

## Environment

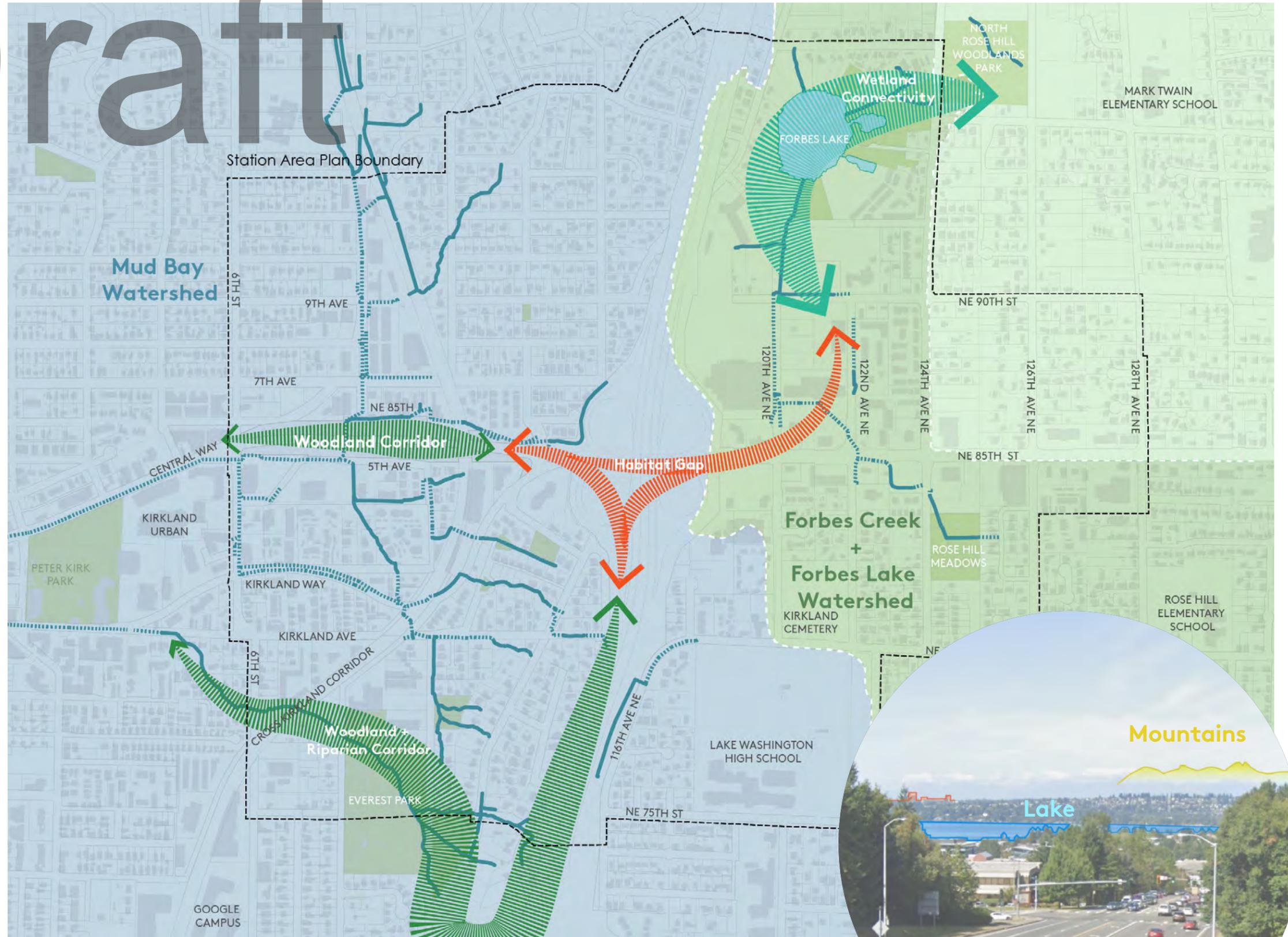
Kirkland's identity is strongly tied to its natural environment. Within the study area, a number of important elements come into focus.

**Watersheds:** The study area straddles two primary watersheds roughly divided along I-405: Moss Bay and Forbes Creek. Moss Bay consists of short stretches of open channel separated from Lake Washington by long piped sections. The Forbes Creek watershed includes Forbes Lake and associated wetlands and creeks. The Forbes Creek Watershed provides important aquatic species habitat, and is vulnerable to stream bank erosion and increased sediment loads.

**Topography:** Like other parts of the Puget Sound Lowlands, Kirkland's topography was shaped during the ice age with elements such as kettle ponds and moraines. Within the study area, the slope generally rises West to East away from Lake Washington. This consistent slope creates excellent views at the I-405 interchange. The bermed and elevated portion of 85th St between 6th St and 114th Ave is a significant man-made topographic feature, which influences several aspects of the study area, from land use and stormwater to transportation access.

**Vegetation:** Similar to other parts of Kirkland, the study area includes dense areas of vegetation interspersed through existing neighborhoods. Three of these are of particular significance for the study area: A woodland corridor at 85th St between 6th St and 114th Ave, a riparian corridor that includes Everest Park, and the wetlands and associated lands surrounding Forbes Lake.

# Draft



Existing Watersheds



# Draft

## Public Services & Amenities

### Stormwater

The Storm and Surface Water Division of Kirkland Public Works is responsible for managing the City of Kirkland's stormwater system. Within the NE 85th SAP study area, a large portion of the storm-water conveyance is the responsibility of WSDOT along I-405. WSDOT has its own stormwater manual, the Highway Runoff Manual (HRM).

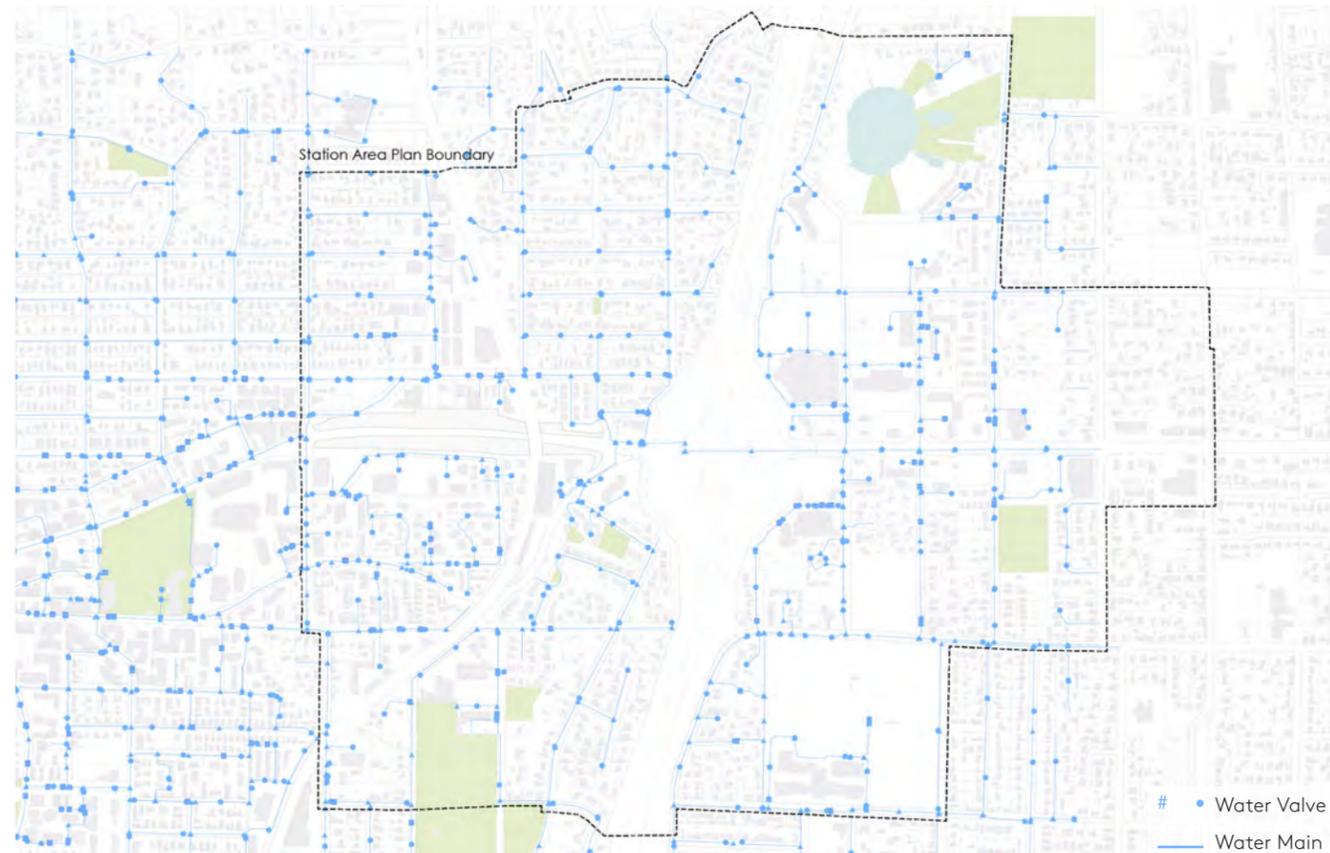
Known System Deficiencies in the Forbes Creek basin are related to water quality and fish habitat. Concerns in the basin include sedimentation, flooding, and fish passage barriers and a regional de-tention facility has been proposed for the basin. Peter Kirk Park is used as a detention storage area for stormwater during peak events and is mapped as a floodplain.

### Water

Potable water is purchased by the City of Kirkland from Seattle Public Utilities (SPU) through the Cascade Water Alliance (Cascade). Cascade is an association of five cities and two water and sewer districts in Puget Sound that have partnered to supply water to over 380,000 residences. The Kirkland Water Division operates and maintains the City's water infrastructure. In 2013, average water usage for the entire Kirkland system was 5.3 million gallons per day.

Some areas of the City's system are over 40 years old, and water mains are expected to have a life expectancy of only 50 years. Portions of the system, particularly in the older parts of the city, may need to be replaced within the next ten years.

### Existing Water Infrastructure



The WSDOT Interchange Design Plans identify an existing water main that runs along NE 85th St across I-405. This main may be influenced by the project, but WSDOT Interchange Design Plans do not yet include the replacement main.

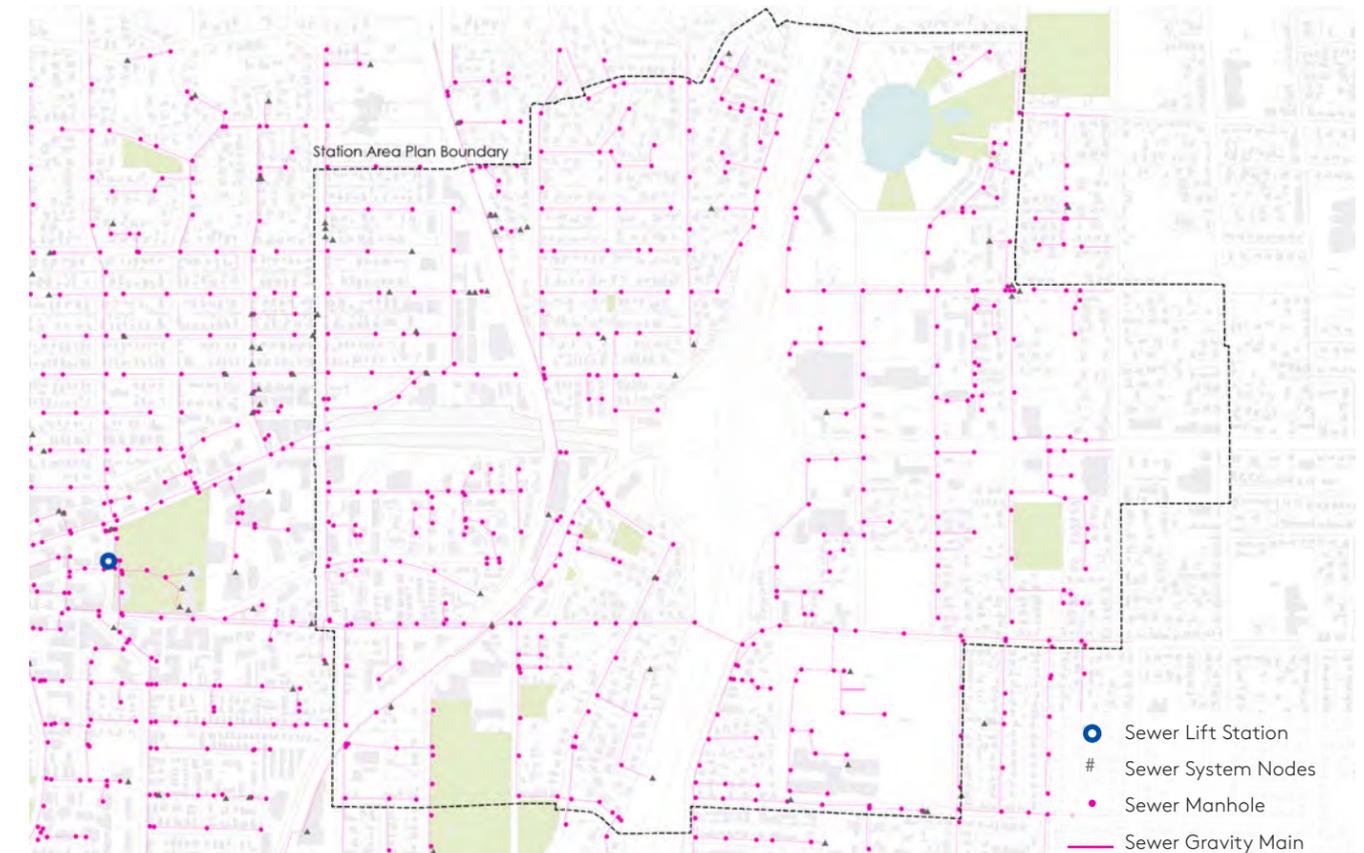
### Wastewater

The Wastewater Division of the City of Kirkland Department of Public Works maintains the City's sewer system, which serves the southern portion of the city. The portion of the city North of NE 116th St of the city is served by Northshore Utility District (Northshore) (RH2 2018). The City's sewer system is made up of 13 major drainage basins, six pump stations, approximately 122 linear miles of gravity sewer piping, and approximately

6,230 LF of force main. The wastewater system conveys water to King County's Eastside Interceptor and to the South Wastewater Treatment Plant (South WWTP) located in Renton, WA.

The majority of the proposed sanitary pipeline replacement projects listed in the City's 2018 General Sewer Plan (RH2 2018) are located within the Kirkland basin (the basin to the west of the I-405 Interchange). The project list is based on the City's assessment of existing deficiencies, safety concerns, maintenance requirements, and capacity requirements.

### Existing Waste Water Infrastructure



- Sewer Lift Station
- # Sewer System Nodes
- Sewer Manhole
- Sewer Gravity Main

# 4.0 Draft

## Community Benefits Strategies —

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## Planning for Community Benefits

To achieve the project objectives of promoting opportunity and inclusion, as well as sustaining quality of life for existing and new neighbors, a Community Benefits policy framework and strategy have been developed. Priority community benefits were chosen for this project based on community feedback, City Council and Planning Commission direction, and initial findings from the DSEIS and 2020 Opportunities and Challenges Report. They include schools, parks and public realm, affordable housing, sustainability, and mobility.

**Public Projects** will support infrastructure and services including transportation and mobility, parks and public realm to sustain quality of life for the public. This plan identifies a range of public project opportunities, which are coordinated through the City's capital planning process and other city-wide planning efforts such as the Parks, Recreation, and Open Space Master Plan and the Transportation Master Plan. These projects may include improvements or enhancements to existing public assets and services, or the creation of new public infrastructure.

