.d.-a). There have been other successful examples such as Open Newbury Street in Boston. The mile-long, eight-block stretch of shops, salons, galleries, and restaurants which serve as an urban main street in downtown Boston becomes pedestrian-only on selected Sundays during the summer since 2016 (City of Boston, 2021).

Local businesses have also raised concerns regarding public safety concerns including rampant vandalism and public drug use in the area. The costs of private security prohibit many small business owners from taking action. However, as the subarea strives to enhance its residential walkability, pedestrians and business owners ought to feel safe and protected. There is also a lack of public restroom access which could be discouraging for local pedestrians and tourists visiting the businesses. The lack of restroom availability also deprives individuals experiencing homelessness of a basic human right. Currently, there are only two open public restrooms in Volunteer Park and Seattle Public Library Capitol Hill Branch (Seattle Parks and Recreation, n.d.).

# CHAPTER 1: Housing and Economic Development

## Assessment- Economic Development

### *Employment*

A high demand for living wage jobs was found through the digital survey via Capitol Hill EcoDistrict. Survey respondents reported a 54% for living wage jobs compared to other anti-displacement strategies, such as equitable support for arts and culture organizations (43%), equitable support for small businesses (39%), and more job training (25%). Although small businesses vitalize the area as a collective, they usually generate lower-paying jobs with fewer benefits to the employees. Along with the high density of shift-based work in the area, this suggests the imminent need for living wage employment in the area. More opportunities that pay a wage that matches the area's affordability need to be created and sustained.

Continuing efforts of workforce development can grant individuals access to meaningful employment opportunities and enhance their sense of self-efficacy. By equipping the workforce with training and continuing education, the community can gain a more resilient, skilled, and well-rounded workforce. There is a decent number of training sites in the area including two public schools and fifteen job training facilities. The initiatives should also focus on marginalized and underserved populations in the area to reduce health and employment disparities within the community.

# CHAPTER 1: Housing and Economic Development

## Recommendations- Economic Development

### *Economic Stability*

- Create partnerships between the city and local organizations such as Capitol Hill Business Alliances and Greater Seattle Business Alliance and provide material and financial resources such as tax incentives, and training programs for small businesses to establish and thrive in Capitol Hill. This could especially focus on incentivizing and promoting queer-owned/operated businesses.
- Implement or expand on summer healthy/open main streets to foster pedestrian activity on the mixed-use main streets.
- Collaborate with the Seattle Public Utility and/or relevant stakeholders to implement portable restrooms and staffed public restrooms in the heart of Capitol Hill.
- Coordinate neighborhood clean-up day with community organizations and members to build a cleaner and more self-reliant community space for businesses.
- Promote green business standards for new and existing local businesses.

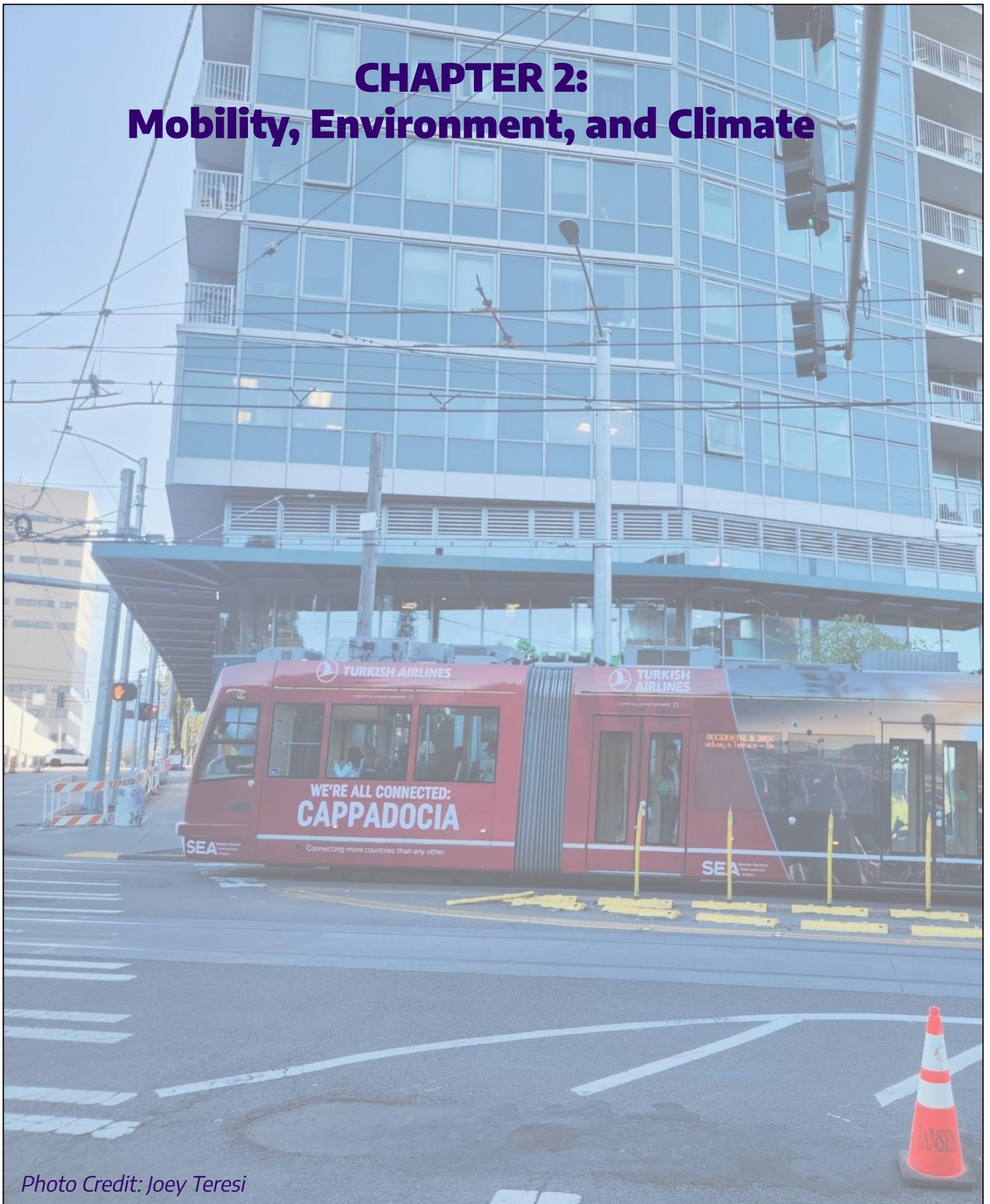
### *Employment*

- Integrate and advocate policies for livable wages that match the area's affordability along with health insurance and other benefits.
- Emphasize workforce development, job training, and continuing education for a sustainable and healthy local workforce. Consider restoring financial resources to institutions such as Seattle Central College which has had a funding cut during the pandemic.

### *Development*

- Strengthening the impact of Green Building Permit Incentives: Make some elements of the green building permit incentives, such as not installing fossil fuel equipment and installing technology such as rainwater collection systems and heat pumps, mandatory. Mitigating contributions to climate change is going to create better health outcomes in the long run by reducing incidences of air, land, and water pollution.
- 
- Introduce incentives: For both new and existing buildings, create sustainable and desirable environments for people to live in with the inclusion of green roofs and spaces and improve insulation.

## CHAPTER 2: Mobility, Environment, and Climate



*Photo Credit: Joey Teresi*

# CHAPTER 2: Mobility, Environment, and Climate

## Introduction - Mobility

Mobility, the ability to move freely and easily through a space, is closely linked to transportation and infrastructure but is impacted by many other aspects as well. Increased mobility, paired with walkability and other non-motorized transportation options, has consistently shown positive impacts on community and individual health outcomes. Likewise, mobility options contribute to the overall economic health of an area, which has also shown to have an impact on health outcomes, according to the Centers for Disease Control and Prevention (CDC) (CDC, 2023). Within a neighborhood, such as Capitol Hill and First Hill, issues of mobility are complicated by the numerous services and spaces within the area. While the neighborhood does have control over certain aspects of mobility, there are also larger structural problems which contribute to overall mobility. This being said, the First Hill / Capitol Hill Subarea Plan can recommend and advocate for changes that affect not only the neighborhood, but the mobility and connectivity of the greater Seattle region.

### Connection between Mobility and Health

#### *Physical Activity*

The national increase in obesity rates over the last several decades prompted research to clarify how the built environment impacts obesity. One study found that those who spend less time doing physical activity often spend more time sitting in cars, which contributes to difficulties in maintaining a healthy weight. Active forms of transportation such as walking and biking, are convenient methods for increasing levels of physical activity, and attenuate the health risks associated with sedentary lifestyles. Not only has regular physical activity been shown to reduce the risks of many adverse physical health outcomes (CDC, 2008), it is simultaneously associated with reducing many concurrent mental health issues (Sallis et al., 2011).

# CHAPTER 2: Mobility, Environment, and Climate

## Introduction - Mobility

Federal guidelines in the United States suggest that adults should spend either 30 minutes per day, five or more days per week doing moderate-intensity activity, or three or more days per week doing vigorous-intensity activity such as brisk walking or biking (CDC, 2008; Greenberg, 2005). Adherence to moderate or vigorous physical activity regimens may elicit short-term benefits for weight loss and cardiovascular health. However, these regimens are often unsustainable for many Americans in the long term (Stokes, 2008). Less intense forms of physical activity, on the other hand, encourage greater permanence in individuals' daily routines, and if the built environment supports it, walking and biking for transportation can easily become a part of a person's routine and contribute to improved health (MacDonald, 2010). Walking to and from public transit is another way to increase physical activity. In a study of New Jersey train commuters, 78% met the federal guidelines for physical activity by spending an additional 20 to 40 minutes roundtrip walking between train stations and their destinations (Greenberg, 2005). Another study found that commuters who took light rail transit walked 30% more pedometer-measured steps per day than car commuters (Brown, 2009). Overall, light rail transit users experience an annual BMI decrease of 1.18 and are 81% less likely to become obese in the long-term when compared to non light rail transit users (MacDonald, 2010). Thus, promoting public transit is an essential element in reducing obesity rates.

Increasing the number of bus routes and frequency of service, as well as ensuring affordable transit fares, are essential in these decisions (Greenberg, 2005). Shifting communities' transportation systems away from personal automobiles to public transit offers a variety of indirect social and health benefits. For example, an increase of walking by 8.3 minutes a day—the average time it takes to walk to/from public transit—can save up to \$6,600 in health care costs, 80% of which are public savings (Edwards, 2008). Furthermore, when transportation increases access to preventative health care, the frequency of acute health problems and costly emergency room visits decrease (Weinick et al., 2010; Andrulis, 1998). High quality public transportation can positively impact community livability and can help to support social networks.

# CHAPTER 2: Mobility, Environment, and Climate

## Introduction - Mobility

### *Safety*

Responsible active transportation requires that safety issues related to walking and bicycling be addressed. The extent to which the built environment addresses safety concerns of pedestrians and cyclists, affects willingness to engage in these physical activities. In the United States, many students do not walk to school due to perceptions that the environment is unsafe for pedestrians (Staunton et al., 2003; CDC, 2005). A safe, walkable environment tends to increase the number of pedestrians in an area. Sidewalks, traffic-calming measures, and well-marked street crossings have all been associated with increases in physical activity (Boarnet et al., 2011). Studies have also found that an increased number of pedestrians is associated with a reduced number of auto-pedestrian collisions, suggesting that drivers become more alert to pedestrians in or near the roadway when there are more of them in the area (Jacobsen, 2003). Bicycle-specific infrastructure has been shown to reduce the risk of injuries requiring hospitalization for cyclists. One study compared the risk of serious injuries while riding a bicycle on major streets with parked cars, to various types of cyclist routes. Major streets with a bike lane showed a 31% reduction in the risk of serious injury, local streets designated as bike routes with traffic calming measures showed a 34% reduction in risk, a separated bike path showed a 46% reduction in risk, and cycle tracks show an 89% reduction in risk (Teschke et al., 2012).

Economic Implications of Walkability and Bikeability Cyclist- and walker-friendly infrastructure enhances opportunities for accessing employment, education, health care, and shopping. Relative to car ownership, bicycling and walking are inexpensive means of transportation with no need for fuel, no parking fees, and a low cost to purchase equipment. One study found that automobile dependent households spend 50% more time commuting and \$8,500 more annually on transport (Litman, 2008). When consumers save on vehicle and fuel expenditures, they are able to invest in other aspects of the economy. Individuals can then put money toward food and other critical household costs, all while getting needed exercise. Reduced travel expenses benefit both individuals and society as a whole. Walkable environments have been linked to business success due to enhanced consumer accessibility (Litman, 2011). Furthermore, as investments in pedestrian and cyclist infrastructure are less expensive than those for car infrastructure (Van Hout Kurt, 2008), the monetary return on the investment can be quite large.

# CHAPTER 2: Mobility, Environment, and Climate

## Introduction - Mobility

### *Air Quality*

Increases in traffic related air pollution stem from a reliance on single-occupancy vehicles. These increases can be mitigated through the promotion of active travel modes and public transit. Active transportation and public transit help reduce traffic congestion by removing vehicles from the roadways. This reduction in traffic allows for more efficient fuel usage by the vehicles still on the road, and decreases individual vehicle pollutant emissions (Meyers, 1999).

### *Focus Areas*

Through a review of the 2015 Subarea Plan, there are specific transportation and mobility related Goals. Within these Goals, there are numerous categorized Policies which are intended to support the Goals. Since not every policy stated in the CH Subarea Plan is directly related to mobility and health, the Goals and Policies were evaluated and selected for inclusion in this section based on overall potential impact on public health outcomes. The specific Focus Areas are outlined below.

### *Non-Motorized Transportation -*

Non-Motorized Transportation, or NMT, is a shorthand which refers to the various modes of travel not utilizing motorized engines. While some modes of travel included in NMT do use a small motor, such as electric bicycles, they are typically bound in the following categories: Pedestrian infrastructure, Walkability, Biking, and Micromobility. This area of focus is supported by numerous Subarea Plan goals and policies, specifically, the main Transportation Goal CH-G6, "A pedestrian-oriented neighborhood with a balanced transportation environment that emphasizes public transit, yet also facilitates vehicular mobility and addresses the parking needs of businesses, residents, and students" and the Transportation Policy CH-P26, "Support a variety of transportation modes that provide alternatives to using a car."

# CHAPTER 2: Mobility, Environment, and Climate

## Introduction - Mobility

### *Safety-traffic -*

High traffic, particularly automotive traffic, poses significant risks to community health outcomes (Clark et al., 2009). Risks are often elevated in residential and mixed use areas where people, especially children, are more often walking and playing. This area of focus is also directly addressed by CH-P27, “Encourage traffic-calming measures in residential neighborhoods.”

### *Discourage Unnecessary Commuting by Motorized Travel-*

As Capitol Hill and First Hill contain many city resources and amenities which serve the broader Seattle community, there will always be some level of commuting and motorized travel in the area. However, through thoughtful design and the support of non-motorized transportation options, there is opportunity to lower the overall need for commuting to and from the neighborhood, specifically via automobile. This is supported by CH-P28, “Discourage commuter and employee parking in the neighborhood.”

### *Hospital Access -*

Located in the First Hill area is a major medical complex, consisting of large networks like Swedish, Virginia Mason, and Kindred Health medical centers. There are also numerous smaller private practices within these complexes. The hospital area can be defined as an “island” which is isolated from many other areas of the city, but encourages travel to it. However, the hospital complexes are also near residential and neighborhood resources which residents who are not accessing the hospital must contend with. This area of focus is supported by FH-P20, “Seek to resolve transportation and parking problems associated with being both a major medical employment center and a residential urban center village, and improve the environment for pedestrians.”

# CHAPTER 2: Mobility, Environment, and Climate

## Introduction - Mobility

### *Transit/Transportation -*

The Capitol Hill Link Light Rail Station opened in March 2016. This has increased the overall mobility and connectivity of the subarea, as well as the city at large. Further construction of transit services are still underway. However, there are certainly many sections of the neighborhoods which have limited transit access. This is also a complementary area of focus to many other elements, such as supporting non-motorized transportation options and encouraging traffic calming activities. This area of focus is supported by CH-P25, “Support construction of light rail transit services through Capitol Hill with transit stations.”