### Private Developments

Through baseline requirements and the form based code, community benefits can be realized through private development. Beyond these baseline benefits, there is also potential for additional public benefits or amenities that can be incentivized. This can occur through tools like incentive zoning programs that allow additional development in exchange for the developer providing community benefits. Under a typical incentive zoning program, new zoning establishes a base development allowance in each zone. In exchange for this additional development, the developer provides public benefits through fee-in-lieu or direct provision of the amenity.

**Partnership Opportunities** can advance priority community benefits through program alignment or potential co-benefits. P3's, or Public-Private Partnerships, are examples of collaboration across sectors or organizations to achieve aligned goals. There is potential to advance some of the plan initiatives, community benefits, and long-term vision through such partnerships, especially around the topics of schools, education, and childcare; affordable housing and workforce development; as well as sustainability, climate action, and health and well-being initiatives.

## How can the public receive benefits of growth?

Along with planned growth comes the opportunity for public, private, and other investments and improvements in the Station Area. Rezoning and updated policies in the Station Area will change the amount and type of development that is allowed, and what baseline requirements will be expected. This new development capacity will be supported by public investments and partnerships for infrastructure and services to sustain quality of life for the community. As upzoning may increase the potential value of private land, a portion of this potential value can also be leveraged for public benefit.

Overall, the Station Area itself comes with a tremendous opportunity of intrinsic public benefits which include but not limited to enhanced transportation choices, improved and more community gathering places and environmentally sound growth patterns that support the overall vision to the Station Area.

### Community Benefits Icons

Throughout the document the following five community benefit icons are called out. Each denotes the topic in which the SAP provides benefits to the broader population:



Affordable Housing



Mobility: Walking and Rolling



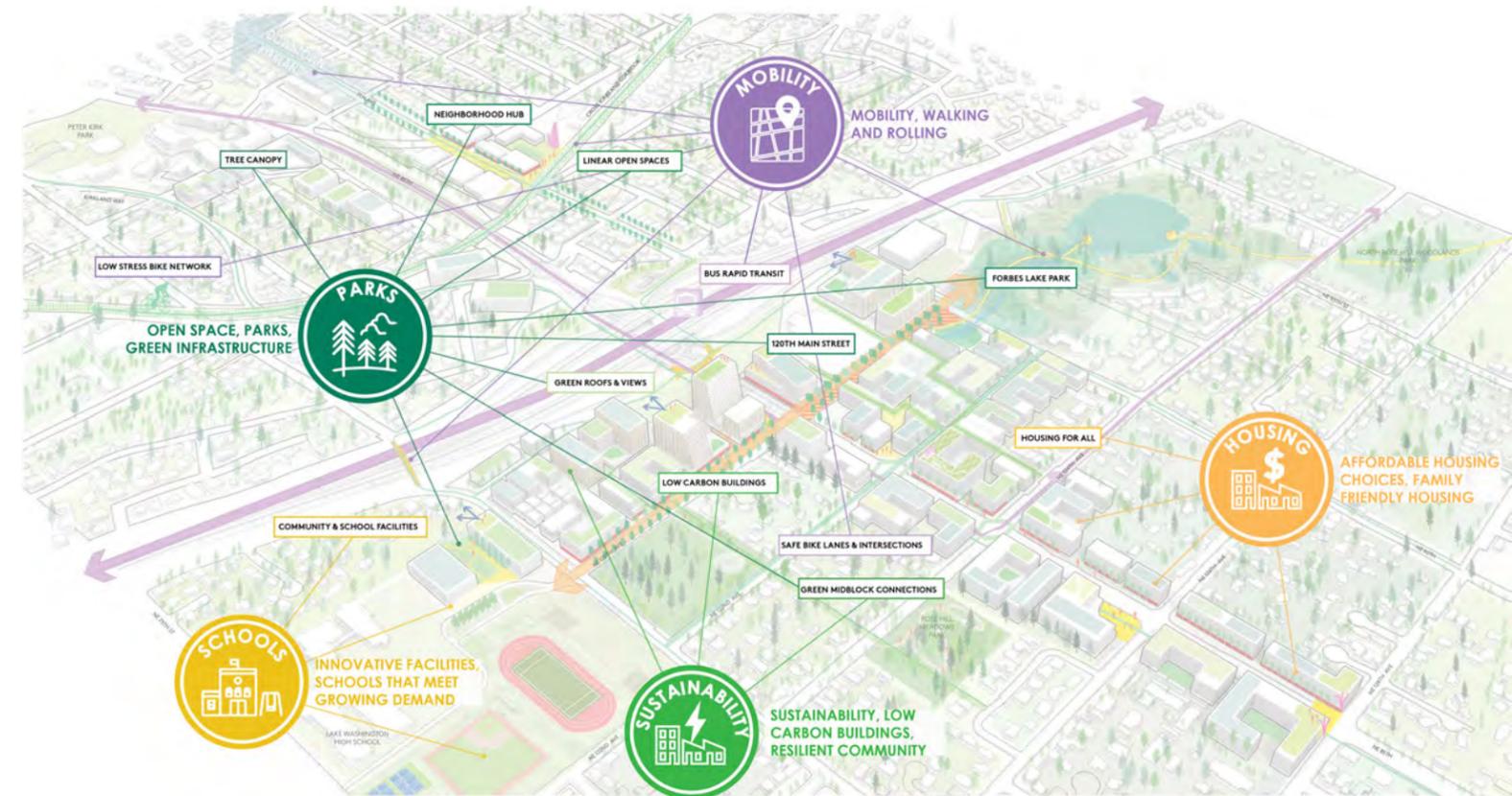
Open Space, Parks and Green Infrastructure



Sustainability, Climate Action, and Resilience



Schools





## Affordable Housing

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With the Preferred Plan Direction, City Council adopted a framework to guide development of strategies to achieve community benefits across the five key issue areas: Affordable Housing; Mobility; Open Space / Parks; Sustainability; and Schools.

The Preferred Plan Direction adopted by Council identified a vision for plentiful affordable housing in the Station Area, and maximizing affordable housing options in the Station Area was a priority in all phases of the planning process. Future redevelopment in the Station Area will be subject to the City's existing inclusionary zoning requirement that at least 10% of new multi-family units are affordable – which could result in over 600 estimated new affordable units (of the studied capacity for up to 6,243 additional housing units). Additional strategies to promote and incentive affordable housing production in the area were identified in the FSEIS, and included:

- Leverage regional partnerships (e.g., A Regional Coalition for Housing (ARCH)) to add affordable housing opportunities in the Station Area,
- Create density bonuses that prioritize affordable housing,
- Establish minimum requirements for family-size units,
- Require development to provide a minimum number of activity units (i.e. housing units or jobs), and
- Commercial linkage fees.

City staff has coordinated with ARCH to discuss the mitigation options that the City could consider to maximize affordable housing opportunities in the Station Area. ARCH will be a key partner in assisting the City with investing resources to produce affordable housing. To the extent that the City receives cash

payments toward affordable housing rather than units being built directly by the developer, it will be important that those funds be directed to affordable housing projects located in or near the Station Area to assist with making progress toward a better jobs/housing balance.

In the economic analysis for the incentive zoning program, the project team has evaluated options for base and incentive housing requirements, including: providing more than 10% (current inclusionary zoning requirement) of units as affordable; providing units at deeper levels of affordability; and, providing more family-size (2+ bedroom) units. The project team believes that commercial linkage fees could be a valuable tool and should be evaluated in the future. To support evaluation of commercial linkage fees as a tool for the future, the City should continue to work with ARCH to identify legislative changes that might better address such fees being mandatory and applying on a jurisdiction-wide basis.

More than 30% of people who work within the NE 85th Station Area make a salary below the living wage. Additionally, 16% of employees within this area make below the federal poverty guidelines this imbalance of equity regarding the types of jobs available in the area should be addressed. Opportunities to support linkage fee programs and workforce development in order to encourage more jobs for residents in Kirkland will be important, especially jobs that offer higher income. Workforce training programs may be possible along the 120th corridor connecting high tech jobs and the schools. The plan also seeks to maximize affordable housing by providing additional development capacity at a site owned by the King County Housing Authority, which could be redeveloped in the future to provide additional affordable units.



## Mobility: Walking and Rolling

This Station Area Plan creates a rich network of mobility options that not only connect transit users to and from the future bus rapid transit station but allow movement throughout the station area to connect downtown Kirkland, Redmond, and beyond. Improved sidewalks and dedicated bikeways ensure that walking and biking in the station area is safe and pleasant. Capacity is added to key intersections on major arterials through strategic widening and signal operation changes to avoid gridlock. These improvements are linked to overall urban design and mobility goals for each corridor. For instance, on NE 85th St a wide landscaped furnishing zone, protected bikeway at the sidewalk level, and wide generous sidewalks are appropriate infrastructure investments to create a sense of safety and a pleasant environment for walking and biking along a major thoroughfare that connects vehicle and transit traffic to the interstate. On smaller collector streets such as the 7thAve/NE 87th St corridor, sidewalks with sufficient clear pedestrian zones, buffered bikeways, and narrower vehicle lanes proportionally relates the street to a more intimate, residential character.

Green midblock connections help break down large blocks into more walkable distances. Finally, increased transit service with dedicated lanes through the interchange and flexible parking policies balance the transportation needs of the station area.



## Parks, Open Space & Green Infrastructure

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Open space and parks are inherently important to health and wellbeing of the community, and provide vibrancy in urban settings with increasing density as is expected to occur within the Station Area in Kirkland. There are opportunities to enhance the amount and types of open spaces provided within the study area, as well improve connections to open space within, and outside, of the Station Area. The City should think creatively on how to include open space elements that would support the population within smaller urban footprints to strategically consider smaller, park-like areas within new developments. To supplement this approach, gaps identified in larger scale neighborhood or community parks could be accommodated through enhancements and improved access to existing parks nearby the Station Area, as well as through exploring community access to recreation facilities and spaces within the Station Area.

### Coordination with the PROS Plan

On a parallel timeline with the Station Area Plan, the Parks and Community Services Department has been updating the PROS plan, both of 2022. This updated PROS will set the strategy for the City's investments and includes elements related to serving the Station Area. As discussed later in the document, the process of funding and executing these projects will be done as part of the existing capital improvement program (CIP) and capital facilities plan (CFP).

Pocket-parks and amenity considerations that are small in scale have the potential to support a higher capacity of programming opportunities due to its proximity. Examples of programming that can be created include the following:

- Linear Parks
- Dog Runs
- Plazas/Civic Spaces
- Playgrounds
- Exercise Stations

The community would benefit greatly from these expansions and improvements to parks, open space and green infrastructure.

### The Station Area Plan

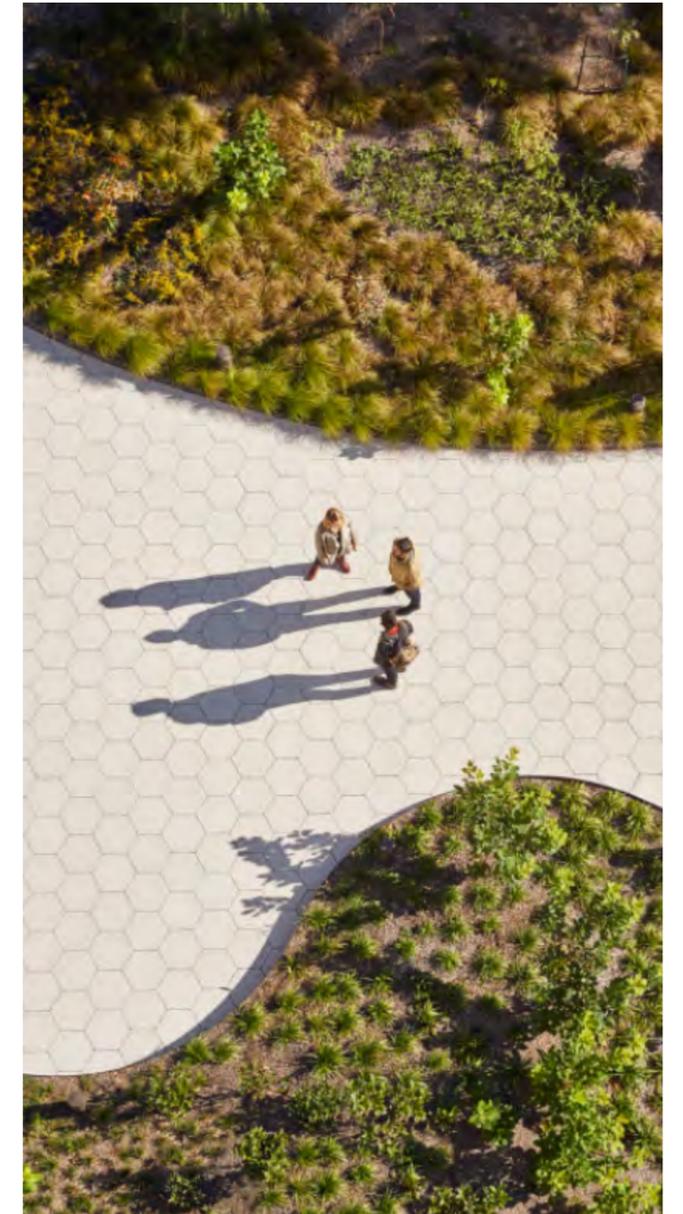
The Station Area Plan provides a unique opportunity to coordinate within the PROS Plan, as well as consider policy changes to the LOS opportunities to provide new open spaces. These approaches can be taken into action in the near term. Options explored through the Station Area planning process include:

- Explore the ability to integrate parks and open space is needed and planned infrastructure investments in the public right-of-way, including street and utility improvements,
- Leverage existing spaced by enhancing existing neighborhood parks, open space around Forbes Lake, and the Cross Kirkland Corridor, these enhancements are identified within Chapter 6.0 Parks, Open Space and Environment .
- Consider the role of school facilities and non-City parks, as well as existing publicly owned parcels in helping to provide recreation opportunities and infrastructure advancements (including excess WSDOT right-of-way for open space benefits such as stormwater treatment, natural areas, and canopy restoration.
- Consider Community Park options that may include supporting the re design of Peter Kirk Park and renovation of other community parks to increase capacity.



## Sustainability, Climate Action, and Resilience

The Station Area is envisioned as a demonstration district that maximizes opportunity for innovation and community benefit around climate action, resilience, and quality of life. The scale and unique opportunities of a mixed-use, transit-oriented district provide a tangible way to move the needle on the City's broad sustainability and resilience goals. Because vehicular trips are one of the major drivers of greenhouse gas emissions, shifting towards more transit and active transportation options will play an important role in reducing emissions. Beyond these fundamental strategies that have Sustainability co-benefits, a Green Innovation Strategy for the Station Area supports innovation in Building Performance, Ecosystem / Green Infrastructure, and Energy / Decarbonization to maximize community benefit for Kirkland's existing residents and employees and new members of the community.





## Schools

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As part of the Final SEIS for the Station Area Plan, School mitigation options were identified to address the anticipated student growth associated with the increased density in the district. The Station Area Project team has coordinated with Lake Washington School District (“LWSD”) throughout the planning process to discuss student generation projected with growth in the Station Area, and to collaborate around ways the City can help the district address school capacity. The final plan anticipates that the City will continue coordination with LWSD to explore creative solutions. The project team has identified the below ways to address school capacity in the plan, with the opportunity for future solutions to be identified.

### 1. Increase development capacity on existing school sites:

The major existing school site in the Station Area is Lake Washington High School. The Preferred Plan Direction contemplates increased density on the site by incorporating it into a future Civic Mixed Use regulating district, shown (in blue), and described on the following page. The Preferred Plan Direction established an increased maximum height allowance up to 75’ on portions of the site. Under the allowed height of 75’, up to 5 stories could be accommodated on that land area, including structured parking above, or below, ground, which could multiply the building square footage and generate sufficient space to accommodate long-term needs. LWSD would need to further study the concept of co-locating different grade levels on this site and issues related to parking and traffic management related to urban school concepts.

In addition, on March 1, 2022, the City Council approved the following item for the Planning Commission work program:

**Growing School Capacity:** The City is consistently receiving feedback from the community and the Lake Washington School District (LWSD) about the capacity issues at current District facilities. This Planning Work Program project, building on a collaboration between City staff, LWSD, and University of Washington urban design students in 2018 (that addressed this issue on a separate site), would partner with the District to explore potential development constraints on existing District-owned properties that create barriers to adding student capacity, and then undertaking code amendments to reduce or eliminate these barriers. Examples might include height, setbacks, parking, and permitting processes.

### 2. Explore development bonus incentives for provision of school space in new development:

Staff evaluated the feasibility of providing bonus density incentives in two broad categories: commercial development and residential development.

#### **Commercial Dedication of School Space**

Based on recent office building sales in the Spring District and downtown Bellevue – areas with similar zoning and building quality to what is expected in the NE 85th St SAP – the value of built space that could be dedicated to school use could be between \$750-\$1000 per square feet.



#### **Residential Dedication of School Space**

An option that staff is continuing to explore is providing for development bonus incentives for provision of school space (likely for pre-K programs) in new residential development of sufficient size to support such facilities. These would likely be located within ground floor commercial spaces which may be economically beneficial to project applicants. Depending on factors such as location and size of these commercial units, these spaces sometimes do not provide significant rental income. Combining this with the possibility of requiring less parking for a pre-K use as compared to general retail or restaurant, there could be a net economic benefit to the project.

### 3. Define active frontages or required retail space to include educational uses:

The form-based code will regulate future development in the Station Area. In order to allow flexibility for more types of educational space to be provided in the future, the Preferred Plan Direction included draft regulating

districts that would allow educational (“civic”) uses in all zones. Additionally, the form-based code will establish allowed frontage types, and land uses, along each street. Where those frontage types may require an active use, educational uses will be included in any definition of an “active” use and/or frontage type.

### 4. Promote partnerships to encourage shared facilities in the Station Area and/or optimize utilization of shared use agreements:

As development interest in the Station Area arises, staff has coordinated with the private sector and the District to encourage conversations to explore opportunities and barriers. These connections should help the City and the District understand the most effective partnership strategies based on shared interests. These partnerships could take the form of shared space agreements or lease arrangements as discussed earlier. City staff will continue to connect the District with potential partners as opportunities arise.

# 5.0 Draft

## Sustainability Framework—

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## Background and Context

The purpose of this Sustainability Framework is to advance the City's objectives and Sustainability Master Plan with the Station Area as a demonstration district that maximizes opportunity for innovation and community benefit around climate action, resilience, and quality of life.

This Framework is aimed to complement the Station Area Plan and envisions a 'future-ready' district that is responsive to quickly changing climate conditions, that takes advantage of the scale and unique opportunities of a mixed-use, transit-oriented district, and that recognizes the pace of market transformation and does not preclude future innovations.

Climate conditions are changing quickly and are anticipated to have wide-ranging effects on our region

by this plan's horizon of 2044. The future climate implications for Kirkland and the station area include:

- Heavier and more frequent storms and rain events, resulting in flooding
- Drought and regional decline in snow and ice in Cascades and Olympic mountains, resulting in irrigation and water shortages
- Sea level rise and ocean chemistry change in ways that are harmful to local marine species like shellfish and salmon
- Temperature ranges, increased extreme heat days, high smoke events due to an increase in regional wildfires
- Increased potential for cardiovascular illness due to heat or for vector-borne diseases
- Increased potential for food availability and affordability impacts from heat, drought, and pests

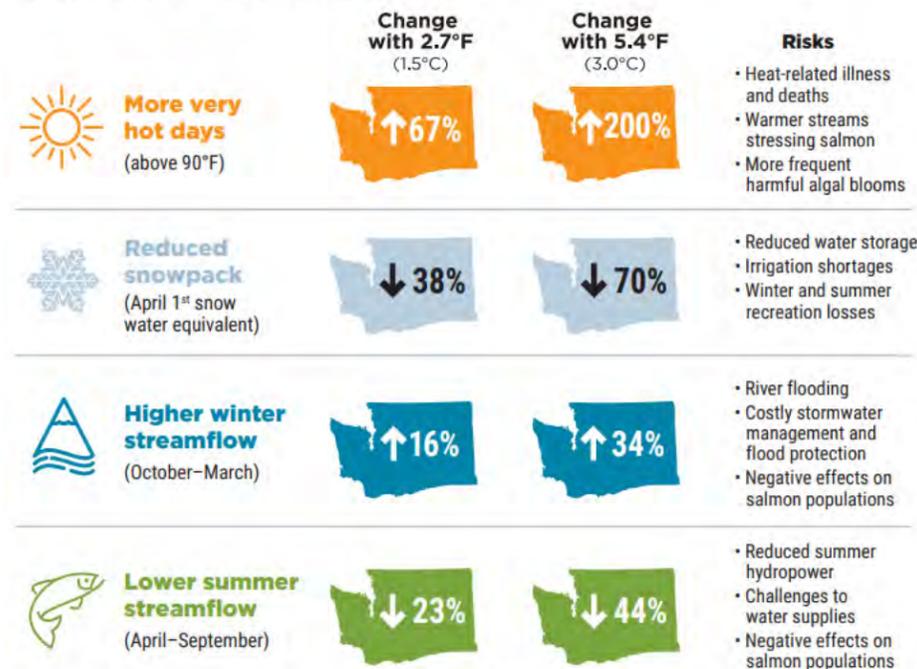
Being along a major highway corridor places the Station Area at higher environmental exposure for GHG emissions, resulting in poorer air quality and noise impacts experienced today. While the Plan includes land use strategies to buffer and mitigate these current impacts, the highways and high level of paving and impervious surface in the Station Area do reduce the community's capacity for resilience looking forward, by increasing flood and heat island risks, by forming barriers for people to get to essential services, and by creating gaps in habitat and stream corridors and reducing ecosystem performance.

The adopted Preferred Plan supports growth with an increasing mix in land uses and transit-oriented development, along with improved biking and walking connections and an enhanced open space network. With the planned growth, there will also be an increased demand for resources including energy, water, and open space among others.

However, a more compact, urban development pattern affords the potential to improve upon community resilience as a part of this planned growth, with strategies including shared resources, a more distributed, flexible approach to infrastructure, and enhancing ecosystem performance.

### Projected Impacts of Climate Change

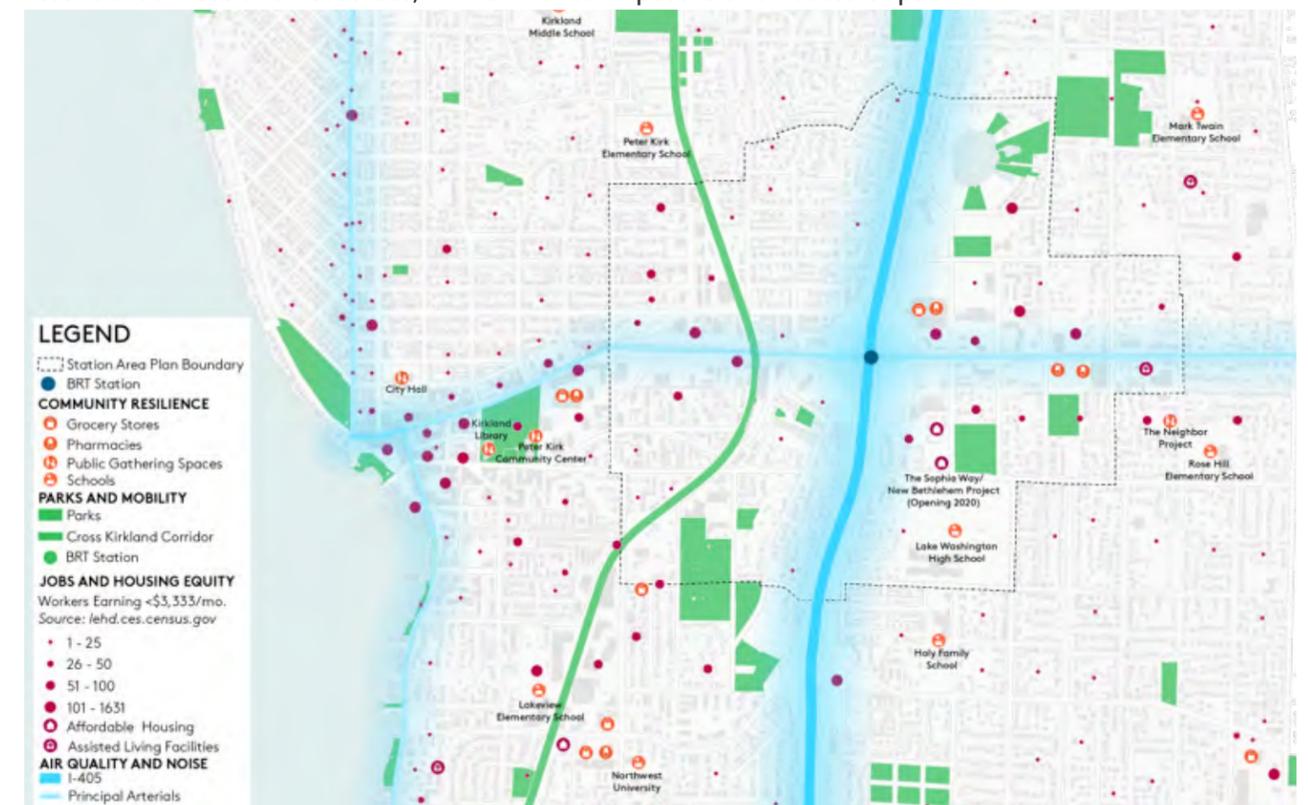
**Projected changes in very hot days, snowpack, and streamflow in Washington State with up to 5.4°F of warming globally.** This amount of warming is currently expected as soon as the 2060s (2050–2079) under a high GHG emission scenario. Higher amounts of warming are possible (up to 8.6°F globally) by 2100 under the high GHG scenario. Changes in hot days are relative to 1976–2005; all others are relative to 1970–1999.



Adapted from UW Climate Impacts Group (Snover et al. 2019)<sup>7</sup>

Source: 2020 Strategic Climate Action Plan, King County

### Essential Services and Resources, Environmental Exposure and Access Gaps



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Many sustainability co-benefits will accrue through the fundamentals of these smart growth concepts represented in the Station Area Plan – particularly in the areas of syncing land use, transportation, and open space together. A crosswalk indicating alignment between projects and Sustainability Master Plan goals is in the Appendix.

Some examples of strategies already embedded in the plan that will support Sustainability benefits include:

**Jobs and Housing Opportunities**

– Currently, Kirkland has significantly more housing than jobs, and many people who work in Kirkland cannot afford to live here. This jobs / housing imbalance creates both sustainability and resiliency challenges. The large number of commuters increases VMT, and the lack of affordable housing makes it difficult for essential workers to reach their jobs. The proposed zoning amendments in the Station Area Plan will help address the citywide jobs/ housing imbalance and can reduce the need for commuting.

**Mobility and Active Transportation –**

The planned mobility and active transportation projects and programs will be essential to achieving VMT reduction and climate goals. These include a suite of actions including access to the BRT station, multi-modal streets, transportation demand management strategies, and specific improvements.

**NE 120th Main Street –**

NE 120th is an important, pedestrian friendly main street for the Station Area with active ground floors and is also envisioned as a green street with plantings which could serve as a habitat corridor and stormwater management feature. These improvements help to strengthen bike and pedestrian connections between Lake Washington High School and Forbes Lake, a valuable open space asset to leverage for ecological and community benefit.

**Green midblock connections –**

These midblock easements are envisioned to help break down large blocks and parcels to a more pedestrian friendly scale. They provide valuable opportunities for stormwater conveyance and treatment and could also provide opportunities for public private partnerships that would allow the city to treat stormwater from the public ROW on private land.

**Forbes Lake Park –**

Forbes Lake is an important existing open space and habitat asset. Investments including an enhanced wetland buffers could help address phosphorous levels in this salmon bearing water body. A proposed boardwalk and potential acquisitions could expand open space access in this area.



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## Sustainability Framework Goals and Principles

To address anticipated climate changes and increased demands for the Station Area, this Sustainability Framework includes all the Sustainability Master Plan (SMP) goals informed by the community (see inset) and establishes a set of goals and principles to maximize community benefit, including sustainability measures, for Kirkland’s existing residents and employees and new members of the community. Like the SMP, the High Performance Building Standards described in KZC 115.62 outline key implementation strategies and actions for development projects to readily tackle these goals.

Sustainability Master Plan (SMP) goals

### Sustainability Master Plan Key Recommendations

The plan is divided into eight focus areas. The following list of recommendations highlights the ideas that garnered the most support and excitement in the community:

#### Energy Supply and Emissions

It is imperative that the energy the community uses is renewable and consistently gets cleaner until it is free from all pollutants. This can be achieved by sourcing electricity that is not produced by combustion of fossil fuels. On a global scale, this conversion should be done to the maximum extent possible by 2030 to avoid the worst impact from Climate Change as the world works towards achieving zero community greenhouse gas (GHG) emissions.

- Secure carbon-free electricity for the community
- Reduce the use of natural gas in buildings and convert existing systems to clean electric
- Reduce vehicle miles traveled

#### Sustainable Material Management

Reducing consumption and waste by reusing materials and fixing items instead of replacing or discarding them helps us transition to a system where everything is reused or recycled.

- Achieve zero waste by 2030
- Compost all food and yard waste
- Reuse material and recycle the rest
- Support product stewardship

#### Buildings and Infrastructure

Buildings and related infrastructure not only use a great deal of natural and human made materials, but their construction and operation are responsible for over one third of the community’s GHG emissions. Since water is a precious and essential resource, we should ensure we don’t use more than required as it is also being impacted by climate change.

- Incentivize construction of high-performing, low energy use zero-emission structures
- Retrofit existing buildings to reduce energy use
- Increase water efficiency in all buildings and infrastructure

#### Sustainable Governance

Responsible governance helps foster decisions that are good for the environment, social equity, and the economy.

- Integrate sustainability into every major decision the City makes
- Coordinate sustainability programs and policies across all City departments
- Ensure processes for public participation are fair, accessible, and inclusive
- Build community resiliency
- Maintain the City’s responsible fiscal practices

#### Land Use and Transportation

Transportation alone accounts for about half of Kirkland’s community greenhouse gas emissions. Efficient land use and transportation patterns can be optimized to use the land we have more efficiently, and to help the community improve air quality, reduce congestion by driving less, and utilize many cleaner transportation options such as biking, walking, transit use and carpooling.

- Employ Smart Growth principles in all City planning practices and codes
- Reduce the average amount each person drives by 20% by 2030 and 50% by 2050
- Ensure that people of all ages and abilities can comfortably get around by walking or bicycling
- Grow the annual number of weekday transit riders by 10% each year

#### Sustainable Business

Local businesses, both small and large, contribute extensively to the livelihood of the community and enhance Kirkland’s sense of place. The city can assist businesses to become more sustainable and help rebuild the local economy through local and regional partnerships.

- Provide personalized environmental technical support to businesses
- Develop a diversified, equitable and resilient local green economy

#### Natural Environment and Ecosystems

Air, water, land, plants and animals and the entire ecosystem that supports them are vital to human health and contribute immensely to the community’s quality of life.

- Protect and enhance the water quality of Kirkland’s streams, lakes and wetlands
- With the community’s help, restore at least 500 acres of City-owned natural areas and open space park lands by 2035
- Eliminate the discretionary use of synthetic pesticides in parks by 2025
- Make sure that all residents can walk to a park or open space
- Meet the overall goal of citywide 40% tree canopy cover goal by 2026
- Manage Kirkland’s urban forest resource for optimal health, climate resiliency and social equity

#### Healthy Community

Communities that have access to the necessities of life such as food, water, housing, jobs and opportunities are happier and healthier. It is important for all members of the community to feel they belong and that their city is equitable and socially just.