### *Parking/EV Car Charging -*

As described above, the area serves not just the residents in the neighborhoods, but many others in the broader city. While the overall transportation goals are to limit the unnecessary use of automobiles and motorized transportation, there is also a need to implement smart and reasonable policies for parking and car charging stations that maximize the businesses, residences, and amenities in the area. This is supported by CH-P29, “Strive to improve parking management to better serve the needs of businesses and residents.”

# CHAPTER 2: Mobility, Environment, and Climate

## Literature Review - Mobility

The link between public health and mobility is well-researched. General research into public health outcomes and increased mobility is not limited to the academic sphere, as literature is found everywhere from the US Centers for Disease Control to local transportation departments. The principles learned from this wealth of research, of course, applies to the First Hill / Capitol Hill study area. For a brief overview of the basic connection between mobility and public health, the CDC's *Public Health Action Guide* series highlights the main health impacts of increased mobility options. Increased options for mobility, specifically non-single occupancy vehicle trips, can result in better health outcomes for individuals, such as:

- Increased physical activity, lowering risk of numerous diseases, like heart disease
- Reduction of respiratory symptoms, such as asthma
- Increased access to jobs, schools, groceries and food, and medical care
- Better mental health through personal freedom of movement
- Higher mobility for older populations and people with disabilities

Likewise, there are numerous links between increased mobility options and broader community health. Some of these aspects, from the same CDC paper, include:

- Improved air quality from reduction in emissions
- Reduced injuries and deaths from traffic accidents
- Increased quality of life and reduction in noise pollution
- Stimulation of local economies, leading to less stress and increased health

To increase mobility in the Capitol Hill and First Hill subarea, the UW team reviewed the health impacts of various built environment and policy interventions. A few of these interventions are included as recommendations in below sections. Before any recommendations were researched or made available, the team reviewed available data regarding the associated public health impacts of their implementation. Some of this literature is included here.

# CHAPTER 2: Mobility, Environment, and Climate

## Literature Review - Mobility

### *Health Impacts of Vehicle Parking*

Automobile parking, particularly on-street parking, can have a significant impact on land use, city tax revenue, traffic congestion, public safety, transit ridership rates, and air pollution. A report from the Chicago Metropolitan Agency for Planning, released in 2019, touches on these aspects in a call for variable pricing for on-street parking areas. The report notes that all parking is a major use of land. This affects tax revenue, as the land could be otherwise used for development which would provide revenue for the city. Too much parking can also lower transit ridership, as many would-be transit users opt to drive instead of paying for public transportation. Likewise, on-street parking promotes traffic congestion as vehicles often stop and start or “circle the block” looking for parking spaces. This not only impacts traffic congestion, but also causes more air pollution from emissions. Finally, on-street parking often has views which are partially or fully blocked for both drivers and pedestrians. This is a public safety concern for both parties. The report highlights that increasing the total trip cost for vehicle drivers is proven to promote further use of transit and decrease commuter traffic overall. Less on-street parking is not the only solution, as increased pricing during “surge” times can promote wanted behaviors without limiting parking for residents.

### *Health impacts of Roundabouts*

Roundabouts, a replacement for traditional four-way intersections, are becoming increasingly common in urban development. A study from the US Dept of Transportation - Federal Highway Administration, released in 2020, broke down specific environmental effects, namely emissions, between the implementation of roundabouts and traditional four-way stops. The report notes that emissions are generally expected to be lower when roundabouts are used. Interestingly, the type of pollutants emitted into the air differs, as well. This is due to less pressure on tires and brakes, leading to less particulate matter released into the air. Likewise, a study from the Washington Department of Transportation highlighted that roundabouts reduce both vehicular collisions and pedestrian collisions. Generally speaking, roundabouts are safer for motorists, pedestrians, and residents of the area.

### *Health Impacts of Protected Bike Lanes*

In urban planning, protected bike lanes are essential for advancing public health in a number of ways. They promote active transportation by giving cyclists a designated, safe area. This lessens dependency on cars and lowers air pollution, both of which benefit lung health. Protected bike lanes also promote physical exercise among locals, which helps to combat sedentary lifestyles and related health problems like obesity and cardiovascular disease. Furthermore, by separating areas for various forms of transportation, these lanes improve pedestrian safety by lowering the possibility of collisions and injuries. All things considered, incorporating protected bike lanes into urban planning promotes sustainable mobility as well as a safer and healthier urban environment for all citizens. (City of Seattle, n.d.-a).

# CHAPTER 2: Mobility, Environment, and Climate

## Literature Review - Mobility

### *Health Impacts of Micromobility Options*

Increasing the choices for micromobility in an urban community can have a major positive impact on public health. People are encouraged to travel in more active ways and integrate physical activity into their daily routines by expanding their transportation options to include electric scooters, cycles, and e-bikes. This increased physical activity can help to lower the risk of obesity, improve mental health, and improve cardiovascular health. Additionally, the availability of micromobility choices can aid in reducing air pollution and traffic jams, resulting in cleaner air and a healthier atmosphere for locals. Encouraging micromobility has the potential to mitigate social isolation and improve mental health by fostering a sense of community and social contact among people using public areas. (ITDP, 2021)

### *Reducing mobility disability in older populations and people with disabilities*

Much of the current literature on older populations and people with disabilities interactions with the built environment are based on cross-sectional data analysis. While these studies are an effective snapshots of what is happening at moments in time, they require further research that may begin to uncover causation or solutions. *Neighborhood Characteristics and Disability in Older Adults* cross-sectional analysis resulted that, Low neighborhood socioeconomic status, residential instability, living in areas with low proportions of foreign born and high proportions of Black residents, high misdemeanor crime levels, and negative street characteristics were associated with higher prevalence of both “physical” disability and “going outside the home” disability (Beard et al. 2009). This research provides multiple possibilities for leverage points, many of which might be effective for increasing Mobility in our population of interest. Other literature suggests that increasing mixed-land use zoning, increasing walkability features such as benches and curb cutouts, and increasing access to outdoor nature spaces, will improve mobility in older populations and people with disabilities, improve overall health, and reduce the burden of healthcare costs on the whole population(Clark et al. 2009).

# CHAPTER 2: Mobility, Environment, and Climate

## Baseline Conditions - Mobility

### *Non-Motorized Transportation -*

#### *Walking*

The mixed land use neighborhood of Capitol Hill encourages residents and community members to walk. There are multiple shops, bookstores, restaurants, grocery, and other third places close together that encourage people to walk between locations without the use of an automobile or need for a bus route. Cal Anderson Park provides green outdoor space/activity space such as soccer fields, a fountain, and a basketball court that allows for community congregation and /or physical activity between destinations. Nagle Pl, which runs parallel to Cal Anderson Park has almost entirely eliminated vehicle traffic and allows safe space for people to walk. Vision Zero streets and intersections such as E Denny and Broadway have implemented all direction crosswalks that stop all vehicle traffic and do not allow turning on red, creating a safer environment for pedestrians.

Navigating capitol hill on foot can be a pleasant experience while in the main neighborhood hubs. However, accessibility in and out of Capitol Hill can be difficult as the neighborhood (as the name suggests) is located on top of a steep hill. People with mobility difficulties or disabilities may require other modes of transportation when leaving/returning to Capitol Hill or even when accessing upper areas from lower areas.

#### *Biking*

Similar to walking, biking into Capitol Hill can prove difficult as it is a steep climb into the neighborhood from any direction. East Pine St. provides some protection by way of a bike lane from downtown up into Capitol Hill, but the lane can become blocked by load/unload traffic. Conversely, East Pike St. has a designated protected bike lane that cannot be blocked. Vehicle traffic parks on the street side of the barrier protected bike lane. The most congested area of Broadway Avenue has a fully protected two-way bike lane with bicycle protections at the intersection, including “no turn on red” vehicle stop lights.

12th Ave. currently has minimal sections with unprotected bike lanes. E. Olive/John and 15th Ave. currently do not have any protected bike paths through the congested areas of Capitol Hill.

#### *E-scooter and E-bike ride share*

E-Scooters and E-bikes (e.g. Lime and Veo) are commonly found around the First Hill / Capitol Hill Neighborhood. The majority of the neighborhood is accessible by scooters and bikes with the exception of college campuses and larger parks like Cal Anderson and Volunteer Park.

# CHAPTER 2: Mobility, Environment, and Climate

## Baseline Conditions - Mobility

### *Traffic Safety-*

The City of Seattle as a whole sees over 10,000 crashes 28 deaths, and 180 serious injuries per year (a “crash” is defined as a collision while people are traveling, and can include 2 people driving colliding with one another, a person driving hitting a pedestrian, a person driving hitting a person biking or scooting, or a person traveling hitting another object such as a tree, power pole, or parked car), Deaths and serious injury on Seattle streets trended upward between 2020 and 2022 (City of Seattle, 2024), specifically along the Pike-Pine corridor, Broadway, and the Olive-Denny connection.

Seattle Dept. of Transportation’s 2023 Vision Zero Reports the following statistical analysis:

93 percent of all pedestrian deaths occur on arterials (major roads that carry large volumes of traffic), and 80 percent occur on arterials with more than one lane, with traffic in each direction.

- The top contributing factors to pedestrian-involved crashes are high speeds and failure to yield to pedestrians.
- 80 percent of people killed while biking were riding where no bike-safe infrastructure was available.

Last year First Hill / Capitol Hill accounted for roughly 13,600 collisions, or approximately 5% of all Seattle Collisions, including 3300 injuries (5% of Seattle collision injuries), 191 serious injuries (6% of Seattle collision serious injuries), and 9 fatalities (2% Seattle collision deaths).

### *Discourage Commuting and Unnecessary Motorized Travel-*

In regards to Discouraging Motorized Travel, Capitol Hill currently has the latest timeframe for required street parking in Seattle. While the majority of neighborhoods discontinue required street parking fees at 6pm or 8pm. Parked vehicles in Capitol Hill may get ticketed up to 10:00pm for not paying parking fees . Along with expensive minimal private parking lots, this makes Capitol Hill a more frustrating neighborhood for private vehicle commuters. Moreover, the majority of business and recreation space in the neighborhood is accessible by a bus line that comes from out of the neighborhood or connects with the light rail.

# CHAPTER 2: Mobility, Environment, and Climate

## Baseline Conditions - Mobility

### *Hospital Access -*

Access to the First Hill Area (where there is a high density of healthcare services) is still catching up to the Capitol Hill neighborhood to the North. Many people who need to access regular health care services may consist of older populations and people with disabilities. The natural layout of the area (a steep hill) may provide difficulty accessing services on foot, especially for these mentioned demographics. Access to Swedish First Hill is currently assisted by the Broadway Streetcar, and the completion of the G Line this year will assist with access to Harborview, Virginia Mason, and multiple health clinics on or just off of Madison st.

### *Transit/Transportation -*

First Hill / Capitol Hill currently has a variety of public transit options used for maneuvering the area or getting in and out of the neighborhood.

#### *Light Rail*

Capitol Hill is a stop on the 1 line light rail route. The 1 line currently runs north to south connecting multiple neighborhoods between Northgate to SeaTac Airport and Angel Lake. The line is being expanded to Lynnwood this August (2024), and has anticipated connections to East Side King County by 2025. The 1 line route in Capitol Hill can be accessed via three street entrances at John and Broadway, Denny and Broadway, and Denny and Nagle Pl. All three entrances are elevator accessible.

#### *Streetcar and Bus Route 49*

There is a streetcar route that runs Broadway Ave starting at the Denny and Broadway Light Rail station, the streetcar runs south on Broadway into first hill, Yesler Terrace, and down into International District and Pioneer Square. Many of the streetcar stops are on Sidewalk curb platforms that are disconnected from the main sidewalk and require crossing the bike lane to access. These platforms are wheelchair accessible.

To access the light rail station from the north end of Capitol Hill, commuters would use the 49 bus route which connects International District to the University District via Capitol Hill. Connecting to the light rail would make most sense for commuters going respectively south or north of these two neighborhoods. Connecting to the light rail would only add an extra stop if short commutes were the case.

# CHAPTER 2: Mobility, Environment, and Climate

## Baseline Conditions - Mobility

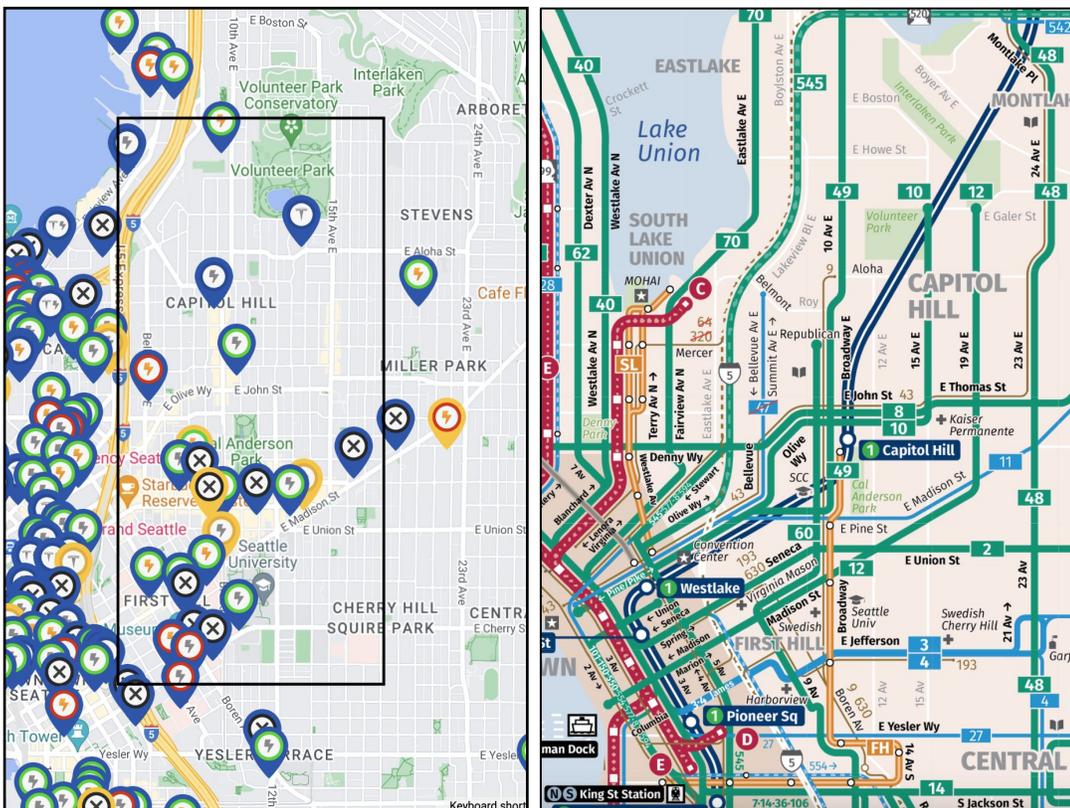
The current Capitol Hill bus routes include:

- 49: Downtown to University District via E Pike and Broadway ave.
- 10: Volunteer park to Westlake via E Pike, E Bellevue, E Olive, and 15th ave.
- 9: North Capitol Hill to Rainier Beach via Broadway ave and Rainier ave.
- 8: Lower Queen Anne to Mount Baker. Cuts through Capitol Hill via E. Olive/John
- 11: Pacific place to Madison park via E Pine and Madison ave
- 60: Capitol Hill to Beacon Hill and Westwood Village. Uses Broadway ave and E Madison while in the Capitol Hill neighborhood.

The G Line Rapid Ride service is currently under construction and is anticipated to begin service this year. It will connect the Coleman ferry terminal with Martin Luther King Jr Way Via Madison Ave.

### Parking/EV Car Charging -

According to the *Chargehub.com* online mapping tool (Figure 13), there are approximately 25 EV charging stations in the First Hill / Capitol Hill area. Stations on average range from two to four spaces, but can have all the way up to nine charging spaces. Some stations are free to use, but may also charge a kilowatt based fee. Figure 13 also provides a comparison map of common transit routes in the subarea.