- Double the number of P-Patches or other community gardens by 2025, and again by 2030
- Reduce how much potable water each person in Kirkland uses by 10% by 2025 and 20% by 2030
- Help refugees and immigrants, people of color and economically struggling residents access the resources they need to thrive
- Build a community that helps young people become engaged, competent and responsible members of the community
- Make Kirkland a safe, inclusive, and welcoming place for all people
- Expand housing options for all income levels
- Provide more recreation facilities

### Goals

In support of the project objectives of an inclusive district that supports community benefits and quality of life, and the Council- and community-identified priority innovation areas of Ecosystems / Green Infrastructure and Energy / Decarbonization, the following goals have been developed. Opportunities around these goals are explored further in the following frameworks.

- Support a ‘future-ready’ district that is more resilient to the impacts of climate change, to ensure that future innovations are not precluded, and to recognize the pace of market transformation
- Lead the way on realizing sustainability master plan goals through public infrastructure projects and services in the Station Area
- Support High Performance Buildings to achieve emissions, energy, materials, and water targets
- Support multi-benefit ecosystem and habitat improvements, reduce impervious surfaces, and address gaps [with the Green Factor Code]
- Support partnerships and opportunities within the Station Area for developments to plug into shared / distributed infrastructure, especially reused water and community energy systems, and to support the ecosystem performance and resilience through beyond the site contributions to tree canopy and steam health
- Support community health and emergency preparedness
- Direct incentives towards efforts that support social resilience including energy justice and equitable distribution of sustainability improvements, and/or towards efforts that achieve multiple benefits

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## NE 85th Station Area Ecological Framework

### Subarea Context and Priorities

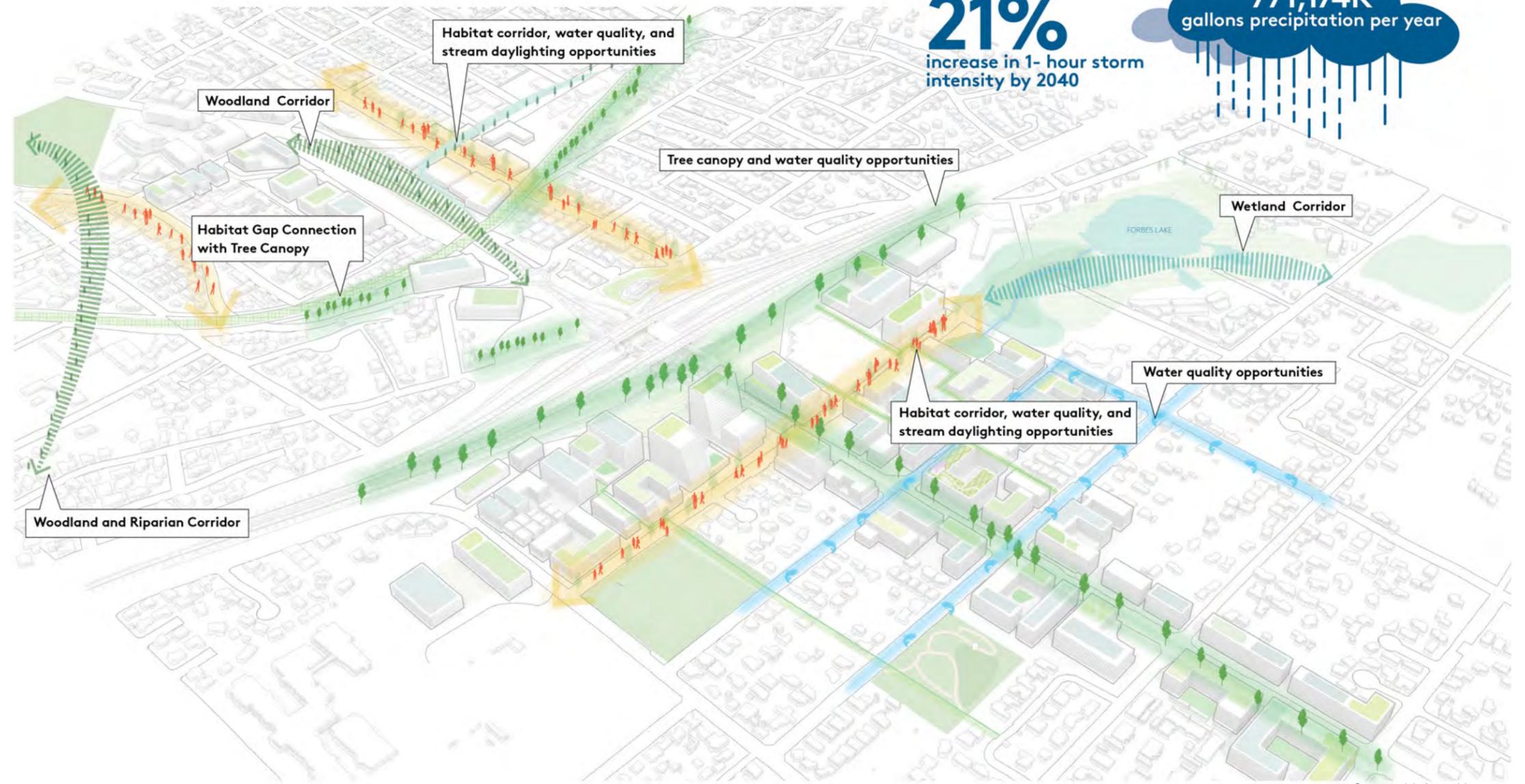
There is an urgency to address anticipated climate changes including more frequent storms and flooding; drought and water shortages; negative impacts to salmon; and increased extreme heat days and food availability. Progress can be made through project and site-level interventions, but by definition, cooperation is needed for system-wide improvements to ecosystem health and functioning.

The subarea has glacial geology with kettles and moraines and includes substantial rolling hills and topography. It is comprised of two watersheds: the Forbes Creek watershed and the Moss Bay watershed. The Forbes Creek watershed is a salmon bearing habitat. It also includes dense areas of existing vegetation interspersed through neighborhoods.

This vegetation primarily exists in an urban matrix consisting of both patches and disconnected habitat corridors. These patches and corridors are made up of layered vegetation including tree canopy and understory planting which supports structural habitat that provides for food, forage, and shelter for mammals, birds, and insects. Three of these are of particular significance: a woodland corridor at NE 85th St between 6th St and NE 114th Ave, a riparian corridor that includes Everest Park, and the wetlands and associated lands surrounding Forbes Lake.

To support the goals of enhancing urban ecology, biological diversity, and tree canopy within the station area, existing patches and corridors should be protected, while filling in the gaps between them.

### Ecology and Green Infrastructure Opportunities Framework



Source: Mithun, Herrera

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## Prioritizing Ecosystem and Green Infrastructure Strategies

### Multiple Benefits

A guiding principle for the ecosystem and green infrastructure strategies prioritized here is that they create multiple benefits across ecosystem functions such as: improving mental and physical health; cleaning water and air; increasing biodiversity; and providing resiliency to the impacts of urbanization and climate change impacts, including increased frequency and intensity of rainfall and warmer temperatures.

### Resilient, Distributed Green Infrastructure

The recommended green infrastructure strategies are informed by a decentralized or distributed systems approach to infrastructure and utilities that, when they are interconnected, has been shown to increase resiliency. Resiliency is the ability to respond to chronic or sudden stressors, such as significant rain, flooding, or heat events. Successful green stormwater infrastructure projects use a mixture of regional facilities and distributed stormwater features to provide multiple benefits including stormwater conveyance, treatment and adding significant value to the urban habitat, as well as to the pedestrian realm, through green streets.

### Connected and Living Systems

To support citywide goals around tree canopy and habitat, this framework builds on Kirkland’s existing urban forestry plan and utilizes a Green Factor criteria to incentivize integrated green infrastructure project contributions at the site scale, leveraging new buildings, sites, frontages, open spaces, and streets.

Opportunities to support broader ecosystem and habitat function beyond the site scale are very important for living, resilient systems. Existing stormwater regulations and standards offer a strong foundation to support ecosystems; however, there are gaps that can reduce participation of developments.

There is an opportunity to support more stringent water quality standards and biodiversity by considering amending infeasibility criteria and providing other incentives, that would also anticipate future regulations

addressing water quality pollutants (such as metals, 6PPD quinone, and phosphorus) and permit drivers to retrofit existing development.

“Beyond the Site” opportunities include a range of strategies and innovations that should not be precluded, and are illustrated in the Ecosystem Opportunities Framework:

- Contribute to in-watershed habitat connectivity, tree canopy, and stream health goals beyond the site boundary
- To address flooding, reduce impervious surfaces, treat stormwater from the public right-of-way on the project site, or contribute to a district green infrastructure project
- To support ecosystem health, provide enhanced stormwater treatment for water quality pollutants including metals, 6PPD Quinone, and phosphorus, with a priority on the Forbes Creek watershed; and support stream health including daylighting of piped portions with a priority on the Moss Bay watershed
- To support urban habitat, consider design and management practices that provide dark sky environments and bird-safe construction, and adaptive management of landscapes
- To reduce potable water needs and address droughts, contribute to water use efficiencies, and include rainwater capture, harvesting, reuse, and on-site treatment

Stretch strategies for additional consideration include shared and distributed systems, like blue streets or purple pipes, and should be studied further. Some areas should be further explored by City departments and in collaboration with partner organizations or local utilities. For example, widespread adoption of water recycling could be facilitated by installation of district purple pipe as the city performs ongoing maintenance on public streets. There would need to be conversations with the City, King County, and water retailers regarding implications of this shift.



# Draft

## NE 85th Station Area Energy Framework

### Energy and Decarbonization Opportunities Framework

#### Subarea Context and Priorities

Energy use in the built environment is a major driver of climate change-related emissions. The concept of Embodied Carbon refers to emissions that occur during the manufacture, transport, construction, and operations of a building or facility. There is significant movement within the building industry towards decarbonization including construction and building materials, as well as building operation.

Regionally, the K4C King County Cities Climate Collaboration and Shift Zero advocacy alliance are examples of groups sharing technical, policy, and other expertise to scale up action. The building industry is well positioned for construction and building materials reductions, and tools like the Embodied Carbon in Construction Calculator (EC3), are widely known and used today. Similarly, our region is well positioned for operational reductions. The Washington State Energy Code (WSEC) is one of or the most aggressive in the country with respect to efficiencies, renewable energy production, and low-carbon systems.

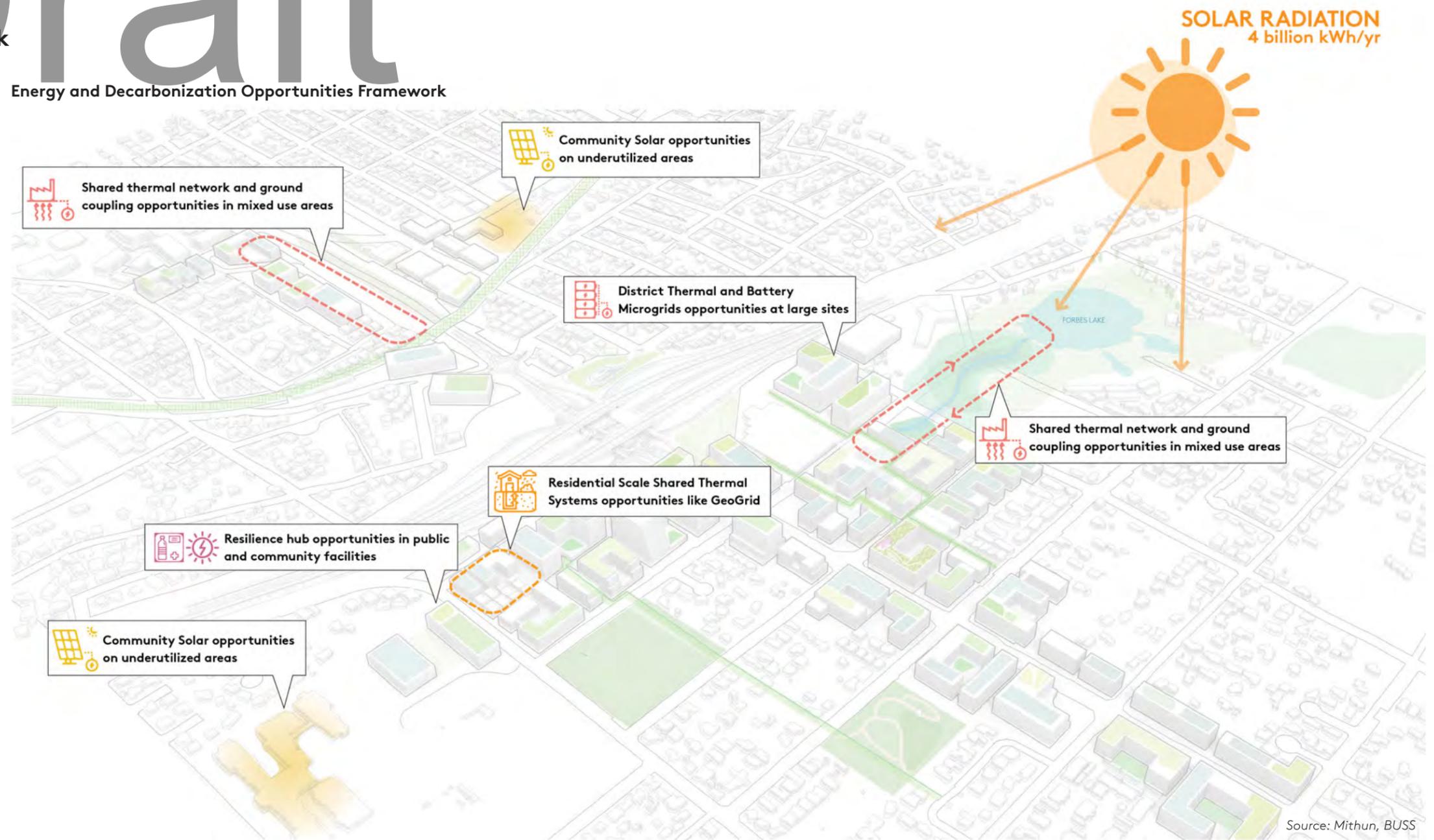
Strategies should begin to align with the recently approved 2021 WSEC, which will become effective July 1, 2023, as well the SMP target of 80% emissions reduction from baseline by 2050. These strategies should be revisited once the metrics of the WSEC are finalized, with an understanding that the WSEC will require renewable energy production, efficiencies, and low-carbon technologies; and in support of the City's SMP and High Performance Building Standards, development will be moving towards all-electric energy and more electric vehicle charging.

Single-occupancy vehicle trips are a significant driver of emissions for the city, and the importance of leveraging the Station Area as a transit-oriented community with potential for vehicle trip reduction should not be understated. This can be achieved through a combination of land use and urban design policies,

together with active transportation improvements and demand management (TDM) strategies and programs. These actions and strategies are primarily addressed in other areas of the Station Area Plan and Implementing Codes; however, their sustainability co-benefits should be recognized.

Different land and building uses tend to have differing energy use profiles, both in the typical amount of energy needed for operations and in the time of energy demand (called load). Because of the Station Area's planned mixed of uses and relatively compact development pattern, there are unique opportunities

to gain efficiencies and balance loads during different times of the day. District energy systems are being used today in Puget Sound by a variety of entities, including institutions like Seattle University or large organizations like SeaTac; and examples of public-private models exist in other places in the U.S. and Canada.



# Draft

## Prioritizing Energy and Decarbonization Strategies

Addressing energy decarbonization in the built environment involves two linked approaches: lowering the demand for energy overall and investing in cleaner sources of energy. In both cases, actions should be taken at the individual building, multi-building, and district scales.

### Multiple Benefits

As with other strategies in this sustainability framework, multi-benefit solutions have been identified wherever possible. One example in this section is the opportunity for co-location of future energy production with resiliency hubs.

### Sharing Resources

With a planned mix of development types, compact form, and anticipated street and public works improvements, the Station Area presents opportunities for shared energy and balancing loads. Different land and building uses tend to have differing energy use profiles, both in the typical amount of energy needed for operations and in the time of energy demand (called load).

Because of the Station Area’s planned mixed of uses and relatively compact development pattern, there are unique opportunities to gain efficiencies and balance loads during different times of the day. There are opportunities to facilitate shared resources through partnerships and other models. District energy systems are being used today in Puget Sound by a variety of entities, including institutions like Seattle University or large organizations like SeaTac; and examples of public-private models exist in other places in the U.S. and Canada.

### Multi-Source Approach

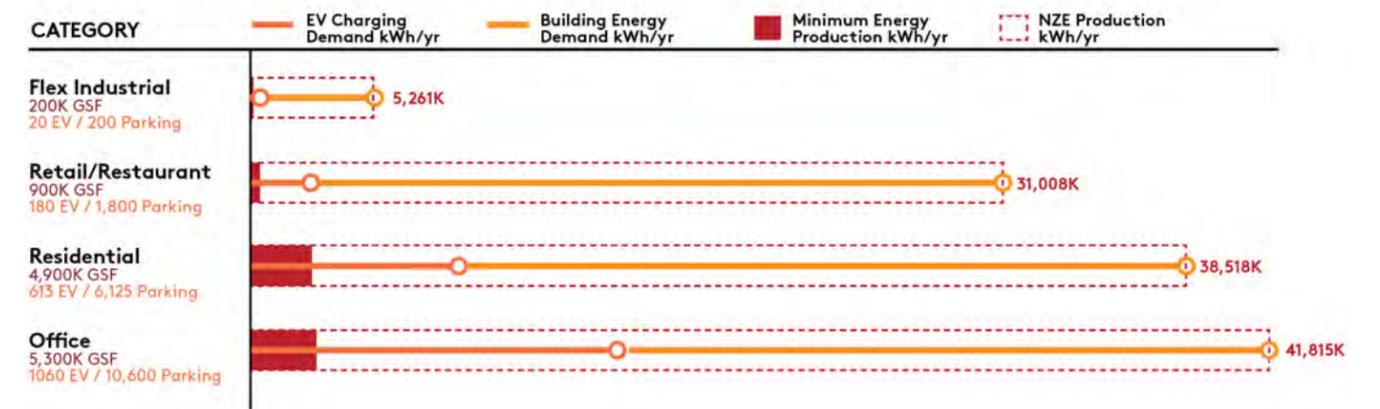
One of the major trends in energy today is a shift from high temperature, centralized generation plants to a more distributed, multi-source approach to generation, transmission, and storage of energy. The opportunity strategies reflect this shift in approach, while recognizing that this is likely to be a mid- to long-term process.

Building-scale decarbonization will be supported through High Performance Building Standards and third-party sustainability protocols that encourage developments to not only design, construct, and certify high performing buildings. Recognizing the imperative for decarbonization, baseline requirements will support energy efficiency, on-site renewable energy production (such as rooftop solar), and embodied carbon assessments. Baseline requirements will also include strategies that require low private investment but provide high public value and may function better with widespread adoption, such as planning for construction materials diversion.

“Beyond the Building” opportunities include a range of strategies and innovations that should not be precluded and could be facilitated as the market continues to move rapidly toward decarbonization. Some of these are illustrated in the Energy Opportunities Framework on the prior page:

- district thermal and battery microgrids
- residential-scaled thermal networks
- community solar, energy storage and battery
- distributed, shared systems that move towards “5th Generation” systems that move away from centralized, high temperature plants to distributed, multi-source, more efficient energy systems
- Resilience Hubs –community-serving facilities augmented to support residents, coordinate communication, distribute resources, and reduce emissions

Stretch strategies for additional consideration include District and Shared Thermal and Low-Carbon systems. Additional technical guidance on how to contribute to district energy opportunities could help increase developer participation. This could take the form of a task force assembled by the city to provide technical support to developers considering district energy contributions, or the issuance of RFPs for partnerships on discrete strategies. When utility or street improvements are planned, it is an opportune time to evaluate the potential for installation of shared thermal system infrastructure components such as thermal storage, ambient loop systems, group coupling, and waste heat recovery including sewer heat recovery. The City and local utilities should also consider a study of the implications of requiring all electric buildings on the grid and a cohesive approach to facilitating their goals.



# 6.00 Draft

## Vision and Urban Design Framework—

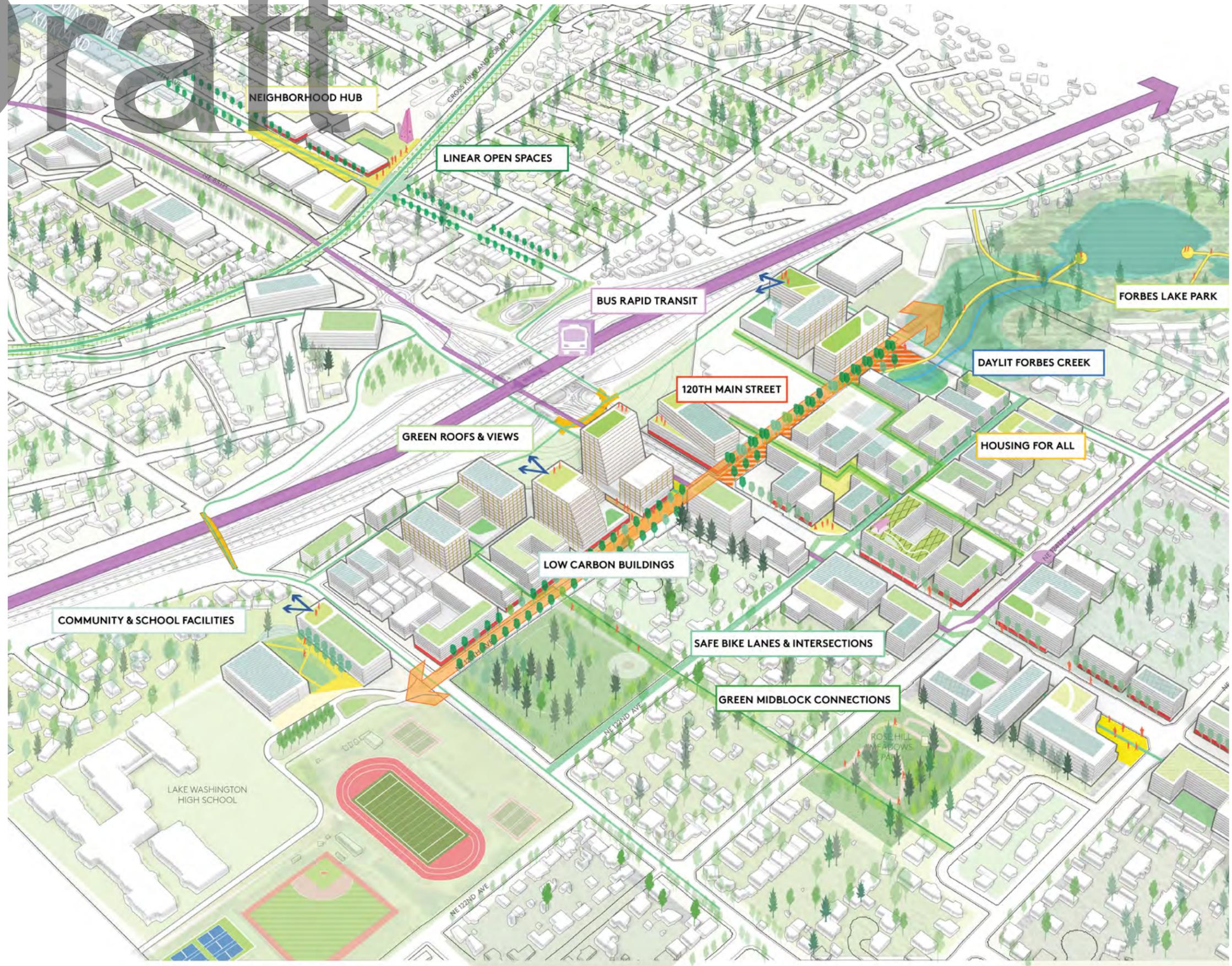
### Long Range Vision

This Station Area Plan envisions a vibrant, mixed use district that is a model of innovation, equity, and quality of life. Development focused around the future station ensures high ridership and supports last mile connections via walking, biking, and transit. Buildings transition in scale as they approach existing neighborhoods to respect the established context while encouraging new jobs and homes. A mix of housing types reflects the needs of a diverse community at a variety of income levels.

A robust public realm is punctuated with key focal points for retail and services along NE 85th St, 120th Ave NE, and 7th Ave. These focal points provide increased opportunities for pocket parks, green infrastructure, and other amenities that enliven the street. Signature public spaces like Forbes Lake Park and future plazas in large developments create spaces for people to connect with nature and each other. Within development a combination of courtyards, green roofs and other outdoor areas supplement the public realm. Flexible standards for educational and civic spaces encourage creative solutions to provide capacity for students to learn and the community to gather or recreate with future growth in the district.

Finally, this district's innovation is shown in the ambitious sustainability features woven into the district. Community solar power generation, district-scale energy networks, and low-carbon building technologies all reduce the climate impacts of this district. Similarly, green infrastructure, new tree canopy, and ambitious low water use buildings improve the ecological health of the district and its residents.

# Draft



## Urban Design Framework

# Draft

Alongside the vision for the Station Area Plan is an urban design framework that establishes a set of overarching strategies to shape development and investments in the district in the future. These strategies are reflected throughout subsequent chapters of the Station Area Plan as well as implementation tools like Form-based Code and Design Guidelines.

### 1. Inclusive growth near transit.

There is a mutually supportive relationship between transit ridership and the amount of housing, jobs, and services near transit. The Station Area Plan establishes areas closest to the future BRT Stride station as priorities for increased development opportunities to broaden the mix of jobs and housing choices in a more compact form. In addition, the areas closest to the future station on the east side of I-405 are reserved for taller office development. This serves a dual role of ensuring high ridership for the station and using larger office buildings as a buffer to protect residences from the noise and air pollution that come from high volume roadways like I-405.



Inclusive Transit-Oriented Growth

### 2. Ensure appropriate development scale with transitions to adjacent neighborhoods and design regulations.

While planning for growth in the station area, supporting transitions in scale to adjacent neighborhoods is a key focus of the urban design framework. The form-based code regulates elements of massing and form to step down from larger commercial office blocks to mid-rise neighborhood mixed use development, and eventually to smaller “missing middle” infill. Special rules for transitions, landscaping requirements, and other policies further specify how new development should respond to the existing context. Additional design regulations will ensure that building massing and details reflect a pedestrian-oriented district.



Scale and Transitions

### 3. Establish a strong public realm spine and transit-oriented community that puts people first.

The vision for the station area includes a robust, vibrant public realm with a mix of active ground floor uses, generous sidewalks, and improved tree canopy. The urban design framework identifies key streets where a combination of public and private investments will create focal points and destinations for the district, the city, and the region. These include enhancing NE 85th Street to a more urban street that becomes a place for people to engage, supporting retail-focused streets like 120th Ave NE near Forbes Lake, and neighborhood hubs like the 7th Ave corridor in Norkirk. Each of these focal points brings together recommendations around mobility, public realm, land use, sustainability, and massing.



Public Realm

### 4. Bridge and connect across barriers with a multi-modal rich transportation network.

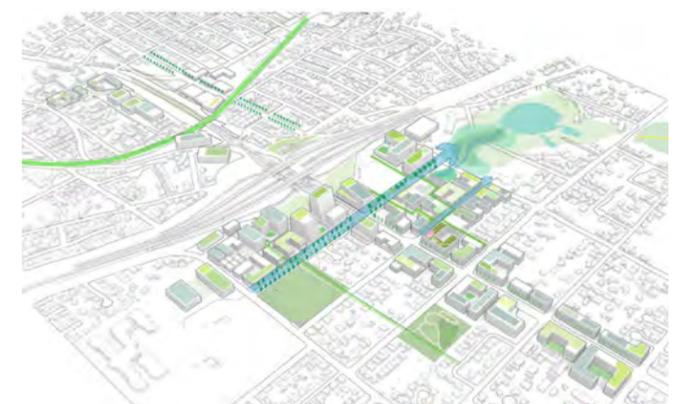
As a station area plan, it’s particularly important to create a rich network of mobility options that connect transit users between the station and key services and destinations, as well as through the redeveloped interchange across I-405. Green midblock connections help break down large blocks into pedestrian-scaled routes. Improved sidewalks and bikeways ensure that the station area infrastructure makes walking and biking safe and pleasant. Finally, increased transit service such as for the BRT station and K-line, and flexible parking policies balance the needs of roadways and parking demand. This holistic approach to mobility is integrated into all aspects of the urban design framework.



Mobility Network and Connections

### 5. Leverage existing natural systems and resources, enhance ecosystem performance, and increase resilience.

Like all of Kirkland, the station area is a rich natural environment with important ecological assets and opportunities to improve the sustainability and resilience of the district. Updated policies encourage stormwater management through on-site green infrastructure like bioswales in streetscapes and within larger developments. Street types in the form-based code will lead to increased tree canopy in the public realm, and ecological assets like Forbes Lake become the focus of a new boardwalk network and “trailhead” that’s integrated into the streetscape at 120th Ave NE and NE 90th St.



Natural Systems and Resources

### West Character Sub Areas

### East Character Sub Areas

# Draft

The Urban Design framework is a cohesive set of design strategies used throughout the Station Area. Within the larger urban design framework, character subareas specify the unique opportunities and desired elements for each portion of the study area. These subareas can inform public investments, design guidelines for future development, and placemaking.

West of I-405, NE 85th Street is grade separated, and the topography of the area creates two distinct districts: the Maker District in the Norkirk and Highlands neighborhoods and the Downtown Gateway District in the Everest and Moss Bay neighborhoods. Here, the focus is supporting pedestrian-oriented districts and enhancing Cross Kirkland Corridor, as the major north south connection.

#### Maker District

Pedestrian-oriented district building on Norkirk's character and excellent Cross Kirkland Corridor trail connections. 7th is a lively connection between the BRT drop off and old downtown. The traditional mixed industrial/commercial character of the area is recognized while encouraging more urban uses supporting "maker" activities, locally-owned small businesses, active lifestyle and recreation-related private and public uses. Existing cemetery is an opportunity for green space that provides opportunities for walking and more passive recreation.

#### Downtown Gateway District

Gateway district to Downtown Kirkland via 6th St that emphasizes mid-rise residential and office uses along 6th and important bicycle and pedestrian connections along green pathways to and from the station and the Cross Kirkland Corridor. Providing connection between employment centers. This district will also provide the greatest opportunity to accommodate affordable housing within this higher density.

East of I-405, NE 85th Street is an important connector and gateway to Kirkland from the east side. The Plan envisions NE 85th Street as a place to be, rather than travel through, that encourages people to gather and spend time in a lively public realm. It is supported by a robust mobility network that bridges existing barriers and provides safe crossings. The Forbes Lake District and Green Innovation District envision a strong public realm connection along 120th Ave NE, between North and South Rose Hill neighborhoods; and the Rose Hill Gateway District similarly envisions a cohesive public realm and safe crossings along NE 85th Street.