**Figure 13.** First Hill / Capitol Hill EV charging site locations in the subarea (left) (Chargehub, 2024) and transit routes in the subarea (right) (The Seattle Transit Map, 2023).

# CHAPTER 2: Mobility, Environment, and Climate

## Assessment - Mobility

### *Non-Motorized Transportation -*

While the Capitol Hill and First Hill areas are generally convenient for pedestrians and other forms of mobility, there are significant gaps which can be improved to promote better public health outcomes. As noted above, due to the topography of the area, there is a natural barrier to promoting non-motorized transportation. This is not addressed in the 2015 Subarea Comprehensive plan. However, this primarily affects travel to and from the area. Once on Capitol Hill, for example, there are numerous opportunities to promote pedestrian behaviors. The Comprehensive Plan is also exceedingly vague in its goals and policies. Delineating specific policies can provide realistic targets for increasing NMT behaviors.

### *Safety-traffic -*

The current Capitol Hill plan mentions increasing Transit-Oriented Development, but does not mention traffic safety as a focus outcome. The Transportation goal of First Hill includes mentioning, “(safe and efficient) traffic” (FH-G8). This focus will be especially important as new Transit modes like the G-line are constructed and operated in areas with vulnerable populations.

### *Discourage Commuting and Unnecessary Motorized Travel-*

This comprehensive plan addresses Transit-Oriented-Development (TOD) as a goal. Policy CH-P26 through CH-P29 all address a focus on addressing transportation with a traffic reduction lens. All development and transportation initiatives should oppose promoting personal vehicle use, promote the use of personal vehicle alternatives, while allowing for Business and commercial vehicle use.

### *Hospital Access -*

Section FH-P20 mentions addressing transportation and parking issues for medical staff of First Hill, but does not mention accessibility for people coming to First Hill to access health services.

# CHAPTER 2: Mobility, Environment, and Climate

## Assessment - Mobility

### *Transit/Transportation -*

Increasing transit services in First Hill / Capitol Hill neighborhoods is thoroughly addressed in the comprehensive plan. CH sections include increasing variety of transportation, traffic calming measures, and discouraging parking in the neighborhoods. The overall goal of the plan is to quickly get people where they need to go, without the use of cars, while at the same time, supporting the need for parking for businesses and residents.

### *Parking/EV Car Charging -*

The comprehensive plan does not address promoting electric vehicle charging. There is more of a focus on removing incentives for personal vehicles altogether. While electric vehicles do not contribute to air pollution, they do contribute to overall traffic congestion, therefore they are included in the personal vehicle category and the focus is to disincentivize their use.

### *Equity Assessment*

Addressing neighborhood mobility through an equity lens requires the ability to assess goals and policies by asking if they negatively affect any specific population, or do not address the needs of any specific or multiple populations. The “pedestrian-oriented” goal addresses the vulnerable population in the transportation & mobility equation. It is pedestrians that are at higher risk of injury and death in collision incidence. Focusing on TOD and Pedestrian focused mobility is an equitable answer to Urban mobility and population health.

The plan could improve on breaking down “pedestrian” to include higher at-risk pedestrian populations, and people who already live with mobility difficulties. Older populations and people with disabilities are not mentioned in this comprehensive plan, but stand to gain or lose the most in terms of urban mobility.

# CHAPTER 2: Mobility, Environment, and Climate

## Recommendations - Mobility

- *Install Surge/Variable Pricing for On-Street Parking Areas.*

As transit is readily available to travel to and from the area itself, decreasing commuter travel is a cross-cutting goal, and automobile traffic has numerous health impacts, it is recommended to use new, and relatively feasible, tactics to discourage commuter traffic. Variable pricing for on-street parking areas is shown to reduce overall demand for parking while increasing city revenue during in-demand times.

- *Create Micromobility Parking and Storage Areas in Otherwise Unused/Underutilized Street Spaces*

Also relatively easy to accomplish, permanent micromobility parking and storage in areas, such as street corners and near parks, increases mobility for residents, provides new revenue streams for the City, and impacts commuter decision-making by offering low cost alternatives.

- *Develop and Install Roundabouts in Areas with High Pedestrian Traffic and Current 4-Way Stops*

While design and development guidance for Right of Way widths makes many intersections potentially too “tight” for full roundabouts, there are numerous intersections which would benefit from them. Particularly, 12th St and Madison Ave, an intersection with lack of pedestrian infrastructure, would be a suitable candidate for roundabout installation.

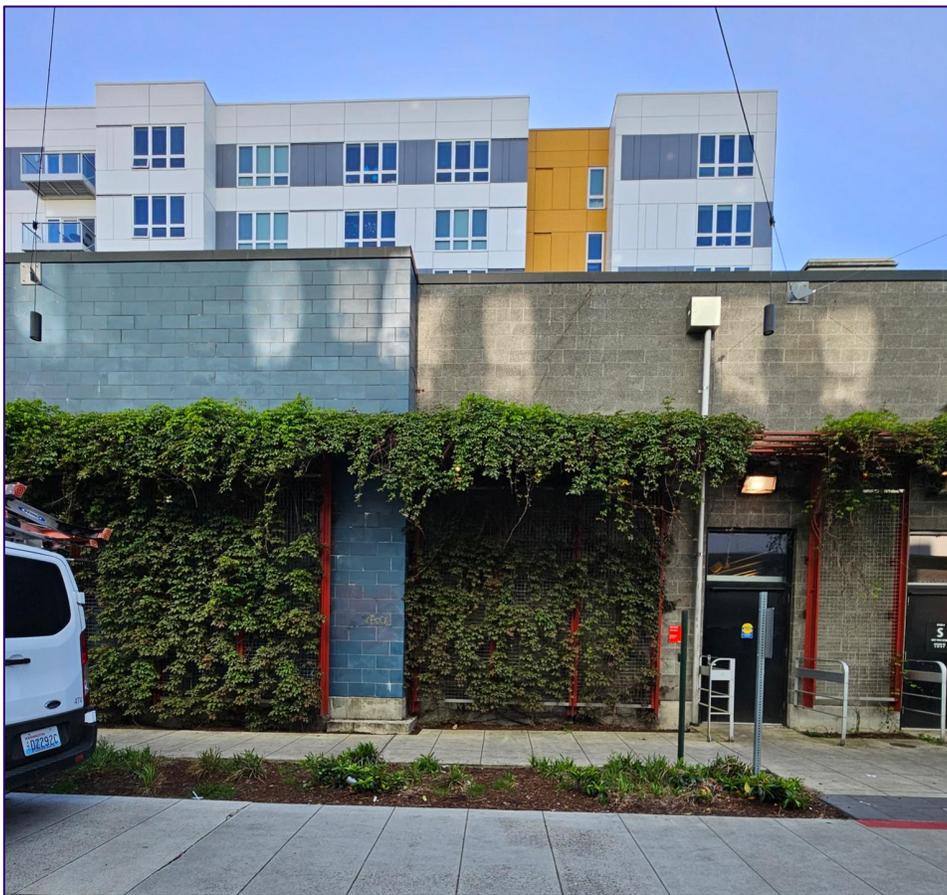
- *Invest and Increase the Amount of Protected Bike Lanes in the Neighborhood*
- *Invest in measures that increase walkability to resources and nature spaces for older adults and people with disabilities. Especially in regards to access to health services in the First Hill neighborhood.*

# CHAPTER 2: Mobility, Environment, and Climate

## Introduction - Environment and Climate

### *Introduction*

The places that people live, work, play, and pray contribute to their health by determining the level of exposure to hazards that can cause harm. According to the World Health Organization “clean air, stable climate, adequate water, sanitation and hygiene, safe use of chemicals, protection from radiation, healthy and safe workplaces, sound agricultural practices, health-supportive cities and built environments, and a preserved nature are all prerequisites for good health” (World Health Organization, n.d.). Global climate change already impacts the severity of environmental hazards and related health issues (Atwoli et al., 2021) and this effect is predicted not only to continue but also accelerate. In this section, we will discuss the impacts of green space, air quality, heat, and noise pollution on human health.



View of incorporated green space (wall ivy) at a storefront in Capitol Hill.  
*Photo credit: Rachael Carter.*

# CHAPTER 2: Mobility, Environment, and Climate

## Literature Review - Environment and Climate

### *Green Space*

Access to quality green and public spaces has documented positive influences on mental, physical, and social health. Parks, playgrounds, and vegetation in public areas are key elements of these strategies. Air pollution encompasses multiple toxins and chemicals, each with different effects on health. Air pollution exposure is associated with adverse health effects of every organ system including cardiovascular distress, asthma, neurological damage, reproductive damage, and exacerbation of existing medical diagnoses (Feng et al., 2023; Boogaard et al., 2022; Lederer et al., 2021; Peters et al., 2019). Populations most at risk include children and elderly people, people with asthma and other existing diagnoses, outdoor workers, and those experiencing high cumulative impact burden. Cumulative impact burden takes into account each toxic exposure an individual has over their lifetime to try and capture the overall health effects of the individual instead of the effects of each separate toxic event.

### *Air Quality*

The Clean Air Act defines regulations around six criteria air pollutants: carbon monoxide, lead, ground-level ozone, nitrogen dioxide, particulate matter, and sulfur dioxide (US EPA, 2015). Carbon monoxide lowers the amount of oxygen that is carried in the blood. Outdoor exposure to carbon monoxide increases risk of cardiovascular events like heart attack and stroke (US EPA, 2016). Ground-level ozone is associated with damage to the airways, exacerbation of asthma, and other lung disease (US EPA, 2015). Particulate matter is a general term for airborne particles. These particles can hold a variety of toxins and are usually characterized by size. The most commonly measured and studied particulate matter are particles 2.5 micrometers or less, called PM 2.5. PM 2.5 has numerous adverse health effects, but the strongest association is an increase of cardiovascular events like heart attack (Lederer et al., 2021). Wildfire smoke can cause respiratory and cardiovascular symptoms in all populations by increasing particulate matter and ozone concentrations (Hayes, 2018).

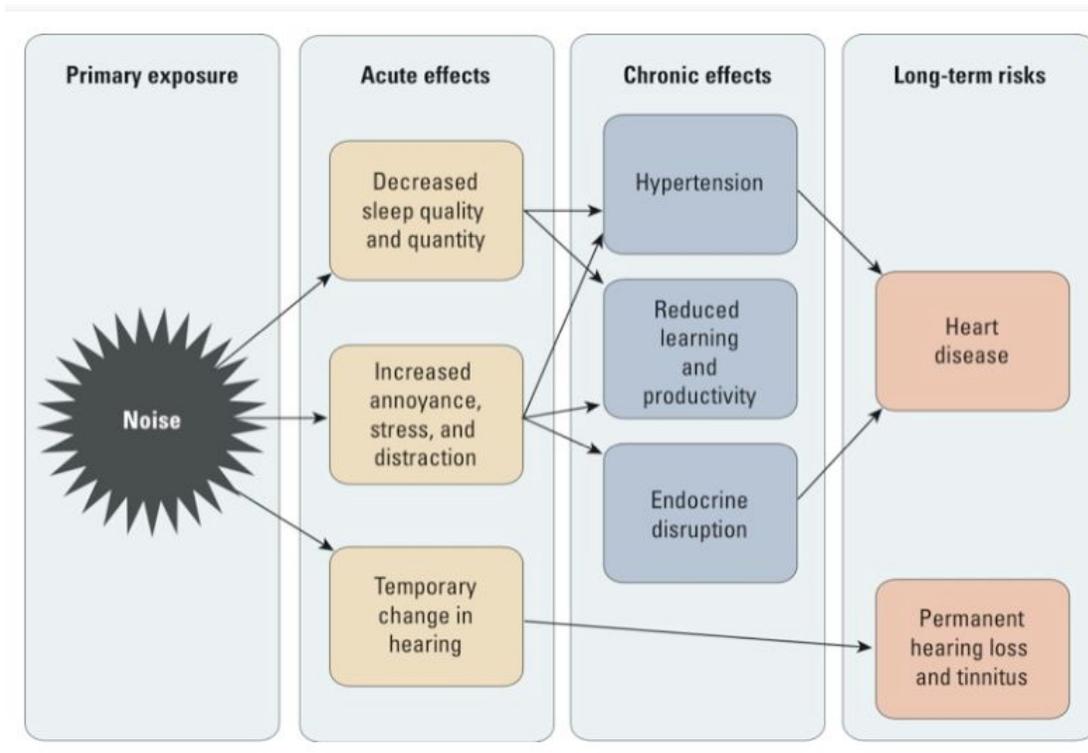
Globally, most air pollution is created by burning fossil fuels (Hayes, 2018). Common sources of air pollution in the Capitol Hill subarea are vehicle emissions, wildfires, and industrial processes.

# CHAPTER 2: Mobility, Environment, and Climate

## Literature Review - Environment and Climate

### Noise Pollution

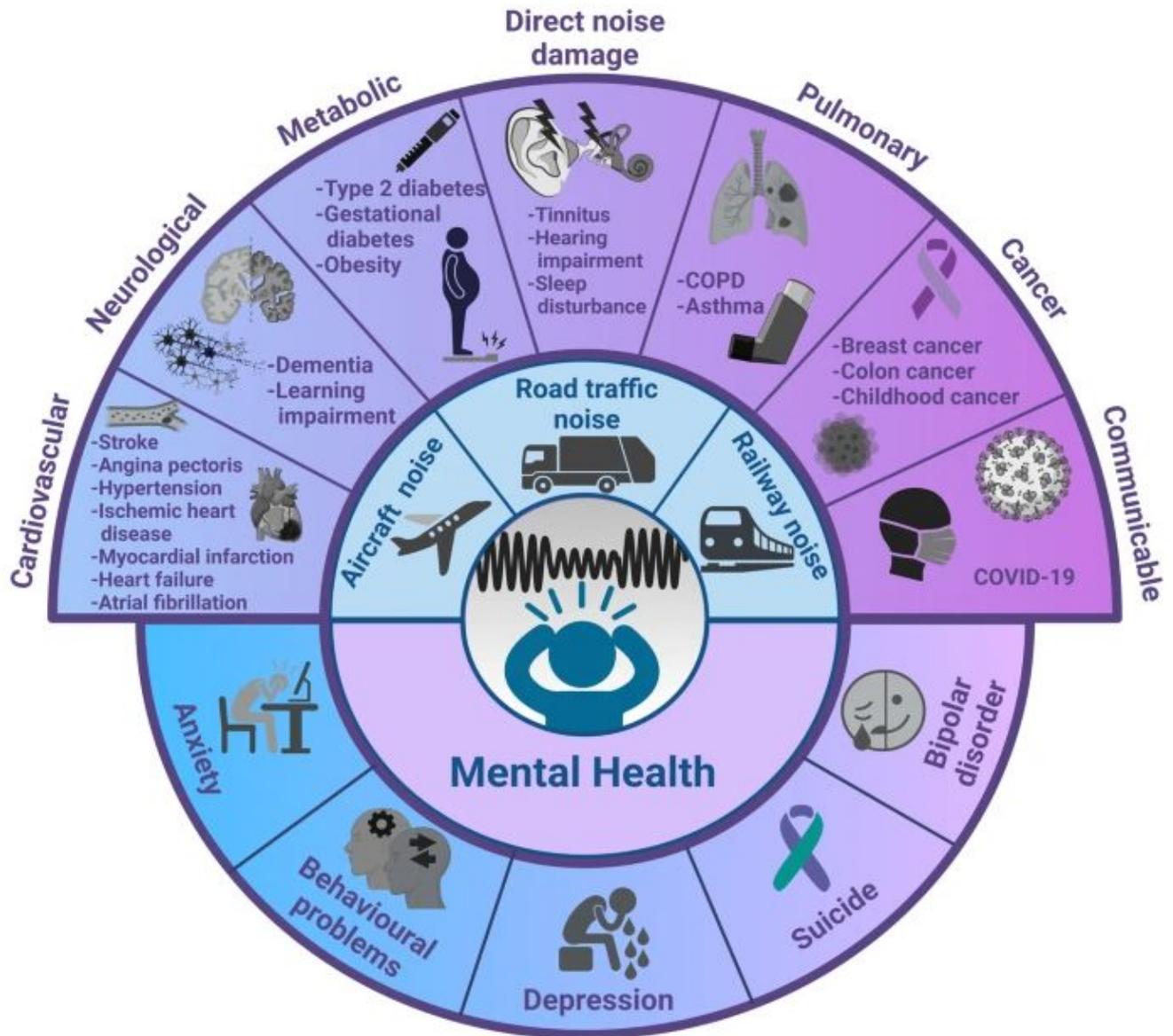
Noise pollution, a prevalent environmental issue in urban areas across the U.S., critically affects resident quality of life. Primary sources include traffic from the air, land, and railways, as well as ongoing construction activities. Noise from vehicles is not only generated by engines but also from horns, alarms, and the interaction of tires with road surfaces. Prolonged exposure to such noise can lead to various health problems, including hearing impairment, cardiovascular issues like hypertension, sleep disruptions, endocrine effects, and increased stress levels (Hammer et al., 2014). A diagram of select health impacts from noise exposure is provided in Figure 14. Noise has immediate and long-term detrimental health effects that deteriorate residential, social, work and learning environments, resulting in perceivable impacts on economic productivity and human well-being (Goines & Hagler, 2007). Figure 15 includes a diagram showing noise sources and their effects on health (Hahad, et al., 2024).