#### Forbes Lake District

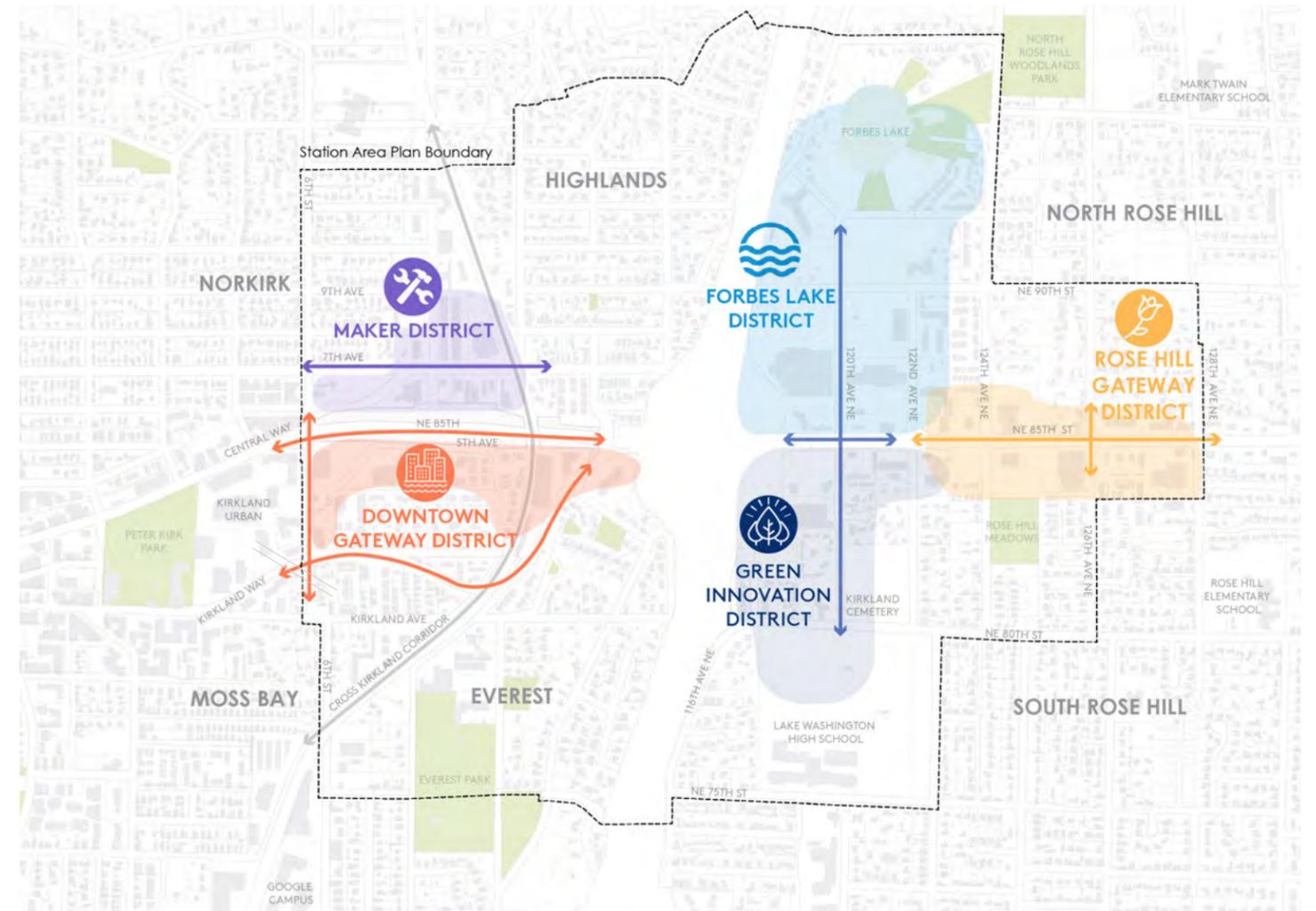
A walkable mixed-use district with opportunities for shops and office uses as well as mid-rise residential uses and higher intensity office uses, organized around a green main street corridor with retail and active uses combined with small open spaces on 120th that connects to Forbes Lake. Biophilic design and visible water, energy, and biodiversity strategies tell the story this place.

#### Green Innovation District

This vibrant, mixed use district is a model of innovation and place for community, students, and the workforce to connect. It transitions from shops and office uses to townhouses, small apartment buildings, and civic uses. Active transportation choices, connections to green space, and walkable South 120th offer a healthy lifestyle. Views abound.

#### Rose Hill Gateway District

Corridor-based gateway with a mix of active ground floors and mid-rise residential along NE 85th that focuses on creating a strong sense of arrival from Redmond with streetscape design, public art, and urban design features. This district will also provide the greatest opportunity to accommodate affordable housing within this higher density. This district will also provide the greatest opportunity to accommodate affordable housing within this higher density.



Character Sub Areas

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## Character Subarea Precedent Imagery

Maker District



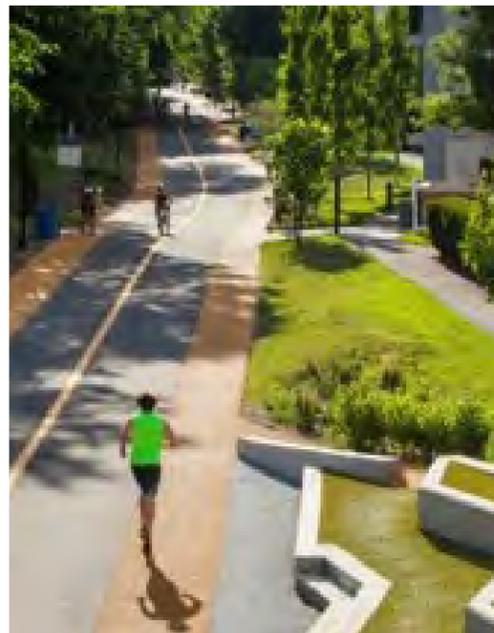
Forbes Lake District



Green Innovation District



Downtown Gateway District



Rose Hill Gateway District



# 7.C Draft

Land Use and  
Zoning —

# Draft

## Land Use & Zoning Concepts and Goals

The future land use concept for the station area focuses on two main ideas: establishing mixed use areas of various intensities in currently commercial or industrial zones and introducing lower scale missing middle housing types in those existing residential areas which are closest to the station. This land use concept is the basis for the form-based code regulating districts. The Station Area will facilitate existing City allowances for Missing Middle Housing typologies.

### The Form-Based Code

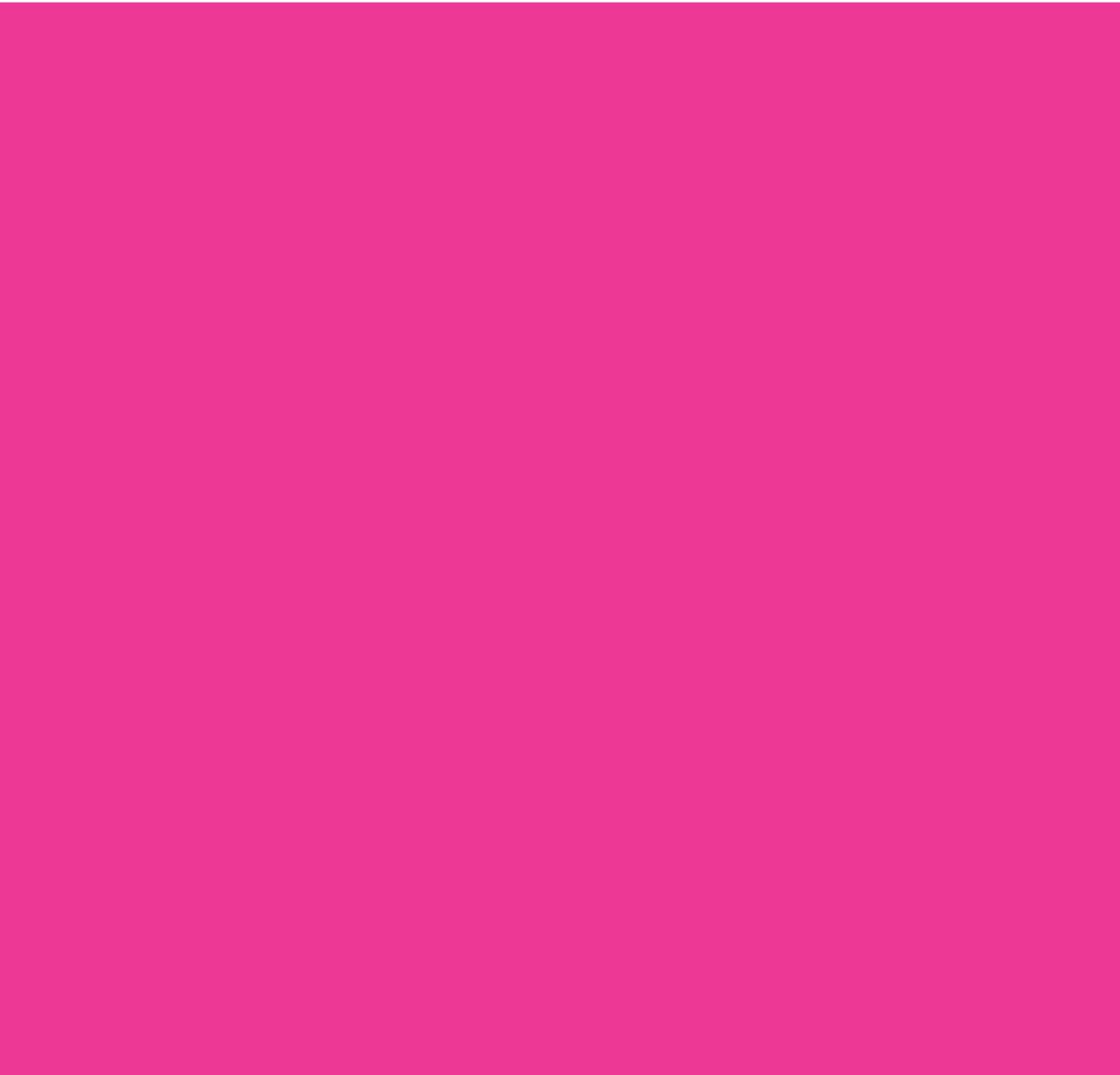
Within the Station Area, residential uses will be buffered from the I-405. The Form Based Code will restrict new residential dwellings and sensitive uses abutting I-405 to reduce exposure to air pollution and noise. This will improve the adjacent aesthetic along the highway and enhance overall wellbeing for new residents. Alternatively, encouraging infill housing wherever possible will be critical to include alternative housing types, and will help to increase overall housing and choices in Transit-Oriented development (TOD) and other centers and areas. Requirements that development provide a minimum of activity units to achieve its desired transit-oriented development, as well as establish an expected amount of affordable housing is expected within the Station Area. Incentivizing residential uses in mixed-use developments will help to contribute to this goal emphasizing a range of unit types, sizes, and affordability levels.

Design standards will be implemented through the Form Based Code to ensure compatible development and transitions. The Design standards will also help to encourage building designs that break up the massing to avoid monolithic forms, particularly for tower style developments. Limits on the footprint of tower-style development to regulate relationship of building massing to site open space. Design of exterior building illumination to reduce light pollution and spillover into adjacent, lower density neighborhoods outside the station area, including the use of shielding lighting, ground level fixtures, or other screening techniques.

All inclusive neighborhoods with nodes of commercial gathering places and essential services in walking distance should be facilitated to create 15 minute neighborhoods. While existing businesses and households should be retained and the City could provide incentives for development that help to retain these key spaces.

### Green Innovation and Building Standards

Within the Form Based Code districtwide green building standards, incentives and credentialing programs will be implemented. Retrofits to existing buildings to reduce energy use will also be encouraged. These goals will help to reduce energy consumption by retrofitting existing buildings with any renovations or upgrades.



# Draft

Note: The Form Based Code will control allowed Building Heights across the site including stepbacks AND buffers. The transition areas are preliminary and subject to further development in 2022.  
All heights are Maximum Allowed Height. Public benefits/improvements will be required to achieve maximum height.

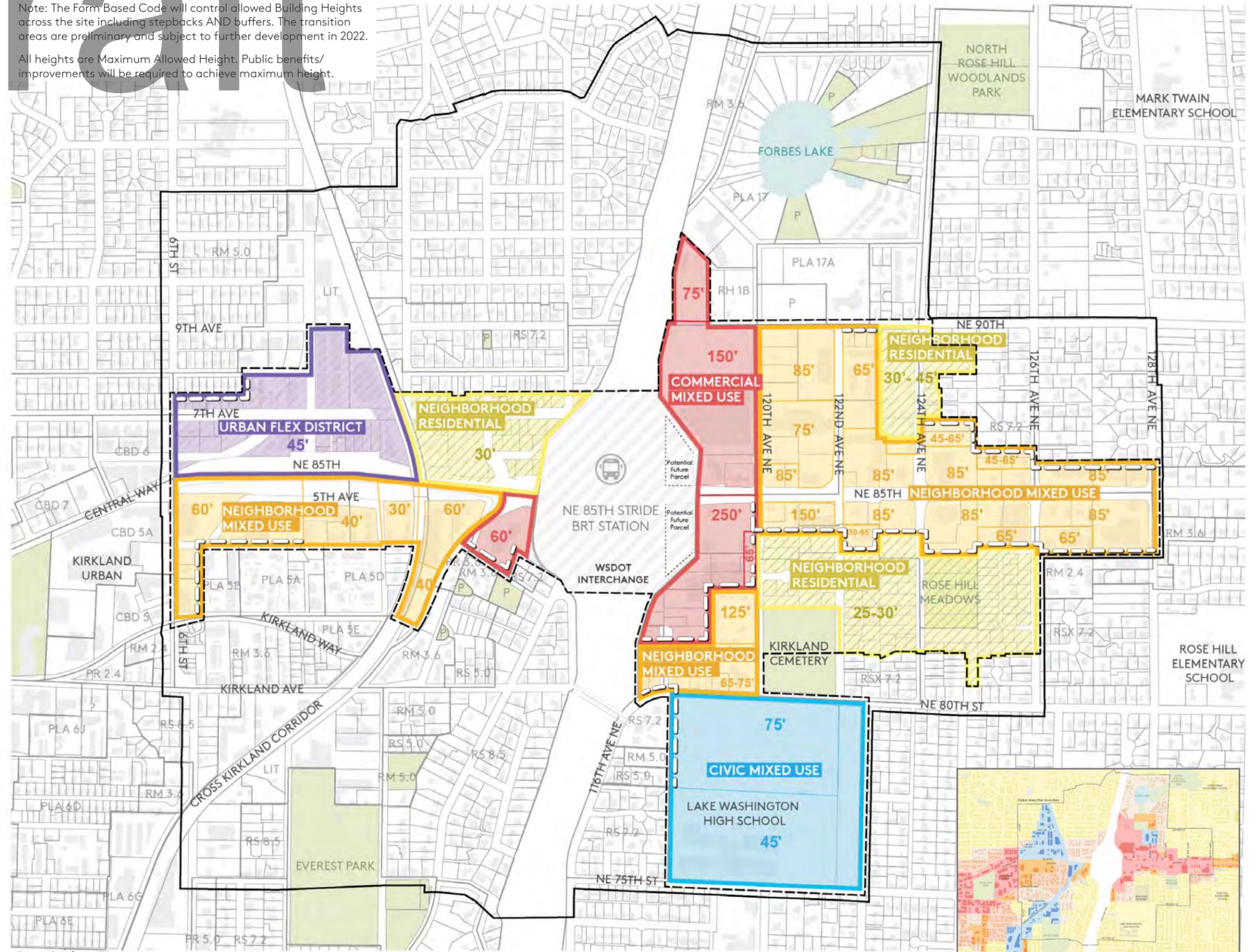
## Future Land Use Map

Regulating Districts are intended to translate the vision and goals documented in the NE 85th Station Area Plan into standards that define allowed uses, lot parameters, building massing, and height controls. Regulating districts consist of two elements: Regulating District Standards that specify development standards for each district, and a Regulating Plan that maps these districts to specific parcels.