**Figure 14.** Select health impacts of noise exposure (Hammer et al., 2014).

# CHAPTER 2: Mobility, Environment, and Climate

## Literature Review - Environment and Climate



**Figure 15.** A diagram showing noise sources and their effects on health (Hahad et al., 2024).

# CHAPTER 2: Mobility, Environment, and Climate

## Literature Review - Environment and Climate

### Heat Impacts

Heat exposure can cause illness and death due to heat exhaustion and heat stroke which can range in severity. Heat exposures also increase cardiovascular events, kidney damage, and respiratory disease (Hayes, 2018). Further, increased heat is associated with occupational injuries, increased drowning, and violence (Hayes, 2018; Fralick et al., 2013; Anderson, 2001). Populations most at risk from heat exposure include children, older adults, outdoor workers, and those with insecure housing.

The urban heat island effect exacerbates extreme heat. Cities and industrial land experience higher temperatures due to impervious surfaces, like those used for roads and buildings, which absorb and retain heat. Similarly, green space and tree canopy reduce the surrounding temperature (Ettinger et al., 2024). This trend is linear, with each tree contributing to the surrounding 10 meters in urban environments (Ettinger et al., 2024). Ambient temperatures are increasing due to climate change globally, with major implications for future extreme heat exposure.

# CHAPTER 2: Mobility, Environment, and Climate

## Baseline Conditions - Environment and Climate

### *Green Space*

The Capitol Hill and First Hill neighborhoods present a mix of green spaces interspersed within a densely urbanized environment. As of 2021, these neighborhoods have seen a decline in tree canopy cover, with a net loss of 30 acres and a 2.7% relative decrease since 2016, according to the City of Seattle Office of Sustainability and Environment (CSOSE, 2021). Some areas in the southwest of First Hill experienced significant reduction of tree canopy with a 15%-26% loss (CSOSE, 2021). Several additional areas in Capitol Hill experienced relative losses of 0% to 4% (CSOSE, 2021). Despite the reduction, green spaces in these areas include small parks, community gardens, and tree-lined streets that provide vital health and social benefits. Key green spaces include Volunteer Park, Cal Anderson Park, the Seattle University campus, Yesler Terrace Park, and Freeway Park. However, ongoing development pressures continue to challenge the preservation of these crucial urban green spaces, highlighting the need for careful urban planning to maintain the existing green infrastructure.

The Seattle Parks and Recreation (SPR) 2024 Seattle Parks and Open Space Plan identified a service gap located in the First Hill neighborhood. This area was located between the Harborview Medical Center, Swedish Medical - First Hill, Seattle University, and Swedish Medical - Cherry Hill (SPR, 2024). Service gaps identified by SPR prioritize areas where property acquisition for open space should be prioritized and are informed by a mapping methodology that includes race, social equity, health, poverty, income, and population density data (SPR, 2024).

Additionally, the Outside Citywide Public Space Explorer, a tool developed through the Seattle Office of Planning and Community Development to identify and understand priority areas for public space improvements, shows multiple areas within First Hill and one in Capitol Hill as areas of highest priority for improvements (OPCD, n.d.-b). The areas are identified using data on existing public space access, racial and social equity, and “park pressure.” Racial and social equity is based on using the City’s Race and Social Equity Index, and “park pressure” is calculated as the ratio between neighborhood population and the total acres of all public spaces within a 10 minute walk (OPCD, n.d.-b).

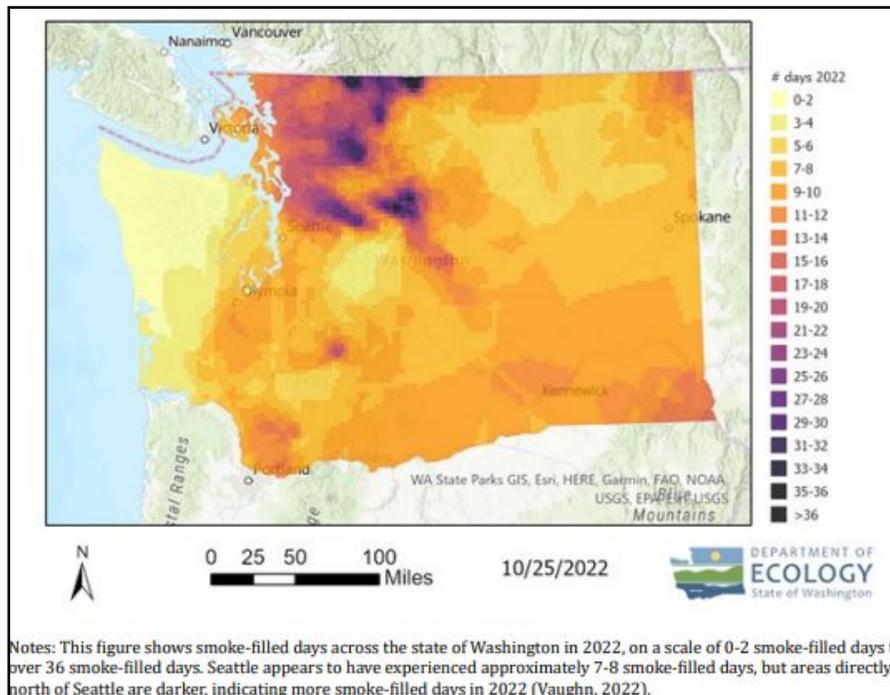
# CHAPTER 2: Mobility, Environment, and Climate

## Baseline Conditions - Environment and Climate

### Air Quality

Capitol Hill Subarea ranks 9 out of 10, with 10 being the worst, on air exposures on the Washington Environmental Health Disparities map. It ranks with a 10/10 ranking in diesel exhaust emissions, proximity to heavy traffic roadways, toxic releases from facilities, and proximity to hazardous waste treatment storage and disposal facilities. Capitol Hill and First Hill are bordered on the west side by the I-5 highway and are in close proximity to Highway 90 and Highway 520. Each of these high-traffic roads are major contributors to air pollution. Air quality is generally consistent between the north and south sides, with it being worse near the I-5 highway (Capitol Hill EcoDistrict, 2023).

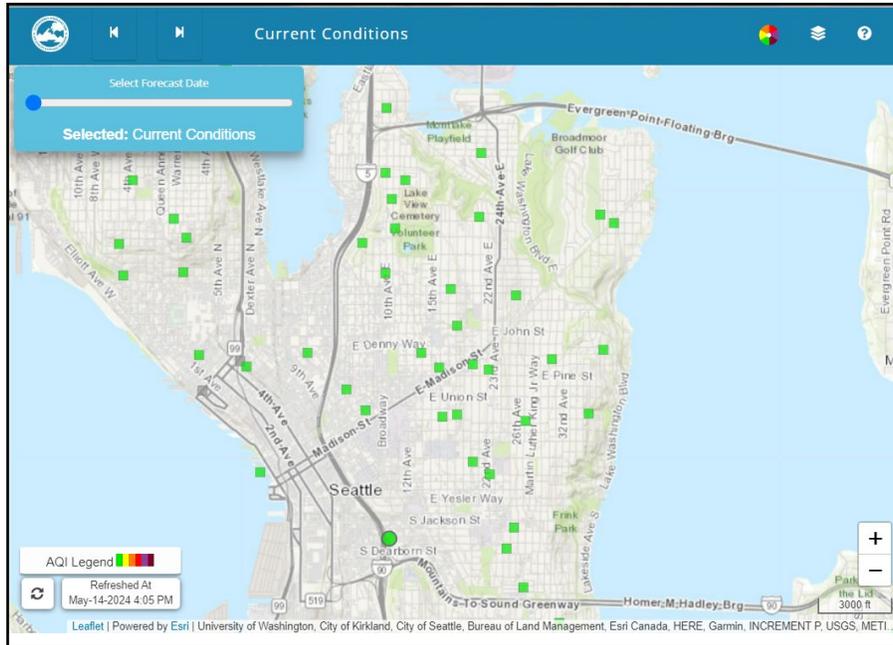
Seattle also had approximately 7 to 8 smoke-filled days in 2022 (Figure 16), with projections indicating more frequent and more intense smoke-filled days in the future (Vogel et al., 2023). The city also has approximately 7 to 8 days of high ozone exposure (Capitol Hill Ecodistrict, 2023). In Figure 17, air monitors connected to the Washington Department of Health monitoring system are shown, with only a few located in the Subarea (Washington Department of Health, n.d.).



**Figure 16.** Number of smoke-filled days in 2022 in Washington State (Washington Department of Ecology, n.d.).

# CHAPTER 2: Mobility, Environment, and Climate

## Baseline Conditions - Environment and Climate



**Figure 17.** Map of air monitors contributing to Washington Department of Health AQI service (Washington Department of Health, n.d.).

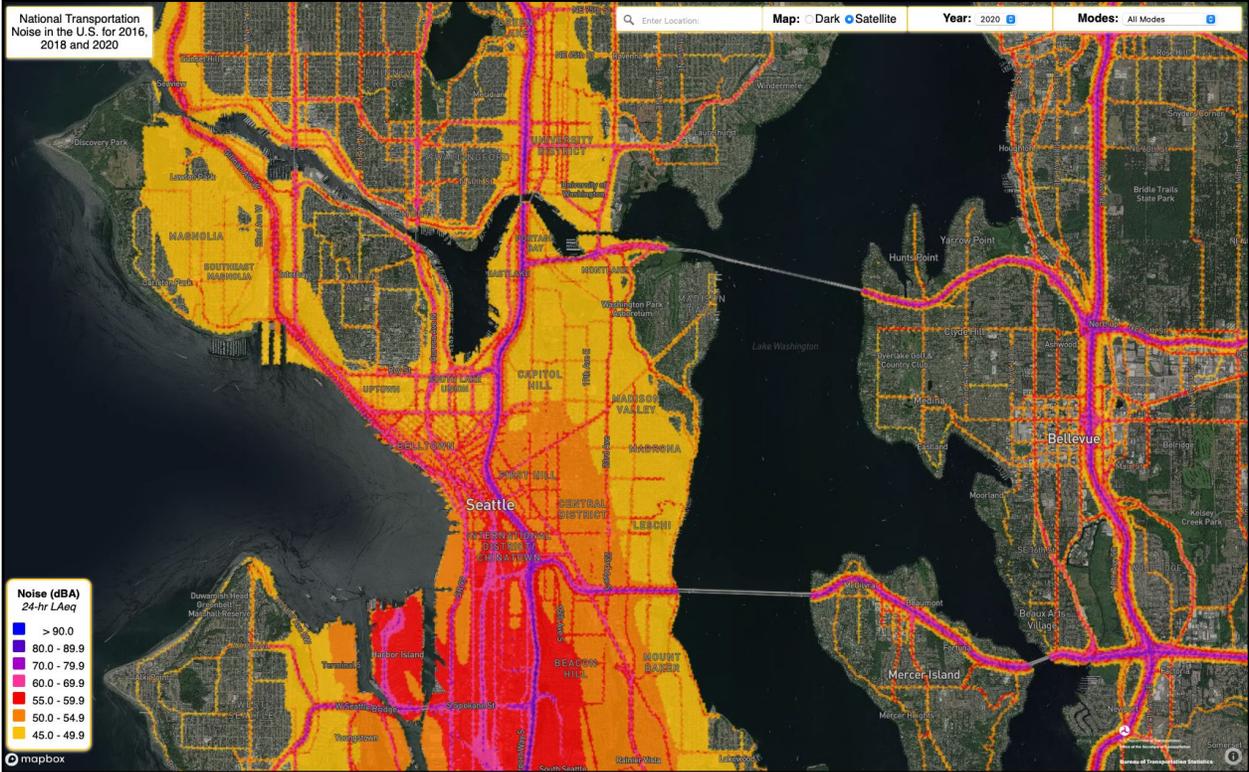
According to King County Hospitals Community Health Needs Assessments, cancer and heart disease remain the top two causes of death in the county. Both of these health outcomes are impacted by air pollution. Approximately 5% of Medicaid member children have an asthma diagnosis, an increase from 2019 (King County Hospitals for a Healthier Community, 2024).

### *Noise Pollution*

Capitol Hill in Seattle experiences significant noise pollution due to its proximity to Interstate 5, Highway 90, and Highway 520, which are major noise pollution sources in the area. Additionally, high-traffic roads such as 23rd Ave., Boren Ave., Madison St., and Martin Luther King Jr. Way contribute to the overall noise levels. The Seattle Streetcar First Hill Line, which runs along Broadway, and a segment of the Sound Transit Link 1 Line, which passes through the western part of this subarea, also adds to the noise (City of Seattle, 2024). The Capitol Hill neighborhood, primarily residential with minimal industrial noise, faces considerable construction noise due to ongoing development (Myers, 2015). Frequent air traffic and numerous noise complaints from disturbance calls to the Seattle Police Department exacerbates the noise pollution. These factors make Capitol Hill one of the noisier neighborhoods in the city, impacting resident health due to prolonged exposure to high noise levels. This assessment is critical for understanding the potential health impacts on the community. Figure 18 below shows a 2020 map of air, road, and rail noise levels in the Seattle area (U.S. Department of Transportation, n.d.).

# CHAPTER 2: Mobility, Environment, and Climate

## Baseline Conditions - Environment and Climate



**Figure 18.** 2020 map of Air, Road, and Rail noise levels in Seattle area (U.S. Department of Transportation, n.d.).

# CHAPTER 2: Mobility, Environment, and Climate

## Baseline Conditions - Environment and Climate

### *Heat Impacts*

The average annual air temperature in the Puget Sound region is increasing and is projected to be 5.5 degrees Fahrenheit warmer in the 2050s. The Pacific Northwest may experience an additional 7 to 15 days above 95 degrees Fahrenheit by 2050 (Hayes, 2018). Seattle has seen increased mortality with increased heat exposure over the past several years (Isaksen et al., 2016).

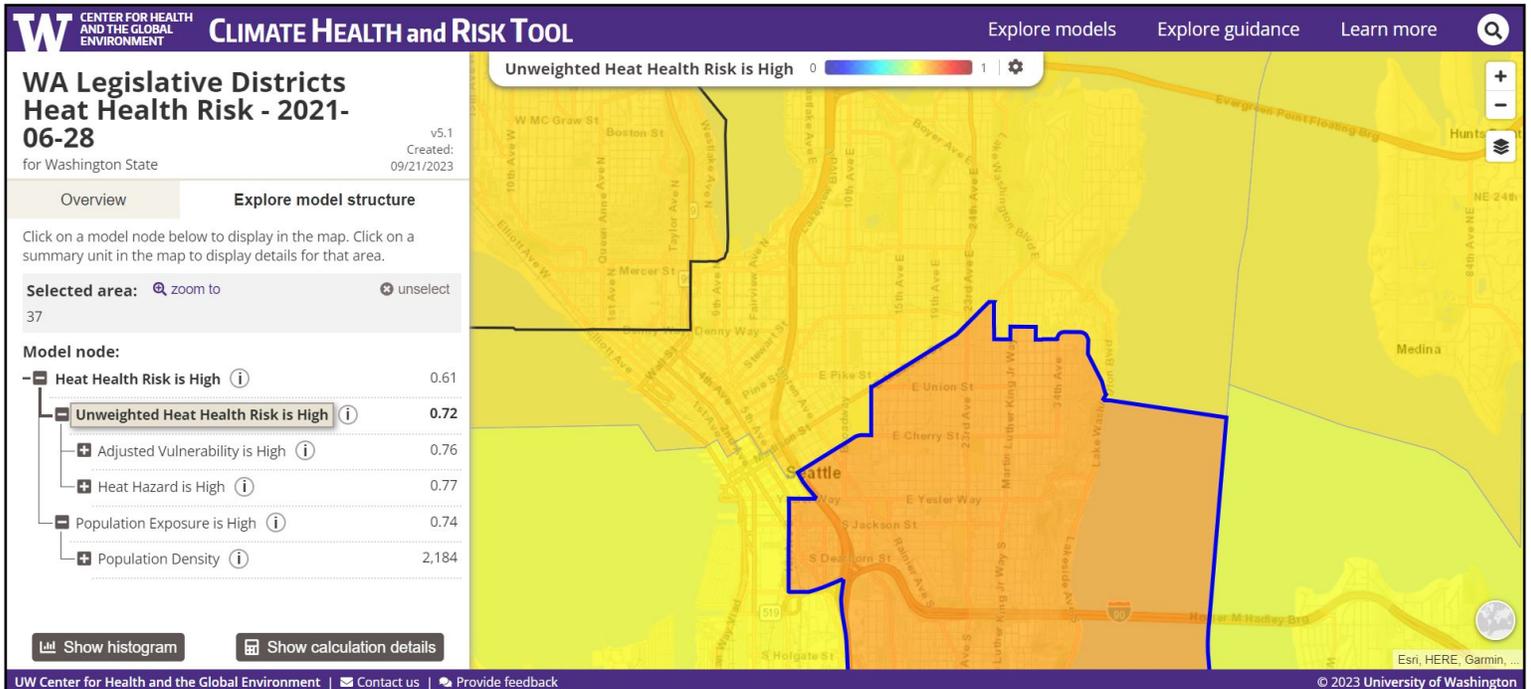
In 2021, Seattle experienced an extreme heat dome that resulted in an estimated 126 heat-related deaths, increased emergency room visits, and buckling roads (Vogel et al., 2023). Because of Seattle's historically mild summers, air conditioners are uncommon, increasing the number of people without adequate home cooling, with a disproportionate impact on low-income communities. Using the Washington Legislative Districts Heat Health Risk tool (Figure 19), health risk mapping shows heat health risk on the north side of the subarea is at 0.65 and 0.72 on the south side. Further heat mapping shows a five to ten degree increase in South Capitol Hill compared to North Capitol Hill (Capitol Hill EcoDistrict, 2023). Further findings from the heat dome event showed that "large paved areas like Seattle Central College Campus on Broadway can reach 23 degrees hotter than that of canopied green space like Volunteer Park" (Capitol Hill EcoDistrict, 2023).

Increased ambient temperature is associated with increases in unintentional injuries (Kampe et al., 2016). Unintentional injury deaths were identified as a top cause of death for King County in 2021, with increasing rates in Seattle. Moreover, First Hill neighborhood had the highest rate of unintentional injury deaths at four times the King County average (Public Health-Seattle and King County et al., 2023).

Additionally, Seattle is losing tree canopy, with a measure of 28.1% coverage in 2021, down from 28.6% in 2016 (City of Seattle Office of Sustainability and Environment, 2021). This loss has been disproportionately impacting neighborhoods with severe racial and economic inequities, including the southern neighborhoods of the Capitol Hill subarea, more so than the rest of Seattle (City of Seattle Office of Sustainability and Environment, 2021).

# CHAPTER 2: Mobility, Environment, and Climate

## Baseline Conditions - Environment and Climate



**Figure 19.** Climate Health Risk Tool showing heat hazard during 2021 extreme heat dome event. Areas south of Madison Street experienced higher heat risk (Sheehan et al, 2023).

# CHAPTER 2: Mobility, Environment, and Climate

## Assessment - Environment and Climate

### *Green Space*

There are multiple needs relating to public open spaces and green spaces within the Subarea Plan. The policies focus on creating safe, accessible, and well-maintained parks and open spaces that meet the current and future needs of the community. They seek to integrate green spaces into commercial areas and transit corridors, enhance existing parks, and explore opportunities for new recreational spaces such as pocket parks and community gardens. Overall, the plan aims to ensure that all neighborhoods have adequate and diverse green spaces to support a growing population.

However, the plan has the opportunity to advocate for higher quality and more specific green space objectives and goals, and bolster existing parks that are representative of the community and character of the neighborhood. Key areas of lack need to be addressed and efforts to reverse trends in the decline of urban tree canopy. In areas of dense development there are opportunities to provide green space benefits in alternative spaces. Potential opportunities could include the use of rights-of-way for green space, exploration of cooperative agreements with public or private agencies to expand open space, the redesign of single-purpose green spaces, and the addition of green roofs to new developments. The City of Seattle Department of Construction & Inspections created a metric called the Seattle Green Factor, which is a score-based code requirement that enhances landscaping of new developments (SDCI, n.d.-a). A higher Seattle Green Factor score will improve the aesthetics of a neighborhood and for local businesses, reduce stormwater runoff, offer cooler areas during heat waves, provide enhanced animal habitat, and lower crime (Seattle Department of Construction & Inspections, n.d.).

Green space can play an important role in benefiting resident's health. There is strong evidence that links green spaces to improved mental health and stress reduction (de Vries, 2010; Gascon et al., 2015; World Health Organization, 2016). In addition, access to green spaces provides more opportunities for physical activity, facilitates social interactions, and offers a safe environment for engaging in healthy activities without an increased risk of injury.

# CHAPTER 2: Mobility, Environment, and Climate

## Assessment - Environment and Climate

### *Air Quality*

The 2015 Subarea Plan does not include “air quality” explicitly. However, it does include policy CH-P21, “Strive to maintain and enhance environmental quality in the neighborhood’s public spaces,” which can include air quality. While public spaces are an important aspect of environmental exposure to air pollution, all places where people spend time should be included in “enhanced environmental quality.” There is an opportunity to include air quality specifically in the Subarea Plan and expand the policy to include all facets of the neighborhoods including residential, recreational, and commercial areas.

The 2015 Comprehensive Plan appendix mentions air pollution in two main contexts: the possibility of pollution abatement through landscaping and green roofs as part of I-5 lid feasibility study and in relation to reducing driving. Covering I-5 through Capitol Hill and First Hill would reduce exposure to particulate matter and diesel emissions in the area by physically isolating the vehicles. This reduction would be enhanced by additional greenspace and plant mass on the lid itself. The 2015 Comprehensive Plan also includes policies to promote transit-oriented development and pedestrian-centered commercial areas. These policies would reduce vehicle traffic and associated emissions. These policies would lead to higher air quality and decreased risk of pulmonary and cardiovascular disease.

An overall increase in housing and business density may lead to increased air pollution due to higher energy consumption and vehicle traffic. Mobility, transit, and green space are important modulators of air pollution. Please refer to these respective sections for additional information.

# CHAPTER 2: Mobility, Environment, and Climate

## Assessment - Environment and Climate

### *Noise Pollution*

Although noise is expected within dense urban environments, further construction and development based on the planning goals for the Capitol Hill and First Hill Neighborhoods is likely to increase noise pollution. Policies that may contribute to a rise in noise levels in the area include housing policies that call for increased density and new development on underutilized sites, and economic policies that encourage longer hours of operation and goals for a thriving nightlife scene. In addition, residents' proximity to highly trafficked areas adds to the accumulative effect of noise pollution.

Given the high density of residential areas and prevalence of working individuals and students, sleep quality is important. Chronic noise from traffic and construction can significantly disrupt sleep patterns, negatively affecting daytime alertness and performance, impairing cognitive performance, and decreasing quality of life (Basner, et al. 2014). There are also numerous schools and educational institutions within the area, making it important to address noise pollution to prevent its adverse effects on cognitive functions and learning (Welch, et al. 2023). Persistent noise pollution can elevate stress levels, anxiety, and depression, impacting the mental health of residents who may already face various social and psychological stressors (Hahad, et al. 2024).

While the Subarea Plan cannot mandate specific solutions for mitigating environmental noise, recommendations can be made to improve residents' health outcomes. These include reassessing construction practices and enforcing stricter noise mitigation requirements for new developments. Policies to reduce traffic, promote active mobility, and expand green open spaces can also help lower noise levels. Additionally, continuing efforts to assess and construct a lid over I-5 could significantly address the area's major source of noise pollution.

# CHAPTER 2: Mobility, Environment, and Climate

## Assessment - Environment and Climate

### Heat Impacts

“Heat” is not mentioned in the 2015 Subarea Plan, but is included 3 times in the plan appendix concerning the effect of hardscape in the city and the plan to lid the I-5 highway. Similarly to air pollution, heat is assumed to be included in CH-P21 under “enhanced environmental quality.” The inclusion of permeable surfaces, landscaping, trees, and green roofs in a lid over I-5 would decrease the heat exposure in the subarea and similarly decrease the likelihood of cardiovascular events and unintentional injury deaths.

Policies FH-P12 and H-P6 encourage a twenty-four hour activity climate throughout the neighborhood and longer hours of operation for businesses respectively. These policies could decrease heat exposure in conjunction with recommendations to move outdoor work and recreational activities to early and late hours. Avoiding peak sunlight and heat during the afternoon is an important strategy to avoid heat stress by limiting exposures.

Increased development has the potential to increase heat risk by replacing greenspace with impervious surfaces and contributing to the urban heat island effect. Building codes that require adequate ventilation and air conditioning can decrease heat exposure for those with access to indoor spaces. Green space, including tree canopy, is one of the most impactful modulators of heat. Please see the green space section for more information.

# CHAPTER 2: Mobility, Environment, and Climate

## Assessment - Environment and Climate

### *Equity Assessment*

Accumulating evidence suggests that urban green spaces can be "equigenic," providing significant health benefits, particularly for lower socioeconomic groups and minority ethnic groups (Mitchell et al., 2015). Studies in England and the U.S. show that access to green spaces lowers health disparities, reducing mortality and psychological distress among deprived populations (Mitchell & Popham, 2008; Pope et al., 2015). Improved access to green spaces encourages outdoor activities, enhancing physical, mental, and social health (Ward Thompson et al., 2013).

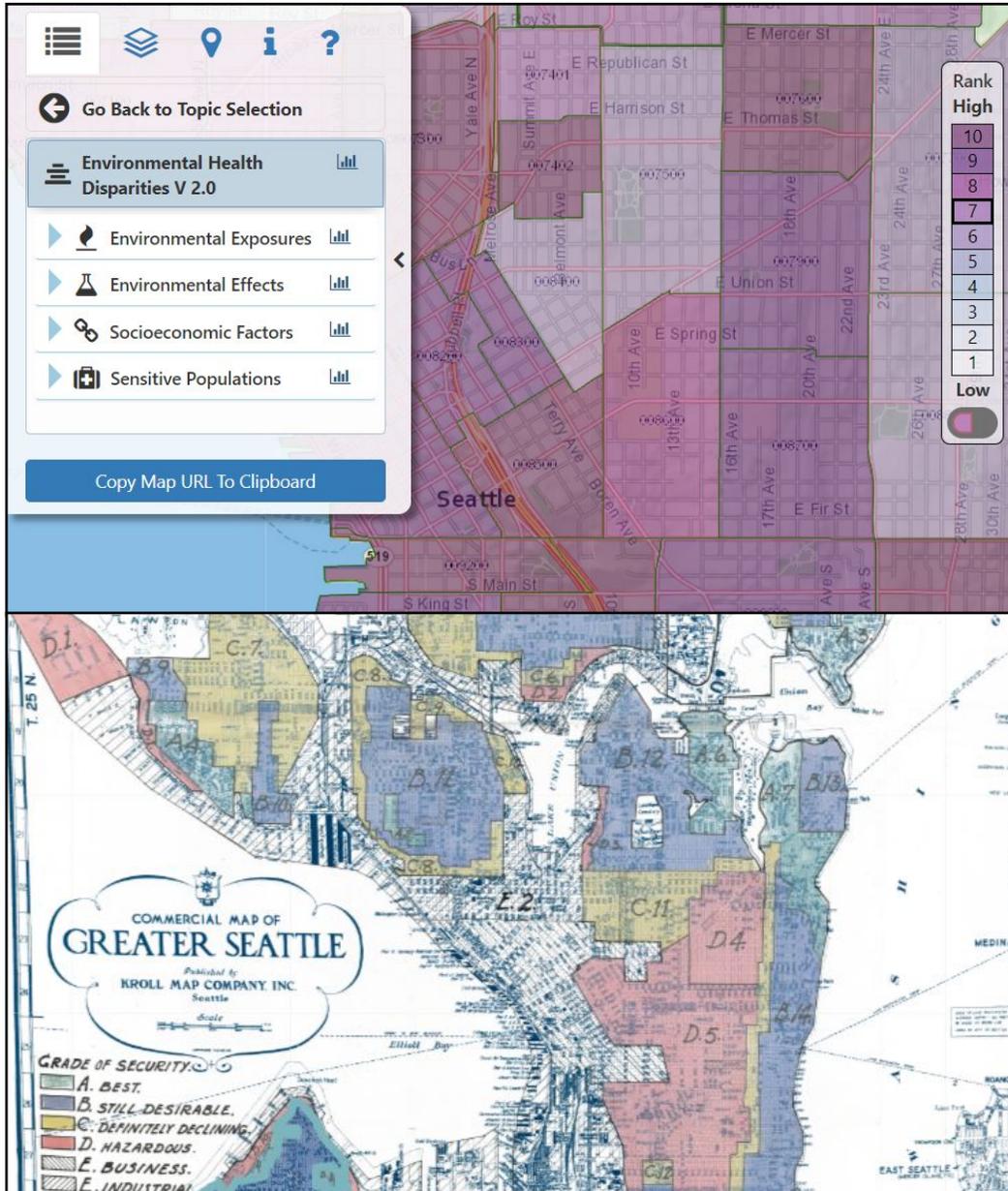
Green spaces also mitigate poor air quality and extreme heat, which disproportionately affect deprived communities, further reducing health disparities (Grant et al., 2012; Naess et al., 2007). Evidence shows that urban green spaces provide significant health benefits, especially for economically deprived communities, children, pregnant women, and seniors. Therefore, it's crucial to ensure adequate green space, prioritizing disadvantaged communities. Overall, better access to green spaces can significantly narrow socioeconomic health gaps (World Health Organization, 2016).

Multiple environmental exposures in the Capitol Hill subarea have disparities between the north side of the neighborhood and the south. Many of these inequities are associated with systemic racism, which can be seen in redlining practices. In the historic redlined maps of Seattle, the area north of Madison Street was designated a "C- Definitely Declining" status. Areas south of Madison Street were designated "D-Hazardous" status with the description "This district is composed of various mixed nationalities. Homes are occupied by tenants in a vast majority. Homes generally old and obsolete in need of extensive repairs" (Nelson et al., 2023). While redlining practices are no longer used, the legacy of the policy is still evident in Capitol Hill and First Hill.

Washington's Environmental Health Disparities map shows that while the subarea has overall highly ranked disparities, the southern neighborhoods have greater exposures and adverse health outcomes than the north (University of Washington Department of Environmental and Occupational Health Sciences, 2019). Figure 20 indicates screenshots of current equity mapping matched against historical redlining maps (University of Washington Department of Environmental and Occupational Health Sciences, 2019).