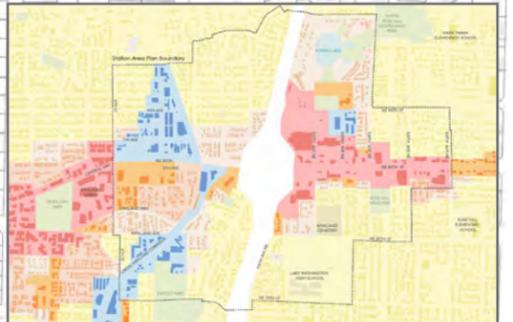
The Regulating Plan maps the applicable areas of the form-based code area with the appropriate regulating district designation. Each designation includes two parts: a district designation followed by the height subdistrict for that zone. Heights are stated in terms of maximum base and bonus heights. For instance, NMU 85/150 would reflect a base maximum height allowance of 85' and a bonus maximum height of 150'. Refer to the Incentive Zoning program for details on utilizing the bonus allowances.

Mixed use areas are represented in the form-based code regulating plan as Commercial Mixed Use, Neighborhood Mixed Use, Civic Mixed Use, and Urban Flex districts. The Commercial Mixed Use district does not allow residential and focuses on institutional and commercial land uses, with active ground floor uses on key streets. Neighborhood Mixed Use and Civic Mixed Use districts allow for a combination of residential, institutional, and commercial uses, with different height subdistrict's established. The Urban Flex district allows for light industrial, some residential, and commercial uses consistent with a neighborhood scale, pedestrian oriented environment. Residential areas intended for lower intensity infill are represented by the Neighborhood Residential regulating district

- Commercial Mixed Use
  - Urban Flex
  - Civic Mixed Use
  - Neighborhood Mixed Use
  - Low Density Residential
  - Park/Open Space
  - RSX 7.2 Existing Zoning
  - Form-Based Code Boundary
  - Station Area Plan Boundary
  - Preliminary Transition Area\*
- \*See Exhibit A5



Regulating Plan



Existing Land Use

# Draft

## The Form-Based Code

In December 20221, City Council voted to confirm the Preferred Plan Direction. Implementation of the vision established in the Preferred Plan Direction and forthcoming NE 85th Street Station Subarea Plan requires a comprehensive set of regulations and supporting design guidelines. This form-based code is intended to facilitate development in the Station Area with clear and predictable standards that support transit-supportive development intensities in a high quality, pedestrian-oriented built environment.

### Form-based Codes Overview

Form-based codes are an approach to land use regulation that focuses on physical form as a primary element of zoning. Conventional zoning evolved with a focus on the separation of land uses, and over time has adapted to take on more complex topics like building height, massing, and other elements of physical form. This can create zoning codes that have unpredictable outcomes, do not achieve the character desired by the community, and which become complex to administer.

By contrast, form-based codes are organized around the desired physical character of future development with graphic, clear illustrations. This focus on physical form can result in future development that better matches the desired character of an area. One key aspect of form-based codes is that they can better link private development to the character of adjacent development and public spaces, creating a more seamless, inviting public realm.

## Regulating District

Building Height  
Building Massing  
Facade Modulation  
Side & Rear Setbacks

## Frontage Type

Front Setbacks  
Ground Floor Design  
Cafe & Amenity Zones

## Street Type

Sidewalks  
Trees & Street Furnishings  
Bike Facilities  
Road Widths



Form Based Code Elements

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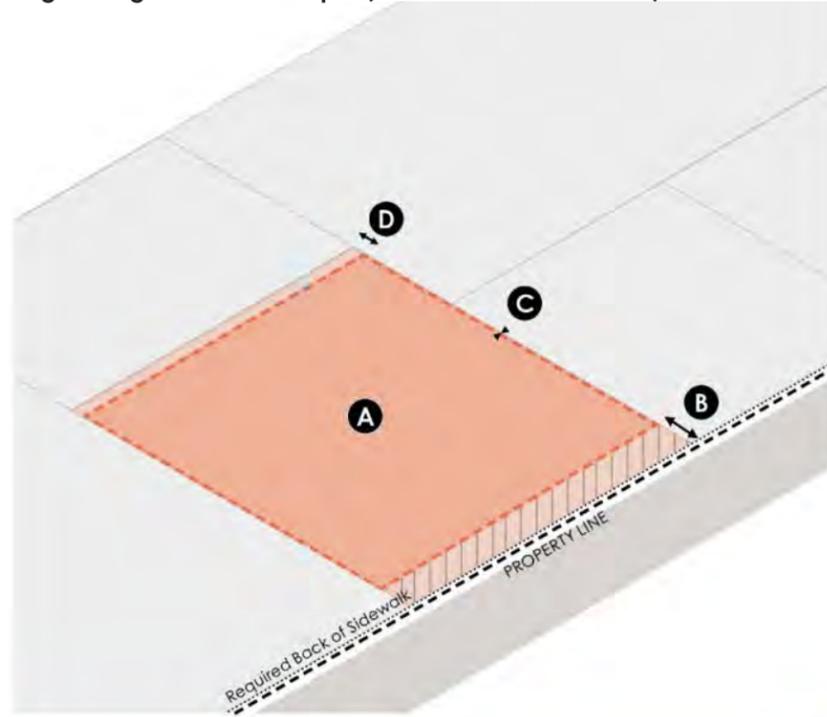
## NE 85th Street Form-Based Code

The form-based code for NE 85th St Station Area Plan applies to a subset of the larger study area (see regulating plan). The NE 85th St form-based code is key to realizing several aspects of the vision and goals of the overall plan. For instance, frontage standards include ground level parking setbacks that require structured parking to be located behind ground level uses that activate the public realm. Regulating districts like the urban flex district include standards to encourage smaller scale commercial spaces that can support existing local businesses and “maker” uses. This code is organized into four sections:

### Regulating Districts

define primary features of overall building form, including lot parameters, massing, height, and permitted uses. A regulating plan defines the regulating district designation and allowed height for each parcel. These regulating districts are established on the Kirkland Zoning Map and in the code. An example of the Commercial Mixed Use district is shown to the right.

Regulating District Example (Commercial Mixed Use)



### LOT COVERAGE AND SETBACKS

#### Permitted Uses

General Permitted Uses	Commercial, Institutional
------------------------	---------------------------

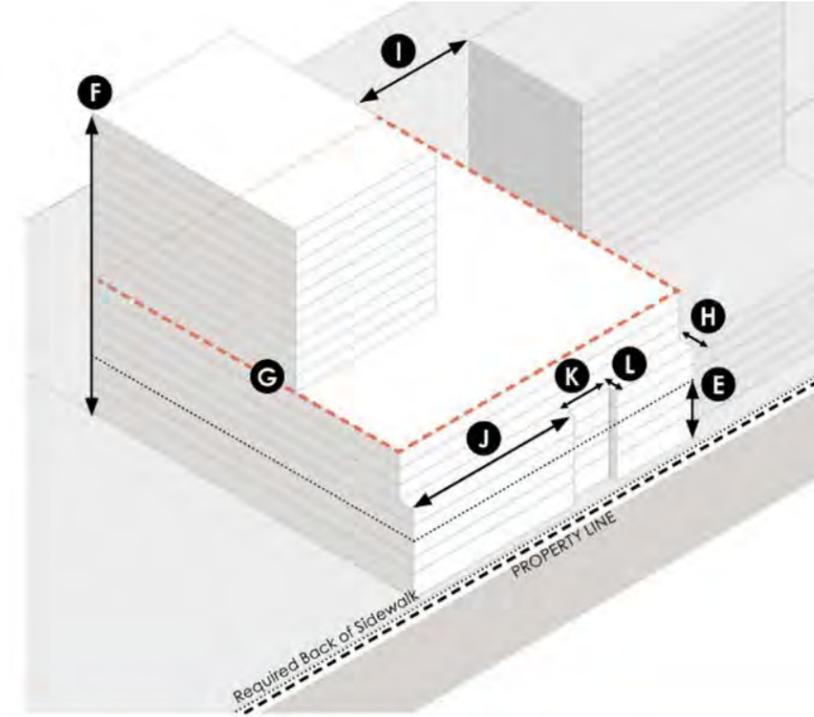
#### Lot Coverage

<b>A</b> Max Lot Coverage *	90%
-----------------------------	-----

#### Required Yards

<b>B</b> Front	Refer to Frontage Types
<b>C</b> Side	0' Min
<b>D</b> Rear	5' Min

\* Lot coverage as shown does not represent intended building placement or setbacks.



### MASSING AND DEVELOPMENT DENSITY

#### Height and Floor Area

<b>E</b> Base Maximum Allowed Height	Refer to Regulating Plan
<b>F</b> Bonus Maximum Allowed Height	Refer to Regulating Plan
<b>G</b> Maximum Floor Plate (per building)	Between 45'-75': 35,000 GSF Between 75'-125': 25,000 GSF Above 125': 20,000 GSF

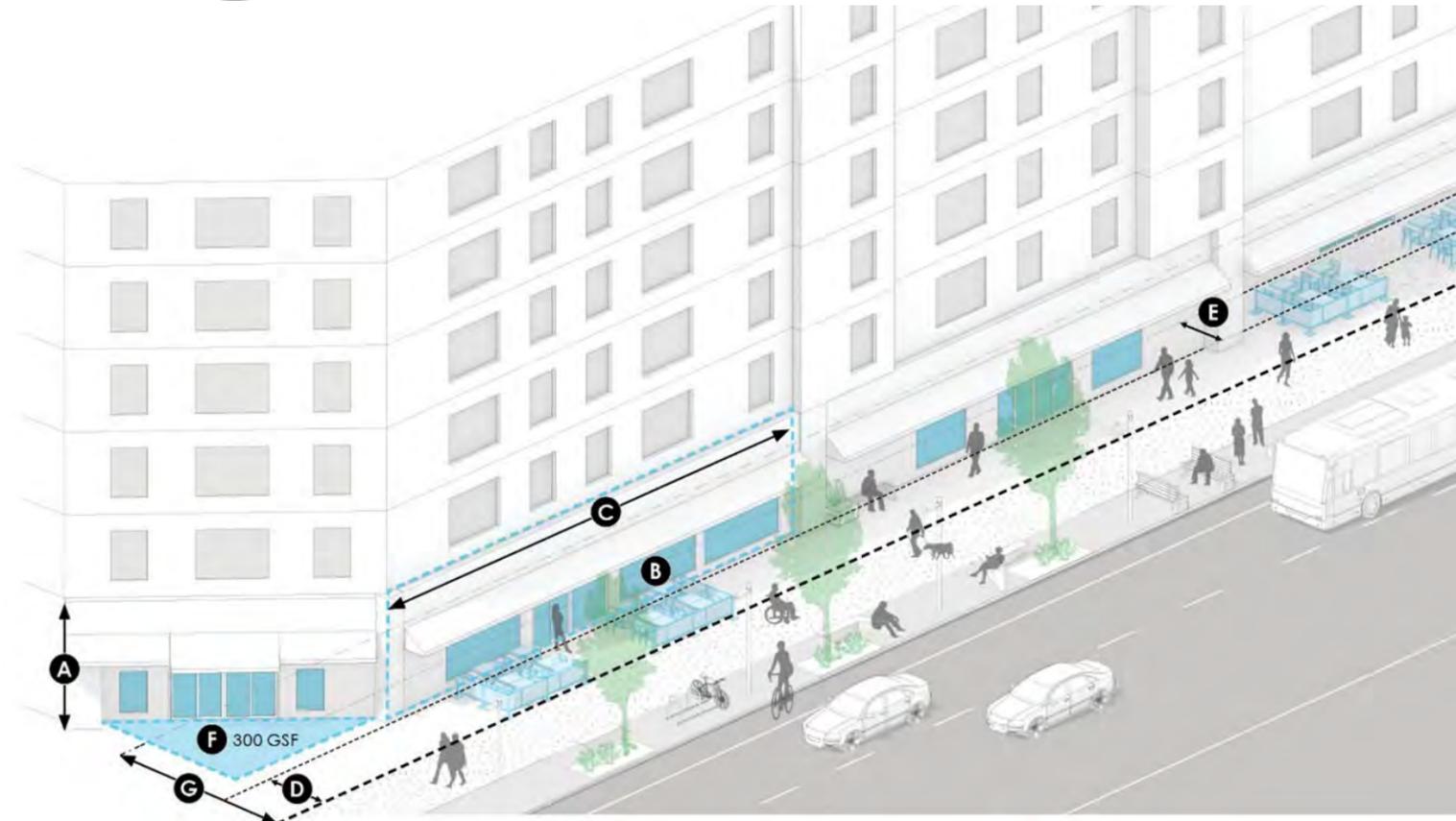
#### Setbacks and Tower Separation

<b>H</b> Upper Story Street Setbacks	At 75': 15' setback At 125': 30' setback
<b>I</b> Tower Separation	60'
<b>J</b> Maximum Facade Width	160'
<b>K</b> Minimum Facade Break Width	15'
<b>L</b> Minimum Facade Break Depth	5'

# Draft

## Frontage Types

Eestablish design regulations for private property frontages, including the required front setback and building base. Eligible frontage types are determined based on the adjacent street type for a subject property.



### GROUND FLOOR DESIGN AND ENTRY

Ground Floor Design	
A	Minimum Street Level Story Height 15'
B	Facade Transparency 75%
C	Max Street Level Facade Width 65'
Entrances	
Location	Required on primary street-facing frontage
Entry Transparency	80%

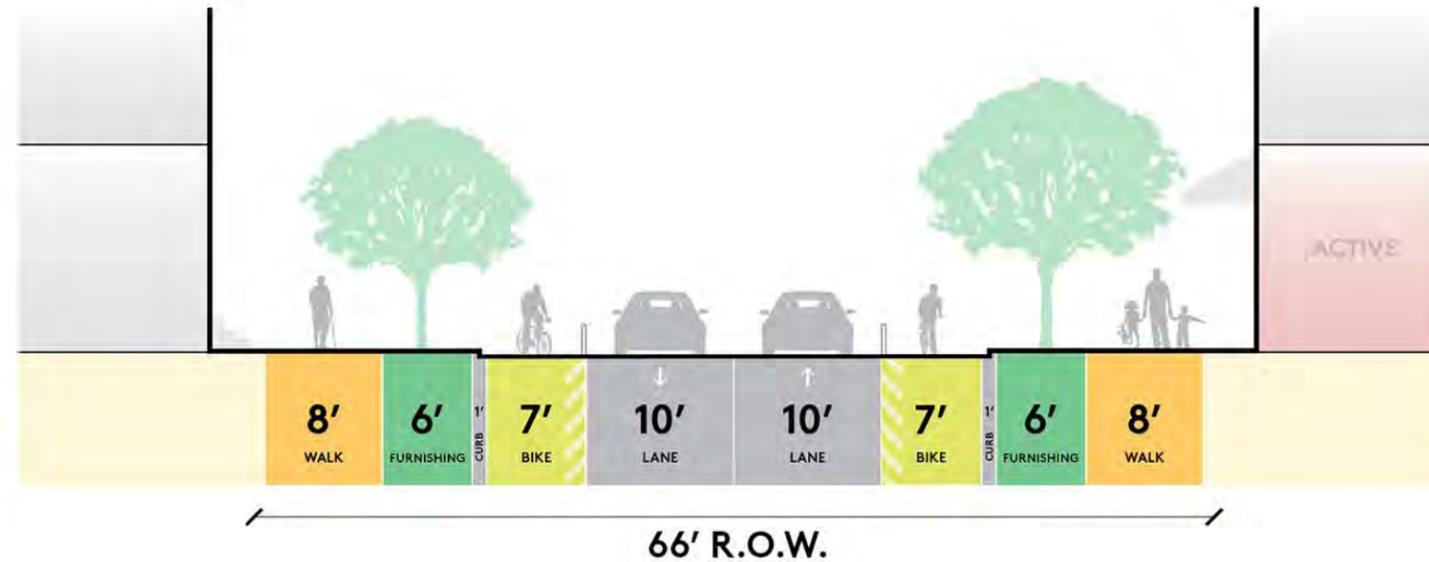
### PUBLIC REALM

Public Realm	
D	Front Setbacks (Min, Max) 0',15'
E	Sidewalk Cafes/ Amenity Zone Min depth 7', up to 10' additional setback allowed
F	Corner Design 300 GSF required within property line at corners where two intersecting streets are a combination of major thoroughfare, main street, or neighborhood mixed use
G	Ground Floor Parking Setback 25'

Frontage Type Example of Retail and Active Uses

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Street Types Example: (Neighborhood Mixed Use Street)



**Street Types**

Set the design intent for specific segments of public ROW, including functional classification, prioritized transportation modes, sidewalk and bikeway facility dimensions, and expected streetscape amenities like trees, planting, hardscape, and street furnishings.