# CHAPTER 2: Mobility, Environment, and Climate

## Assessment - Environment and Climate



**Figure 20.** Equity analysis and Seattle “Redlining” Map. (University of Washington Department of Environmental and Occupational Health Sciences, 2019).

# CHAPTER 2: Mobility, Environment, and Climate

## Recommendations - Environment and Climate

### *Green Space*

- Incentivize the installation of green roofs on both new and existing buildings.
- Suggest to the Seattle Office of Sustainability and Environment (OSE) setting a mandatory Seattle Green Factor score for all new developments within the subarea to ensure a minimum level of green infrastructure and/or provide incentives for exceeding standards
- Identify opportunities to convert rights-of-way in to green spaces
- Explore and establish cooperative agreements with public and private agencies to enhance access to open spaces, and to increase the tree canopy and green areas they provide.
- Establish clear metrics to evaluate the success of green space in the area by utilizing information from the canopy assessment and work done by the Seattle Parks and Recreation.
- Establish and prioritize safe connections to new and existing green spaces by implementing the mobility recommendations and the [Seattle Neighborhood Greenways program](#)
- Maintenance recommendations for green spaces to ensure safe and accessible public and play spaces
- Be clear about objectives of green space planning, including the size and type of green space encouraged.

### *Noise*

- Limit hours for construction activity within the neighborhood. Stop construction by 7pm on weekdays, 6pm on Saturdays, and don't allow construction on Sundays. Ensure that protections for construction workers are in place for adjusted hours, especially while working in high heat conditions outdoors.
- Ensure that all new residential developments are designed and constructed to minimize noise pollution by requiring early-stage noise assessments, integrating effective noise mitigation measures into the design and construction process, and promoting continuous monitoring and community feedback. Recommendations include integrating noise insulation into building designs, using materials that absorb sound, and designing layouts to position noise-sensitive rooms away from noise sources.

# CHAPTER 2: Mobility, Environment, and Climate

## Recommendations - Environment and Climate

### *Air Quality*

- Implement green space and tree canopy recommendations
- Provide and place air monitors south of Madison Street. Ensure that the information from the new air monitors are included in the city's calculation of AQI. Potential sites at Yesler Terrace Community Center, universities, and hospitals.
- Implement the mobility recommendations
- Require new development including housing to include HVAC systems and/or MERV 13 filters for air intake
- Provide HVAC and/or MERV 13 air filter updates for community facilities, like libraries and designated cooling centers.
- Post air quality index information in frequently used areas like Cal Anderson Park and Yesler Terrace Community Center. Ensure that information is easy to understand, following the example of Fire Danger Signs
- Include infrastructure allotments for renewable energy options in new development

### *Heat Management*

- Implement green space recommendations
- Prioritize tree planting in southern area of Capitol Hill to reach goal of 30% tree cover in line with the City of Seattle goal. Ensure trees are well suited to the area and vary species to limit allergen burden.
- Map transportation infrastructure that is vulnerable to heat damage (buckling) and designate alternative travel routes for critical transportation corridors when roads must be closed.
- Move outdoor worker hours to be outside of peak sun hours during summer months and when heat health risk is high.
- Establish cooling centers as described in the Seattle Heat Action Plan
- Provide temporary shade structures for outdoor workers and outdoor community spaces during summer months
- Incentivize use of albedo (sunlight reflection) management materials in building and building repairs to reduce heat hazards from materials that absorb sunlight
- Require AC in new public buildings, commercial buildings, and cooling centers
- Post heat risk information in frequently used areas like Cal Anderson Park and Yesler Terrace Community Center. Ensure that signage is easy to understand following the example of Fire Danger signs.

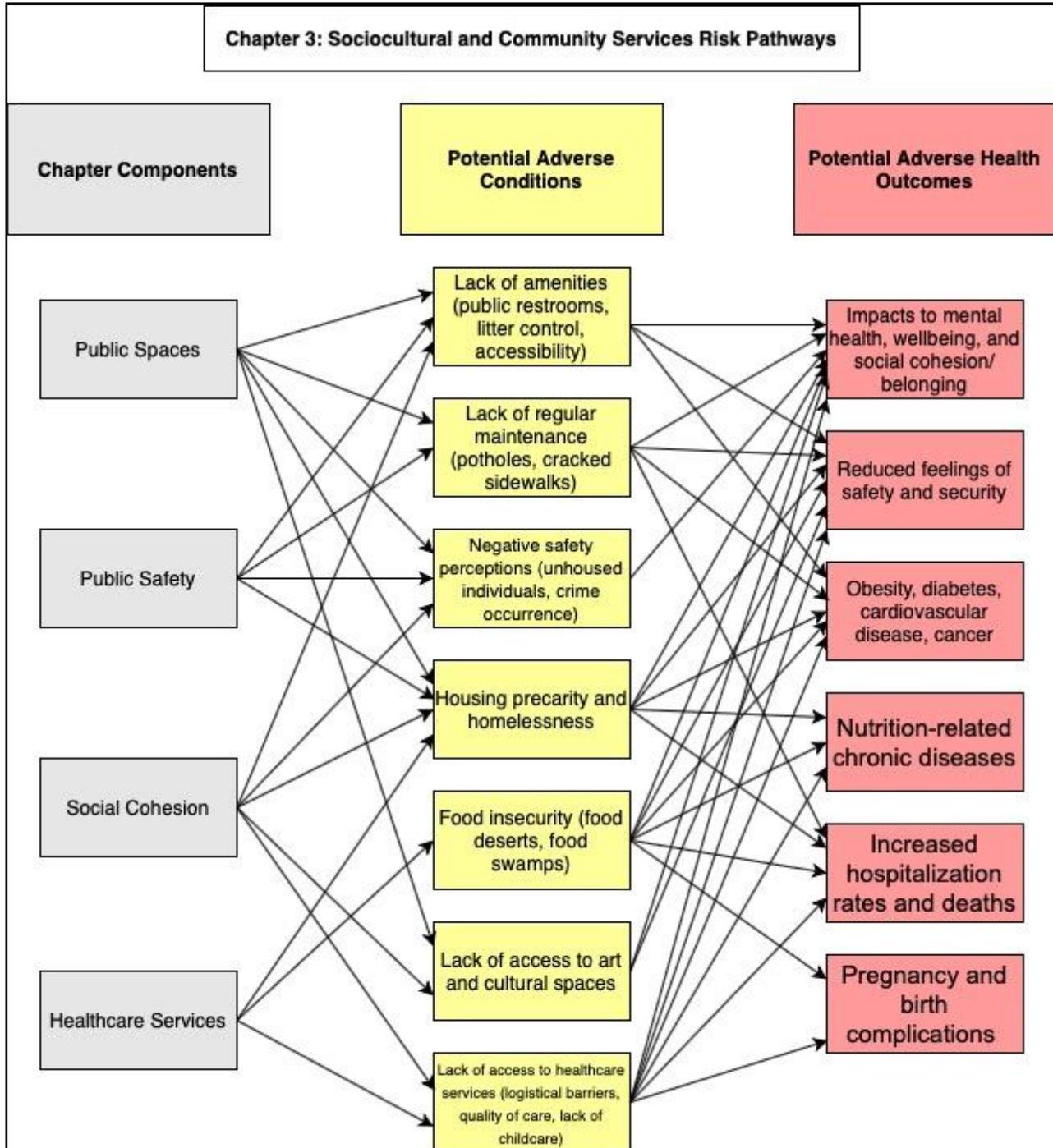
# **CHAPTER 3:** **Sociocultural and Community Services**



*Photo credit: Patricia Au*

# CHAPTER 3: Sociocultural and Community Services

## Risk Pathways Diagram



**Figure 21.** Causal pathway diagram for sociocultural and community services (UW HIA Team, 2024).

# CHAPTER 3: Sociocultural and Community Services

## Public Spaces and Public Safety

### Literature Review

Public spaces include publicly accessible parks, plazas, streets and sidewalks, and other community spaces. The First Hill / Capitol Hill Urban Center contains a number of public libraries, community and activity centers, and large greenspaces such as Volunteer Park, Cal Anderson Park, Streissguth Gardens, and Freeway Park. The connection between public spaces and health is well documented in the academic literature. Figure 21 provides a causal pathway diagram demonstrating the links between sociocultural and community services and adverse health outcomes. Public spaces are associated with improved well-being, increased feelings of safety and security, and enhanced community and civic participation (Francis et al., 2012). Interactions in public spaces arise from public art projects, restaurants, shared benches, and connected pathways offering a sense of community and social support (Francis et al., 2012). These resources can also have positive equitable impacts. For instance, community connectedness benefits the elderly, new parents, remote workers, less mobile residents, and lower socioeconomic groups (Francis et al., 2012).

It is important to realize that access to public spaces, such as greenspaces, is inequitably distributed. Low-income individuals, racial and ethnic minorities, youth, the elderly, and women are more likely to lack access to these environments (Williams et al., 2020). This can result in adverse physical and mental development in children, increasing rates of obesity, and poor mental health outcomes due to feelings of social isolation (Williams et al., 2020). In addition to proximal access to these spaces, safety—especially perceived

safety—can impact access (Williams et al., 2020). Poor maintenance (e.g., litter, potholes), lack of amenities (e.g., public restrooms), and the presence of law enforcement are important factors influencing resident access to open spaces. The City of Seattle has made progress on this front through initiatives like the Green Seattle Partnership and Age Friendly Seattle (Williams et al., 2020).

Public safety is a top priority for anyone making a neighborhood their home. Occurrences of crime and perceptions of public safety impact the well-being of residents. It is important to realize that crime is often perpetrated by individuals experiencing inequality and desperation (De Courson & Nettle, 2021). A society with high-income inequality, for instance, will result in individuals relying on crime to reduce their desperation. Punishment alone is not an effective deterrent since it does not meaningfully change an individual's state of desperation to discourage continued criminal acts (De Courson & Nettle, 2021). Restorative justice is a holistic and humanizing response to crime that seeks restoration for both the victim and perpetrator (Molloy et al., 2023). Crime prevention through environmental design (CPTED) refers to modifying the built environment to discourage criminal decision-making processes (Chalfin et al., 2022). This preventative approach can be cheaper than expanding local enforcement capacity and incarcerations, with examples like increasing the availability of greenspaces, restoring vacant lots, and fostering public-private partnerships (Chalfin et al., 2022). One approach—the tactical deployment of temporary street lights—has been shown to decrease crime rates in New York City (Chalfin et al., 2022).

# CHAPTER 3: Sociocultural and Community Services

## Public Spaces and Public Safety

### Baseline Conditions

Based on the City of Seattle’s Neighborhood Plans document, part of the 2015 Comprehensive Plan, the following goals and policies concerned with public spaces and public safety were identified for the First Hill / Capitol Hill Urban Center (City of Seattle, n.d.-b). In the Capitol Hill Urban Village, the public space and arts goal was to improve neighborhood amenities to serve its growing population. Policies included finding opportunities for new parks that can engage children, youth, and seniors; opportunities for open spaces conducive to transit stations and commercial corridors such as Broadway; for aesthetic and environmental improvements to public spaces; for the promotion of safety and civility; and for advancing local arts and cultural activities and institutions in the neighborhood (e.g., Cornish College of the Arts, the Susan Henry Library, and Seattle Central Community College). In addition, goals for the 12th Avenue Urban Village included promoting a mixed-use residential and commercial corridor with public spaces that encourage a sense of community between diverse neighborhoods. In the First Hill Urban Village, the public safety goal was to improve community safety for residents, workers, visitors, and shoppers. Policies included promoting increased street activity and a neighborhood watch climate as a crime deterrent, supporting community-based organizations to improve neighborhood safety, and optimizing the built environment with design techniques for buildings, streets, and parks to minimize crime occurrence. The 2015 plan also stated a goal for safe, accessible, and well-maintained parks, open spaces, and community facilities for First Hill. Finally, in the Pike/Pine Urban Village, urban design policies included enhancing open spaces with the construction of pocket parks, community gardens, and children’s play spaces (City of Seattle, n.d.-b).



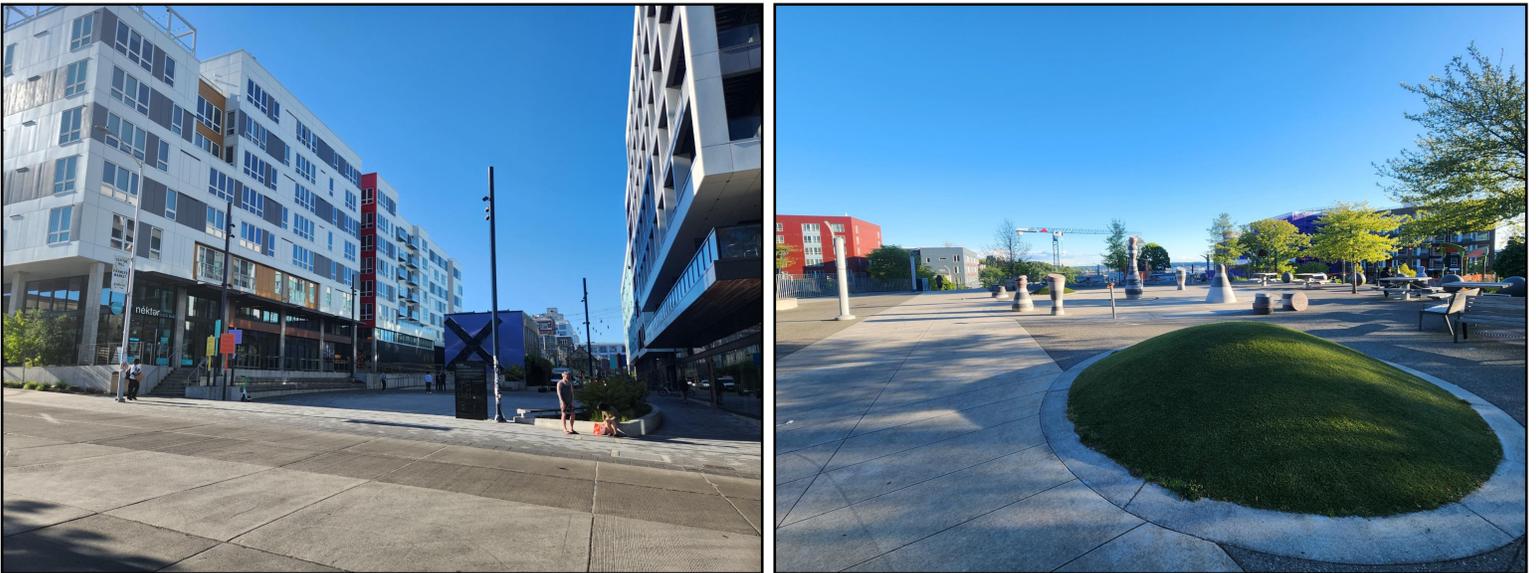
View of vegetated public spaces in the Capitol Hill area.  
*Photo credit: Patricia Au*

# CHAPTER 3: Sociocultural and Community Services

## Public Spaces and Public Safety

### Baseline Conditions

Based on the May 2, 2024 visit to the First Hill / Capitol Hill neighborhoods, the following observations were noted. Cal Anderson Park appeared active with residents, relatively free of litter, and had a multitude of streetlights present. Public restrooms were reportedly under construction at the time of the visit. The area around the Capitol Hill light rail station appeared to be active with wide open spaces and art installations. This area is used for the Capitol Hill Farmers Market. A lack of activated spaces was observed along the perimeter of Cal Anderson Park, notably along Nagle Place. The Oddfellows Building, a historical building that offers more affordable spaces for community activities, was observed southwest of Cal Anderson Park. Moving toward the retail district of south Capitol Hill and First Hill, visible litter along sidewalks and streets increased and street lighting structures decreased. In addition, trees in the area decreased, mainly due to the historical commercial usage of certain districts. A number of street cafes were observed at restaurants in the retail district. In the area of the Swedish Hospital First Hill medical campus, a reduction of greenspaces, public spaces, and general accessibility was observed. The St. James Cathedral Kitchen, a non-profit organization with a community garden that serves meals to low-income and people experiencing homelessness, was observed near the medical campus. The recently redeveloped Yesler Terrace area included affordable housing and activated spaces such as a community center and public park with sensory equipment and a splash pad. Selected images of public spaces are provided below.



View of activated spaces in the vicinity of the Capitol Hill light rail station (left) and the Yesler Terrace redevelopment (right). *Photo credits: Joey Teresi.*

# CHAPTER 3: Sociocultural and Community Services

## Public Spaces and Public Safety

### Assessment

#### PUBLIC SPACES

The EcoDistrict’s *Public Life Counts! A Public Life Study on Capitol Hill* recorded observations on the counts, mobility, activities, postures, and ages of people in four distinct Capitol Hill public spaces in the fall and winter of 2019. One notable finding was that 58% of people recorded as staying in the same area were observed “living in public” (i.e., unhoused) (EcoDistrict, 2019). This report provides insight on improving public spaces such as Cal Anderson Park, Olive Way, and John Street to optimize their use (EcoDistrict, 2019). Examples included replacing visual barriers with a permeable plaza at the north entrance of Cal Anderson Park, installing a tabled slow street at Nagles Place at the south end of Cal Anderson Park, and adding benches with lean bars to improve functionality at Olive Way and John Street. In addition, the University of Washington College of Built Environments Green Futures Research + Design Lab has generated reports on public spaces and public life for Capitol Hill (University of Washington, n.d.).

Timely and effective maintenance of streets and sidewalks is important to preserve the environmental and social benefits of public spaces. Utilizing the City of Seattle Department of Transportation’s [Pothole Repair Status Map](#) (Seattle Department of Transportation, n.d-b) and [Sidewalks \(Active\) Map](#) (City of Seattle, n.d.-e) online interactive databases, the location and status of damaged infrastructure can be quickly assessed. The status of pending or completed potholes and the condition of sidewalks marked “poor” or “very poor” can be useful indicators for hyperlocal public spaces assessments. Targeting priority areas that require city upkeep will enhance their accessibility and safety to the public. Similarly, the City of Seattle’s [2021 Tree Canopy Cover Map](#) online interactive database (City of Seattle, n.d.-d) allows a rapid assessment of public spaces lacking tree cover, with implications for environmental health outcomes (see Chapter 2). Using this tool, an absence of trees was observed in the area of East Union Street and 10th Avenue in Capitol Hill. Additional foliage would enhance public spaces dominated by impervious surfaces.

Between 2019 and 2021, a collaborative project between the Seattle Bird Conservation Partnership and local residents called Capitol Hill Connections was developed to restrict the use of pesticides at Cal Anderson Park, engage the community in park stewardship, and enhance bird and pollinator habitat along 11th Avenue East (Birds Connect Seattle, n.d.).

Additionally, leveraging community-business or community-nonprofit partnerships to reach shared goals of improving the neighborhood is essential. In addition, capital facilities such as the Capitol Hill Public Library are currently facing staffing shortages and budget issues (Kroman, 2024). These facilities provide opportunities for learning, applying for jobs, talking to neighbors, sheltering from inclement weather, and other critical social services. Disruptions to library facility services can adversely impact the health and well-being of residents. Raising awareness of potential library closures to the public and working with Seattle Public Libraries to understand how these residents use these services is essential for future community planning.

# CHAPTER 3: Sociocultural and Community Services

## Public Spaces and Public Safety

### Assessment

#### PUBLIC SAFETY

In 2023, property crimes recorded for Capitol Hill (2,121) and First Hill (1,224) were much higher than violent crimes recorded for Capitol Hill (381) and First Hill (234) (SPD, n.d.). Moreover, according to the SPD 2022 year-end Crime Report, Capitol Hill had one of the highest neighborhood concentrations of motor vehicle theft (SPD, 2023). Based on the SPD Crime Dashboard, motor vehicle theft crimes in Capitol Hill increased from 314 in 2022 to 448 in 2023 (SPD, n.d.). Car theft and other property crimes decrease perceptions of safe public spaces and disallow residents from the social and outdoor benefits of these areas. Additionally, SPD generated a report in 2022 on CPTED policies in Seattle and offered physical design recommendations to reduce crime for businesses at the intersection of 12th Avenue South and South Jackson (the Little Saigon Neighborhood). Recommendations included increasing sightlines by retrofitting windows with more transparent materials, improving signage for vehicle and pedestrian traffic around stores, and using security (convex) mirrors to eliminate blind corners (SPD, 2022).

The 2023 Capitol Hill EcoDistrict report included interviews with residents regarding their perceptions of public safety in the area. Based on vox populi interviews, the report noted that the public is more concerned with community stewardship, connectedness, and public investments rather than crime and policing (Capitol Hill EcoDistrict., 2023). Examples of neighborhood improvements included activation and mobility of public spaces, intergenerational activities in public spaces for diverse households, improved wayfinding and equitable signage, cleaner streets, increased lighting at night, enhanced greenspace and shading, additional seating, accessible and well-maintained restroom facilities, enforcement of pet leash laws, car-free zones, and more community art projects (Capitol Hill EcoDistrict, 2023).

In addition, the 2023 EcoDistrict report stated that income inequality is prevalent in the Capitol Hill neighborhood and is exacerbated by race, with 2020 median household incomes reported as \$131,728 in northern census blocks and \$68,157 in southern census blocks (Capitol Hill EcoDistrict, 2023). This data was corroborated by the 2022 American Community Survey, with median household income found to be \$92,654 (First Hill), \$91,031 (Capitol Hill as a whole), and \$161,926 (North Capitol Hill) (City of Seattle, n.d.-c). This data suggests wide income disparities across these Urban Villages. In addition, more than 16% of Capitol Hill residents lived below the poverty level in 2018 (Capitol Hill EcoDistrict, 2023). These conditions will result in more residents experiencing desperation and a greater potential for crimes to occur. Consequently, a major deterrent for property crime in the Capitol Hill and First Hill neighborhoods is the equitable distribution of resources. This would include providing financial assistance for social services that help those experiencing substance abuse problems, mental health disorders, food insecurity, housing precarity, and homelessness.

# CHAPTER 3: Sociocultural and Community Services

## Public Spaces and Public Safety

### Recommendations

1. Work with Seattle Dept of Transportation and Seattle Public Utilities to install temporary light towers throughout the Urban Center to reduce property crimes with a focus on installation during the darker winter months. Prioritize areas by working with Seattle Police Department (SPD) to identify low lighting or high crime areas, or by administering a community survey to pinpoint areas of concern. Use energy-efficient or solar-powered lighting systems to reduce costs. Evaluate the effectiveness of this action by assessing trends in crime rates using the SPD Crime Dashboard for treatment and control areas. Collaborate with local naturalist groups to address increased light pollution of towers and potential impacts on wildlife, especially near greenspaces.
2. OPCD should partner with local groups like the [Broadway Capitol Hill Business Improvement Association \(BIA\)](#) to maintain sanitation of public spaces via cleanup events on a seasonal or monthly basis. Send an interest survey to businesses willing to participate in a community program to improve litter control, weeding, etc. Create a City initiative with voluntary participation from businesses or nonprofits to partner with the public to maintain their city blocks. Train volunteers on public safety considerations and who to report problems to. Collaborate with Public Health - Seattle and King County to train volunteers on safety measures when picking up hazardous materials, prior to cleanup events. Use pre and post surveys to gauge the success of these collaborations and improved neighborhood aesthetics.
3. The City of Seattle OPCD should follow the specific recommendations outlined in the EcoDistrict's *Public Life Counts! A Public Life Study on Capitol Hill* study for Cal Anderson Park, Olive Way, and John Street to optimize their public space uses. Funding may be provided by the city budget for enhancing or maintaining public spaces. The timeframe for completion would be within a year.
4. For future construction or renovation projects in the First Hill / Capitol Hill neighborhoods, OPCD should promote mixed developments that will ultimately improve social diversity at public spaces such as parks. Provide diverse amenities (e.g., playgrounds, basketball courts, chess boards) so all ages and racial groups feel welcome in parks. This will increase the pedestrian traffic of park users at different times of the day, ultimately increasing safety and accountability. This will also prevent parks from becoming less publicly used and more criminally used. In addition, amenities must be provided in a way that avoids neighborhood gentrification and resident displacement.
5. Plant more trees at public spaces around the Swedish Hospital First Hill Campus to decrease its isolated "island" effect and to foster health benefits for hospital patients and the public. Incorporate tree plantings with current bus line improvements. This will also improve health outcomes for the high-density population that commutes to the medical center in this neighborhood.

# CHAPTER 3: Sociocultural and Community Services

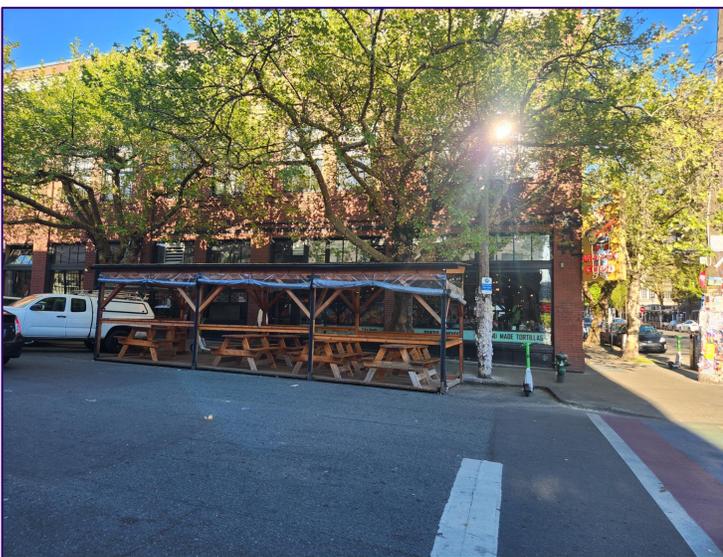
## Public Spaces and Public Safety

### Recommendations

6. Convert existing unused vacant lots into community gardens, pocket parks, and streateries. The City of Seattle should acquire unused commercial areas for redevelopment into vibrant, equitable public spaces, as feasible.
7. Support capital facilities such as the Capitol Hill Public Library through campaigns to spread awareness of their community and social services as well as job opportunities. Provide timely support for local libraries experiencing staffing, budget, and closure issues.
8. Continue providing support for EcoDistrict Revival Market Street events to promote local BIPOC and LGBTQ+ businesses, artists, and community organizations without traditional storefront locations. Conduct outreach to local businesses to provide support similar to the Broadway Capitol Hill BIA recommendation. To reduce costs, integrate with regular city outreach efforts to gauge public opinions and perceptions.

### Summary

Fostering clean and engaging public spaces is paramount to the functionality and well being of a community. Similarly, public safety depends on the perceived safety of public spaces as well as crime occurrences. Incorporating health equity into the Subarea Plan means fostering partnerships with local businesses and communities to better understand and preserve shared community spaces as well as enhancing feelings of safety and security for all residents.



View of a streatery (left) and the Oddfellows Building, a historical building that offers more affordable spaces for community activities, in Capitol Hill (right). *Photo credits: Joey Teresi.*

# CHAPTER 3: Sociocultural and Community Services

## Social Cohesion

### Literature Review

Social cohesion is the amount of trust and solidarity found in a group of people and is associated with changes in physical and mental health (Miller et al., 2020). Individuals living in socially cohesive neighborhoods are less likely to suffer from depression, to smoke, and to drink. Conversely, individuals living in less socially cohesive neighborhoods were found to suffer from increased rates of depression and were more likely to smoke and not walk to exercise (Echeverría et al., 2008).

Heritage buildings and historic places may play a role in building social cohesion. At a community level, preserving these places and buildings promotes social interaction and shared experiences (Abdelmoula & Abdelmoula, 2023). Similarly, the arts, particularly in the form of music, have benefits on individual health and community cohesion. At an individual level, the arts reduce loneliness and social isolation, particularly amongst people living in rural or disadvantaged areas (Fancourt & Finn, 2019). A study showed that children living in disadvantaged communities benefit from music by lowering instances of anxiety, depression, emotional alienation, truancy, and aggression, while also increasing school attendance, self-esteem, confidence, and healthy nutrition (Fancourt & Finn, 2019). At the community level, the arts encourage social cohesion by fostering prosocial behavior (e.g. volunteering and charitable giving) and a shared community identity and sense of success (Fancourt & Finn, 2019). The arts additionally serve as a bridge between different social groups by helping a community build social and community capital (Fancourt & Finn, 2019). This was demonstrated in studies of inner-city housing projects, where the inclusion of arts resulted in increased social

cohesion and decreased levels of violent crime (Fancourt & Finn, 2019). Social cohesion and increased access to healthy foods have a synergistic relationship. Increased access to healthy foods was associated with higher perceived neighborhood safety and social cohesion, and increased social cohesion may inhibit food security (DiFiore, 2022). Lack of access to healthy foods is associated with a lower quality diet and an increased risk of diet-related diseases, such as cardiovascular disease, diabetes, and certain types of cancer (Odoms-Young et al., 2023). Consequently, individuals of lower socioeconomic status and ethnic minority, who are more likely to live in under-resourced food environments, experience higher rates of food insecurity and are more likely to have diet-related chronic diseases (Odoms-Young et al., 2023).



View of the Waterworks Fountain at Cal Anderson Park, a popular public meeting space.  
*Photo credit: Patricia Au.*

# CHAPTER 3: Sociocultural and Community Services

## Social Cohesion

### Baseline Conditions

The 2015 Capitol Hill Comprehensive Plan established the goal of having Capitol Hill be a diverse and densely populated neighborhood with distinct residential areas, active business districts, accessible transportation services, and strong institutions. Its population were to have access to amenities such as quality parks, open spaces, and the arts. This was to be accomplished through supporting and integrating arts and cultural activities into everyday life and through supporting neighborhood cultural institutions (i.e. the Cornish College of the Arts, the Susan Henry Library, and Seattle Central Community College). The 2015 First Hill Comprehensive Plan sought to shape First Hill into a neighborhood with a culturally and economically diverse residential population and a major source of employment. The neighborhood was to integrate First Hill's residential, commercial, and institutional uses so that it is strongly connected to the surrounding neighborhoods. To integrate these uses, Madison Street was to be developed into a mixed-use urban center, and existing and future First Hill residents were to have access to newly created community facilities. Besides the development of a food price index, there are no further mentions of healthy food access in the comprehensive plans.

### Assessment

Capitol Hill has historically been home to Seattle's LGBTQ community (Capitol Hill Arts District, n.d.). The neighborhood contains rainbow-painted crosswalks and banners and LGBTQ-owned and LGBTQ-friendly businesses (Capitol Hill Arts District, n.d.).



Rainbow sidewalks and chalk messages supporting abortion access and LGBTQ rights. *Photo credit: Patricia Au.*

# CHAPTER 3: Sociocultural and Community Services

## Social Cohesion

The May 2, 2024 site visit revealed messages written with chalk on the sidewalk, supporting abortion access and LGBTQ rights. Capitol Hill currently serves as a gathering and social area through its vibrant nightlife and Cal Anderson Park, a public park where activists have gathered. However, the neighborhood also has an unfortunate history of redlining, racial covenants, and the systematic exclusion of the BIPOC communities (Capitol Hill EcoDistrict et al., 2023). Capitol Hill additionally contains a number of historic buildings, many of which have been designed to have small, modern storefronts.

As Seattle's first art district in 2014, Capitol Hill contains Washington State's densest arts neighborhood (City of Seattle Office of Arts & Culture, n.d.). Combined with its culture of being home to the LGBTQ community and activist space, many murals can be found on the exteriors of buildings and touch on various serious topics, such as Black Lives Matter and abortion (Ansari, 2023). Murals with less serious subjects, like coffee, and murals reflecting the art style of BIPOC communities, are also present (Ansari, 2023).

The neighborhood is home to more than 40 arts and cultural organizations, but rising rents and gentrification threaten to displace many of these organizations (City of Seattle Office of Arts & Culture, n.d.). Consequently, there is a growing perception that the neighborhood is losing its cultural identity (City of Seattle Office of Arts & Culture, n.d.). Preserving the community's culture through historic and cultural preservation and creating community connectivity can help maintain the character of the neighborhood. Of the surveyed Capitol Hill residents in the EcoDistrict Community Engagement Report, 57% reported feeling a sense of belonging in personal spaces. Stronger senses of belonging in public spaces were reported when the space is free to access (79%), offers opportunities to connect with nature (70%), is accessible for all demographics (70%), contains art reflecting the neighborhood's identity (60%), and offers opportunities for connection (59%). A majority of respondents (51%) reported wanting to see increased art and music, such as murals and buskers, in public spaces. A focus group revealed that there was a desire for more art around Cal Anderson Park and increased park activation. The May 2, 2024 site visit to Cal Anderson Park showed many people utilizing the park to bask in the sun or to socialize with their friends. Besides the fountain, there was little art visible from the park and no buskers (people who perform music in public spaces for tips) during the site visit.



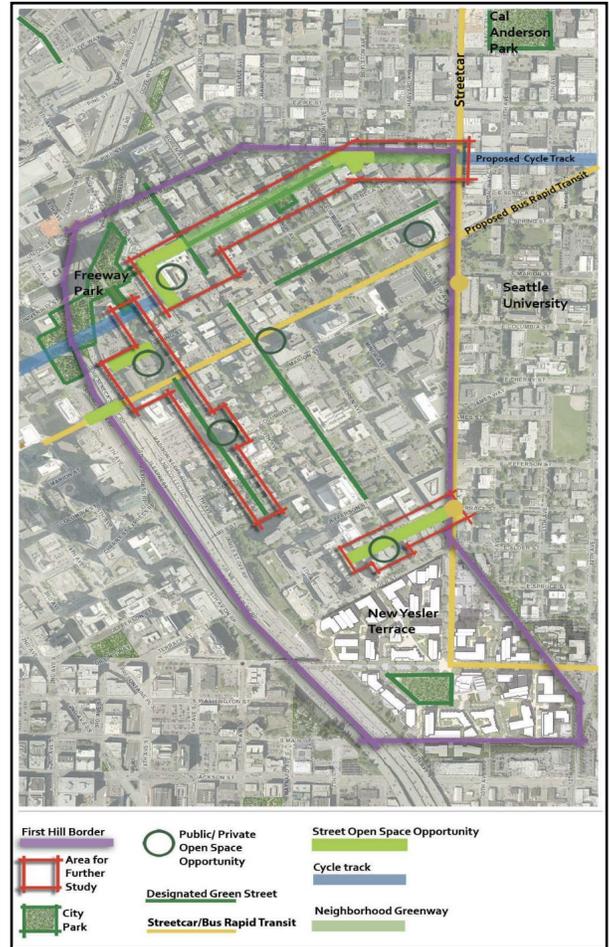
View of artwork on an electrical box in First Hill (left) and an art display of signage with social messaging in Capitol Hill (right). *Photo credits: Joey Teresi.*

# CHAPTER 3: Sociocultural and Community Services

## Social Cohesion

### Food Security

In First Hill, large organizations, such as Seattle University and medical campuses, hold a large footprint. Although the medical campuses are a beacon of health, the initial May 2, 2024 site visit revealed that the surrounding area offers many fast food options, few grocery stores, and few green spaces. This may reflect the transient nature and busy schedules of hospital staff and visitors. A 2018 survey of the neighborhood revealed that there was a desire for more open space in the neighborhood (City of Seattle Department of Neighborhoods, 2018). In 2017, the First Hill Public Realm Action Plan sought to work with the First Hill community to create more open spaces (OPCD, n.d.-c). However, the May 2, 2024 site visit revealed that not much green space has been added since then; the only green space encountered on this walkthrough was a P-patch, but this did not appear to be a gathering space to encourage community connectivity. Figure 22 provides a map of two existing parks within First Hill and opportunities for new parks from the First Hill Parks & Public Space Concept Diagram draft (OPCD, n.d.-c).



**Figure 22.** Two existing parks within First Hill and opportunities for new parks from the First Hill Parks & Public Space Concept Diagram draft (OPCD, n.d.-c).

Data collected from a 2018 survey of the Capitol Hill and First Hill neighborhood revealed that a majority of residents are white in both neighborhoods; 29.2% of Capitol Hill and 40.6% of residents identify as persons of color (City of Seattle Department of Neighborhoods, 2018; City of Seattle, 2018). This was higher than the citywide average of 33% in 2018. Compared to the citywide median household income of \$65,277, Capitol Hill's median household income was \$48,182 (City of Seattle, 2018). This is higher than First Hill's median household income of \$38,995 (City of Seattle Department of Neighborhoods, 2018).

Access to healthy food is an important health determinant, yet it was minimally considered in the initial plan. Although a number of grocery stores exist in Capitol Hill, there are few grocery stores in First Hill. Besides the Whole Foods on Broadway, no supermarkets or neighborhood stores were seen on the May 2, 2024 site visit. Included in the Community Engagement Report, EcoDistrict and the University of Washington College of Built Environments built a food price index and mapped the price ratios of grocery stores in the Capitol Hill and First Hill neighborhoods to the percentage of individuals receiving SNAP benefits. Despite having lower wages, individuals living in First Hill were found to experience higher grocery costs. The site visit to Yesler Terrace revealed that residents likely needed to traverse slopes or ride the streetcar to visit a grocery store.

# CHAPTER 3: Sociocultural and Community Services

## Social Cohesion

### Recommendations

1. Work with local farmers market associations to establish a regular farmers market within First Hill. For example, the [Pike Place Market Express Farmers Markets](#) improves food access to downtown residents and workers by bringing Pike Place Market vendors to smaller farmers markets in Seattle neighborhoods. Between June 7th and September 27th, 2024 a weekly farmers market will be held at 9th Avenue & University Street in First Hill. These hyperlocal markets can be leveraged to enhance food security in vulnerable neighborhoods. Areas with limited grocery options and numerous unhealthy options should be prioritized. This can serve as an additional community gathering space and can introduce opportunities for local musicians to play. To help ensure that residents have access to healthy and fresh foods, the farmers market organizers should work with local organizations to identify the neighborhood's demographics and tailor the chosen vendors to foods to be culturally appropriate and familiar to nearby residents.
2. Repurpose empty storefronts to feature art and hold community events. Remodel an unoccupied storefront to serve as a temporary, pop-up gathering space that holds events such as art displays, art markets, and other events. Although all artists are welcome to apply, neighborhood and BIPOC artists should be invited to display and sell their art. Similarly, neighborhood and BIPOC musicians should be invited to apply to play at community events. Seattle can work with Shunpike or use its storefronts program as an example.
3. Hold community events at Cal Anderson Park that serve as opportunities to talk and engage with others in the community. Events should be free, low-cost, or offered on a sliding scale. Local musicians can apply to play at the park to encourage further park use and activation. Given the residential area surrounding the park, musicians should not be disruptive.
4. Continue to fund arts organizations to prevent further displacement of arts and cultural groups.
5. Partner with organizations in First Hill like the First Hill Improvement Association to offer lower-cost retail ground-level space to businesses. Businesses should be prioritized based on their likelihood of attracting both residents and employees. Businesses serving healthy foods that value accessibility and affordability for their customers should be prioritized in storefronts with kitchen spaces.
6. Revitalize the First Hill Public Realm Action Plan to identify strategies and to increase the number of sidewalks, green streets, parks, and rest areas. This will create more opportunities for various types of recreation, where community members can interact with each other.

### Summary

The preservation of heritage buildings and historic places, arts, and healthy food access impact a neighborhood's social cohesion. Ensuring that all residents in Capitol Hill and First Hill have access to community spaces, art, and healthy food can help build social cohesion. This can be accomplished by utilizing existing spaces and creating new spaces for art to be displayed and for the community to gather.

# CHAPTER 3: Sociocultural and Community Services

## Healthcare Services

### Literature Review

The 2024/2025 King County Community Health Needs Assessment, conducted by King County Hospitals for a Healthier Community, identified barriers to health service access. These include limited availability of providers and appointments, long wait times, lack of childcare, lack of culturally competent providers, lack of translations for healthcare resources, service costs, and insurance plans (King County Hospitals for a Healthier Community, 2024).

An inadequate supply of primary care providers is associated with increased hospitalization rates and higher mortality due to fewer opportunities for detection, prevention, and management of health conditions (Schlak et al., 2024). The absence of childcare has been associated with missed healthcare appointments among adult women. Lack of childcare and other logistical barriers and time constraints disproportionately harm lower-income women (Jane et. al, 2024).

A study of the impact of hospital cultural competency found that minority patients scored hospitals with higher cultural competency higher in nurse communication, staff responsiveness, quiet room, and pain control (Weech-Maldonado et al., 2012). Among sexual minorities, cultural competence of primary care providers contributes to patient care-seeking decisions and treatment adherence (Schilder et al., 2001)

Among the 6.6 percent of uninsured adults in King County in 2022, Hispanic and American Indian/ Alaska Native adults had the highest rates, 19.3% and 19.1% respectively (King County Hospitals for a Healthier Community, 2024). Among uninsured patients who qualify for Medicaid, barriers such as mental health challenges, lower education levels, and lack of

previous experience with Medicaid can limit enrollment (Stuber & Bradley, 2005).

### Baseline Conditions

The First Hill / Capitol Hill Comprehensive Plan (2015) did not include plans for healthcare services. However, it does refer to “human service needs,” which includes healthcare.

### Assessment

Capitol Hill EcoDistrict’s 2023 Community Engagement Report identified six hospitals in the neighborhood, including Country Doctor Community Health Clinic, Swedish Medical Center, and Kaiser Permanente. They provide emergency, in-patient, and out-patient care. Some hospitals also have a clinic. The hospitals are primarily located in the First Hill area, and only Country Doctor offers free services and uninsured payment options. Some hospitals offer childcare for staff, but not for patients. The neighborhood also has seven women’s health centers, which include sexual and reproductive health services. There is one LGBTQ+-focused primary care clinic in First Hill / Capitol Hill. The neighborhood has ten mental health facilities and no identified free services. There are four culturally-specific services in the neighborhood. These connect individuals to healthcare guidance. (Capitol Hill EcoDistrict, 2023).

In February 2024, the Washington State Department of Social and Health Services considered permanently closing the Capitol Hill Community Services Office as an apparent cost-saving measure. The neighborhood center provides resources for those seeking programs such as Basic Food / Supplemental Nutrition Assistance Program, cash assistance, and Apple Health

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## Healthcare Services

(Medicaid) (jseattle, 2024). Alternative community services offices from Capitol Hill include a location in Belltown (approximately 20 minutes away using public transportation) and in Rainier (approximately 40 minutes away using public transportation).

The 2024/2025 King County Community Health Needs Assessment offered community-identified priorities for healthcare access and delivery, identified barriers to health service access. While the data is not exclusively from First Hill / Capitol Hill, the findings can be considered for the neighborhood. Key barriers to mental and behavioral health services access were limited availability of providers and appointments, lack of childcare, long wait times and time constraints, lack of culturally competent providers, lack of translations for healthcare resources, service costs, transportation access, and insurance plans. These barriers were particularly challenging for older adults and immigrants (King County Hospitals for a Healthier Community, 2024).

The Assessment reported mood disorders, psychotic disorders, pregnancy and birth complications as leading causes of death among men aged one to 17, men aged 18 to 24, and women respectively. The Assessment also identified lowest income adults and lesbian, gay, and bisexual adults as more likely to report frequent mental distress than highest income and heterosexual adults (King County Hospitals for a Healthier Community, 2024).

### Recommendations

1. Expand no-fee mental and behavioral health services, especially for vulnerable groups such as LGBTQIA+, low-income, and youth residents.

2. Increase availability of mental and behavioral health providers, especially culturally diverse, queer, and multilingual providers. Consider improving education accessibility, expanding telehealth services, ensuring payment parity, and reducing administrative burdens.

3. The City of Seattle can expand their Child Care Assistance Program (CCAP) to include offering no-fee childcare to patients and staff at healthcare facilities.

4. Build and maintain relationships between the government, healthcare facilities, and community-based organizations. The King County Community Health Needs Assessment recommends that these stakeholders “identify opportunities that will support and foster healthy community conditions” (King County Hospitals for a Healthier Community, 2024).

5. Include hospitals and clinics in efforts to create a pedestrian-oriented neighborhood that balances public transit with the parking needs of businesses, residents, and students (CH-G6) (OPCD, 2020). Include patient parking and transportation services, especially for older adults and low-income residents. See additional information from the mobility discussion in Chapter 2.

6. Increase transportation options to Community Services Offices for residents. Offer rapid transportation between First Hill / Capitol Hill and existing Community Services Offices and/or integrate Community Services Office services in healthcare facilities, schools, libraries, or other community resource spaces. Identify and reach vulnerable populations (e.g., older adults and immigrants who cannot easily access online/ telephone services).

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## Healthcare Services

7. Expand support for individuals experiencing houselessness in healthcare settings. The King County Community Health Needs Assessment recommends that healthcare providers screen patients for housing instability, and provide social workers and care navigators to connect them to resources (King County Hospitals for a Healthier Community, 2024).

# Conclusion

# Conclusion

This HIA was completed to evaluate the potential health outcomes and equity impacts of the First Hill / Capitol Hill Subarea Plan. Literature reviews and baseline assessments were conducted to understand the links between the built environment and health in these neighborhoods. Priority recommendations were made for identified topic areas (housing, jobs and the economy, mobility, climate and the environment, and sociocultural and community services) to promote positive health outcomes and mitigate adverse health outcomes of proposed city policies. Incorporation of this HIA into future decision making offers an opportunity to implement a collaborative Health in All Policies approach to integrate health considerations into policymaking (CDC, 2016).

This report was created for partners at the Seattle Office of Planning and Community Development. It is our suggestion that this report be shared with additional stakeholders and community members as future decisions are determined for the City of Seattle's draft Comprehensive Plan. There is an excellent opportunity to help shape the future of development in the Capitol Hill and First Hill neighborhoods during the drafting and review process for the long-range Comprehensive Plan. Continuous planning, collaboration, communication, and community involvement in the development of this plan will assist in creating a healthy, lively, and equitable subarea. This HIA has not selected one proposal as the best option for moving forward, but provides recommendations for the various proposals as each has the potential to impact health outcomes for First Hill, Capitol Hill, and the greater Seattle area.

## Limitations:

Several limitations were identified for this class-based HIA project. While the graduate students themselves represent a diverse range of backgrounds and experiences extending beyond urban planning and public health disciplines, this is the first experience of conducting an HIA for all the students in the class. Additionally, the time constraint of less than 10 weeks to produce this document did not allow for collection of data, in-depth data analysis, key informant interviews with stakeholders, or community assessments. However, a number of resources provided by OPCD were reviewed that offered baseline data and interviews with local residents. Furthermore, the study area of this HIA encompasses a large geographic area with diverse populations, histories, and land uses. This complexity led to a more generalized assessment of the First Hill / Capitol Hill Urban Center than a targeted investigation. Moreover, data privacy laws such as the Health Insurance Portability and Accountability Act (HIPAA) disallow the acquisition of granular data, such as resident disability information. In addition, future monitoring and evaluation steps for this HIA are left to the responsibility of OPCD as it is not feasible for the report authors to complete this important component of the assessment process. Partnering with other City of Seattle departments to attain city indicator data may be needed.

# Conclusion

## Monitoring and Evaluation:

The final steps of an HIA are monitoring and evaluation. The purpose of monitoring is to track the impacts of the HIA on the decision-making process, implementation of the final decision, and health outcomes from that decision. The purpose of evaluation is to assess the effectiveness of the HIA process itself, interpret how well findings and recommendations were communicated to decision makers, and determine the impacts of HIA recommendations on future planning decisions. Where applicable, some priority recommendations outlined ways to evaluate the success of proposed decisions. However, it is ultimately up to OPCD to conduct monitoring and evaluation of future activities in the First Hill / Capitol Hill Urban Center. The report authors recommend that OPCD periodically review the recommendations of this HIA as completion of the One Seattle Comprehensive Plan and Subarea Plan progress.



Photo of the UW HIA Team and project collaborators during the May 2, 2024 site visit. *Photo credit: Pilar Giménez.*

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