**Description**

Neighborhood mixed use streets have low to mid-intensity commercial and residential, with occasional active ground floors. With generally lower vehicular volume than major thoroughfares, these streets require careful balancing among modes and should include wider sidewalks, buffered bike facilities, and narrower travel lanes.

**Permitted Frontage Types**

URBAN STREET EDGE	RETAIL & ACTIVE USES	RESIDENTIAL STOOP/PORCH	PLAZA/ PUBLIC SPACE	PRIVATE YARD
Permitted	Permitted	Permitted	Permitted	Permitted

**Functional Classes** Neighborhood Access

**Adjacent Land Uses** Low to mid-intensity commercial, residential, and occasional active ground-level uses, civic and urban flex uses

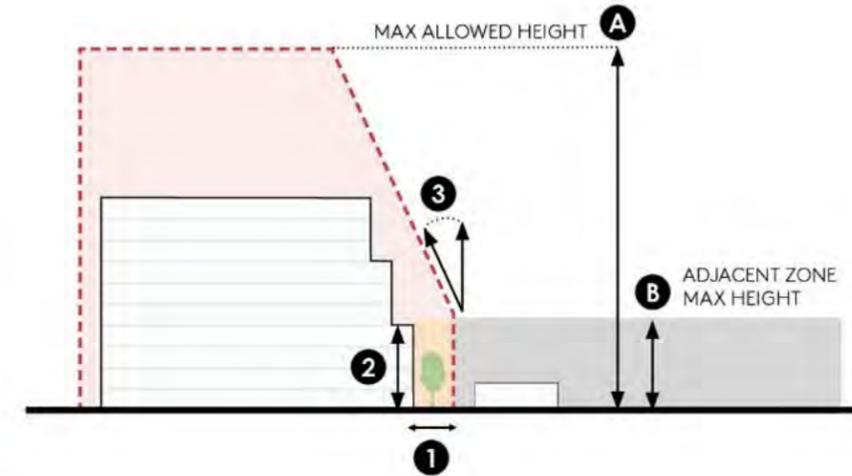
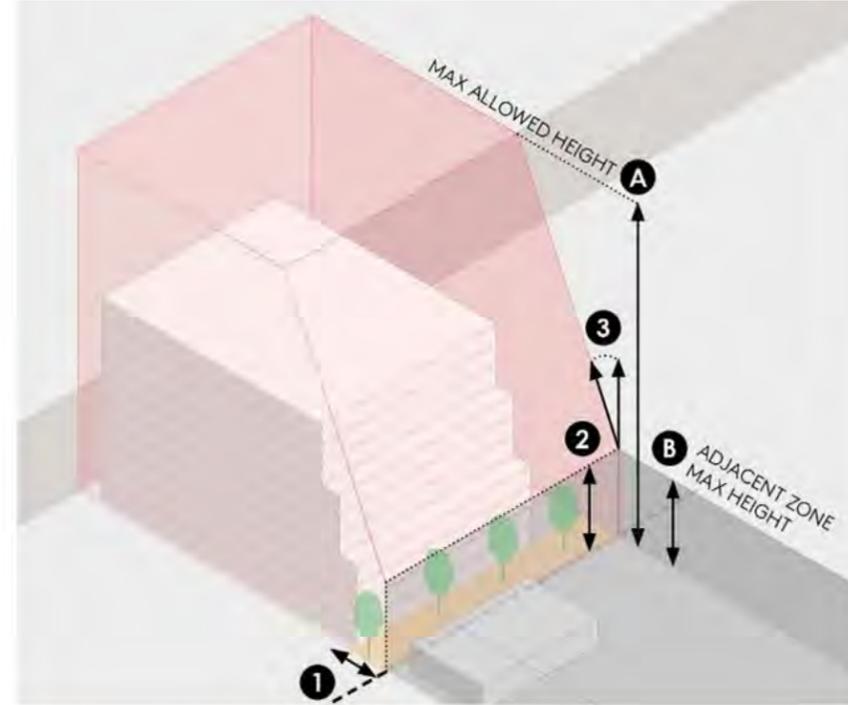
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## Districtwide Standards

Shown in the transitions example apply across the subarea, and include overall transitions, parking, plazas and public spaces, landscaping and open space, and sustainability and green innovation.

To use the code, an applicant first identifies the applicable regulating district for their property. Based on the street type designation for the parcel frontage, the applicant can choose from a set of eligible frontage types for that street type, as well as an understanding of the requirements for any improvements to the public right of way.

## Transitions Example



## TRANSITIONS

Applicability	<p><b>A</b> Transitions are required if the <b>allowed maximum height for the subject parcel</b> is greater than 30' above the <b>maximum allowed height for any adjacent parcel.</b></p> <p><b>B</b></p>
Requirement	<p><b>1</b> Create a vertical plane 15' away from and parallel to the common lot line.</p> <p><b>2</b> Establish a maximum height of the vertical plane that is equal to the midpoint grade elevation plus the maximum allowed height for the zone of the adjoining property.</p> <p><b>3</b> From the top of this vertical plane, extend a sky exposure plane at an angle of 25 degrees to the maximum allowed height of the subject property zone.</p>

# Draft

## Green Innovation

Within the Form-Based Code Districtwide Standards, a Green Innovation component has been included to ensure that new development is consistent with the vision of the NE 85th Street Station Area Plan Sustainability Framework as well as aligned with the Sustainability Master Plan. The document outlines several requirements in detail with the overarching subjects of:

- High Performance Buildings
- Energy and Decarbonization
- Ecosystems and Green Infrastructure

## Green Factor

The Green Factor is one of the primary tools that will be used to achieve the Ecosystems and Green Infrastructure goals at the project scale through building- and site-integrated green infrastructure. The Green Factor sets criteria for landscape and site-based sustainability measures. The landscape elements and benefits that are included in the Green Factor code will contribute to larger district sustainability goals focused on the natural environment, ecosystems, and stormwater.

## Green Factor Criteria

1 LANDSCAPE ELEMENTS	
A	Bioretention facilities and/or soil cells
B	Structural soil systems
C	Landscape areas with soil depth less than 24"
D	Landscape areas with soil depth of 24" or more
E	Preservation of existing trees
F	Preservation of Landmark trees bonus
G	Preservation of exiting evergreen trees bonus
H	Groundcovers or other low plants
I	Medium shrubs or perennials
J	Large shrubs or perennials
K	Small trees with 500 ft <sup>3</sup> soil volume
L	Medium trees with 1000 ft <sup>3</sup> soil volume
M	Large Trees with 1500 ft <sup>3</sup> soil volume



2 GREEN ROOFS	
A	Area planted with at least 2" but less than 4" of soil
B	Area planted with at least 4" but less than 8" of soil
C	Area planted with at least 8" but less than 30" of soil
D	Area planted with trees and least 30" of soil

3 GREEN WALLS	
A	Facade or wall surface onobstructed with vines
B	Facade or wall surface planted with a green wall system

4 LANDSCAPE BENEFITS	
A	Landscape areas in food cultivation
B	Landscape areas with native or drought tolerant plants
C	Landscape areas at sidewalk grade where the majority of the area is covered with vegetation that is native or drought tolerant, and/or provides habitat for urban wildlife and pollinators
D	Rainwater harvesting
E	Planting that provides food, forage and refuge for a diversity of species and/or inclusion of habitat elements such as woody debris, gravel/cobble, nesting materials, etc.

5 PERMEABLE PAVING	
A	Permeable paving over 6"-24" soil or gravel
B	Permeable paving over at least 24" of soil or gravel

# 8.0 Draft

## Parks, Open Space & Environment —

# Draft

## Parks, Open Space & Environment Concepts and Goals

Open space within the Station Area will provide multiple benefits for employees, visitors, and residents living in and around the Station Area and these spaces will be critical in supporting growth in a way that aligns with the goals of the Parks, Recreation and Open Space Plan and the Sustainability Master Plan. Open Space strategies within the larger Station Area should respond to the character and scale defined for each of the Character Subareas and respond specifically to the environmental conditions of their watersheds (Moss Bay and Forbes Creek). Multi-benefit strategies should be a part of all new and existing open space enhancement opportunities, serving functions of active/passive recreation, flexible use open space, and environmental functions like stormwater management, carbon sequestration, air quality, and urban heat island mitigation.

Within the Station Area, open space opportunities include: the creation of urban linear parks, pocket parks, and plazas, rooftops and mid-block connections, passive and active recreational parks, and enhancements to existing parks and open space. Within these spaces, sustainability goals are promoted by prioritizing the use of large canopy trees, a diverse plant pallet of species that are native, drought tolerant and provide habitat such as food, forage, and refuge, and the integration of stormwater management. Management of Kirkland’s urban forest resource for optimal health, climate resiliency and social equity will be important in creating new open spaces.

New development within the Station area should be encouraged to provide publicly accessible parks and sustainability components at ground level or at upper-level portions of the site, while considering opportunities to replace tree canopy to support ecological goals by adding new trees and habitat with plantings wherever gaps exist. Enhancing publicly owned land to support open space objectives with improvements to provide open space and recreational amenities and explore potential partnerships for shared use agreements to support recreational uses. These actions will help to contribute to the overarching goal to provide all areas within the Station Area a park or open space within a 15-minute walk. Coordination with the PROS Plan on how park LOS is defined in more urban areas of the City that moves toward equitable park access within walking distance and away from a per acre approach should be considered to more broadly leverage green infrastructure to create more open space, educational and environmental opportunities.



# Open Space Framework

# Draft



### Open Space Typologies: Characteristics

Open space opportunities will arise through public projects and with private development throughout the Station Area. Several varying typologies have been identified in the table below which can supplement and enhance private development while improving the open space network already in existence. As more development occurs and jobs and housing increase, so will the amount of open space. City of Kirkland staff will work with the development community as projects arise to fulfil the appropriate scale and type of open space to enhance the overall park and public realm system.

The following table describes twelve (12) open space typologies with siting criteria, approximate sizing requirements, programming potential and some example project opportunities.



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Open Space Typology	Siting Criteria	Sizing Range	Example Typical Program / Features	Example Opportunities within Study Area
1. Linear Open Space Along Trail	To be located in dense areas linking major urban nodes.	Minimum size of 15,000 s.f.	<ul style="list-style-type: none"> <li>Lighting</li> <li>Landscaping</li> <li>Seating</li> </ul>	Developer improvements along Cross Kirkland Corridor (CKC) or Trail connections to transit stops along NE 85th Street and the BRT station
2. Pocket Park	Within tightly spaced urban fabric where accommodating larger open space is difficult, or where open space is needed in areas with limited access to park spaces.	Minimum size 10,000 s.f.	<ul style="list-style-type: none"> <li>Hardscape</li> <li>Trees</li> <li>Seating</li> <li>Art</li> </ul>	Pocket park within dense commercial district
3. Active Recreation Spaces	Consider in areas where programming is lacking.	Playground minimum of 5,000 s.f. / Pickleball minimum of 7,500 s.f.	<ul style="list-style-type: none"> <li>Playground</li> <li>Exercise Equipment</li> <li>Pickleball / tennis / Courts</li> <li>Dog Parks and Dog Runs</li> </ul>	Pickleball Courts; playground or exercise equipment in pocket parks and/or linear open space
4. Community Gardens (small & rooftop ex.)	Consider rooftops and temporary surface parking lots.	Varies on context	<ul style="list-style-type: none"> <li>Planter beds</li> <li>Pollinator and bee habitat</li> </ul>	Surface parking lot potential; pocket parks; public plazas; private rooftops; publicly accessible rooftops
5. Rooftops with Public Viewpoint	Programming such as dog runs or playgrounds should be chosen in areas where a large proportion of families with young children live.	Playground minimum of 5,000 s.f.	<ul style="list-style-type: none"> <li>Playground</li> <li>Exercise Equipment</li> <li>Dog Parks and Dog Runs</li> </ul>	Potential for Playground or dog runs on top of residential rooftop within new commercial district zone.
6. Green Mid-block Connections	Sited within a travel corridor to maintain continuity for pedestrians and/ or cyclists. Or may exist adjacent to active frontages.	Varies on context	<ul style="list-style-type: none"> <li>Seating</li> <li>Elements of landscaping</li> <li>Water components</li> </ul>	Opportunities for east/west connections off 120th Main Street
7. Neighborhood Park	Should be sited near residential land use and provide adequate opportunity for a variety of program.	Minimum size of 2 acres	<ul style="list-style-type: none"> <li>Event Space</li> <li>Seating</li> <li>Elements of landscaping</li> </ul>	Enhance existing publicly owned parks and improve access to support open space objectives. Seek opportunities for community access to recreation assets, spaces, and facilities.
8. Community Park	Sited next to residential areas with access to pedestrian and bike paths. Large areas of managed landscape and opportunities for shade, program, refuge and impermeable surface.	Minimum size of 15 acres	<ul style="list-style-type: none"> <li>Community center</li> <li>Elements of landscaping</li> <li>Connections and walking/ cycling paths</li> </ul>	Enhance existing publicly owned parks and improve access to support open space objectives. Seek opportunities for community access to recreation assets, spaces, and facilities.
9. Plazas	Plaza will supply physical and visual access from the adjacent right-of-way. Support sense of security to users through well-lit and visible spaces.	Minimum size of 3,000 s.f.	<ul style="list-style-type: none"> <li>Seating</li> <li>Elements of landscaping</li> <li>Art</li> <li>Water components</li> </ul>	Norkirk Plaza at 7th Avenue and 112th St Ave NE; other examples could be larger-scale redevelopment in Station Area; coordination with corner treatments required in FBC
10. Tree Canopy and Habitat	Locate in areas where abundant natural light and limited infrastructure below grade is present to accommodate large soil volumes and trees. Seek opportunities to expand canopy and habitat, and bridge existing gaps.	-	<ul style="list-style-type: none"> <li>Landscaping</li> <li>Green infrastructure and stormwater features</li> <li>Nature trails</li> </ul>	Tree Nursery Opportunity
11. Unprogrammed Green Space	Opportunity to provide refuge and passive place to contemplate or simply enjoy nature, which may be sited within medium to lower scale density.	0.25 ac.	<ul style="list-style-type: none"> <li>Heavy vegetation</li> <li>Landscaping</li> <li>Seating</li> </ul>	Forbes Lake Park
12. Green Infrastructure and Stormwater with Open Space for People	Areas where extra water needs to be stored / contained or mitigated.	See standards	<ul style="list-style-type: none"> <li>Landscaping</li> <li>Green infrastructure and stormwater features</li> </ul>	Forbes Lake Park

# Draft

## Open Space Typology Examples

### Linear Open Space Along Trails

Linear Open Spaces along trails will be a minimum of 15,000 square feet and incorporate a variety of programs. Opportunities within the study area include developer improvements along the Cross Kirkland Corridor (CKC) and trail connections to transit stops along the 85th Street and BRT Station.



### Community Gardens

Community gardens are opportunities to provide planter beds for food cultivation and/or habitat for pollinator species and bees. They can be in surface parking lots as temporary programming, or in more permanent conditions such as on private rooftops, within pocket parks, public plazas and on publicly accessible rooftops.



### Pocket Parks

Pocket parks are opportunities to incorporate open space in dense, tight urban fabric with a minimum of 10,000 square feet. The commercial mixed use district could see potential for pocket parks given its density.



### Active Recreation

The types of active recreation programming is limitless and varied. Some example opportunities for the Station Area include pickleball courts, playgrounds, exercise equipment, and bocce ball courts.



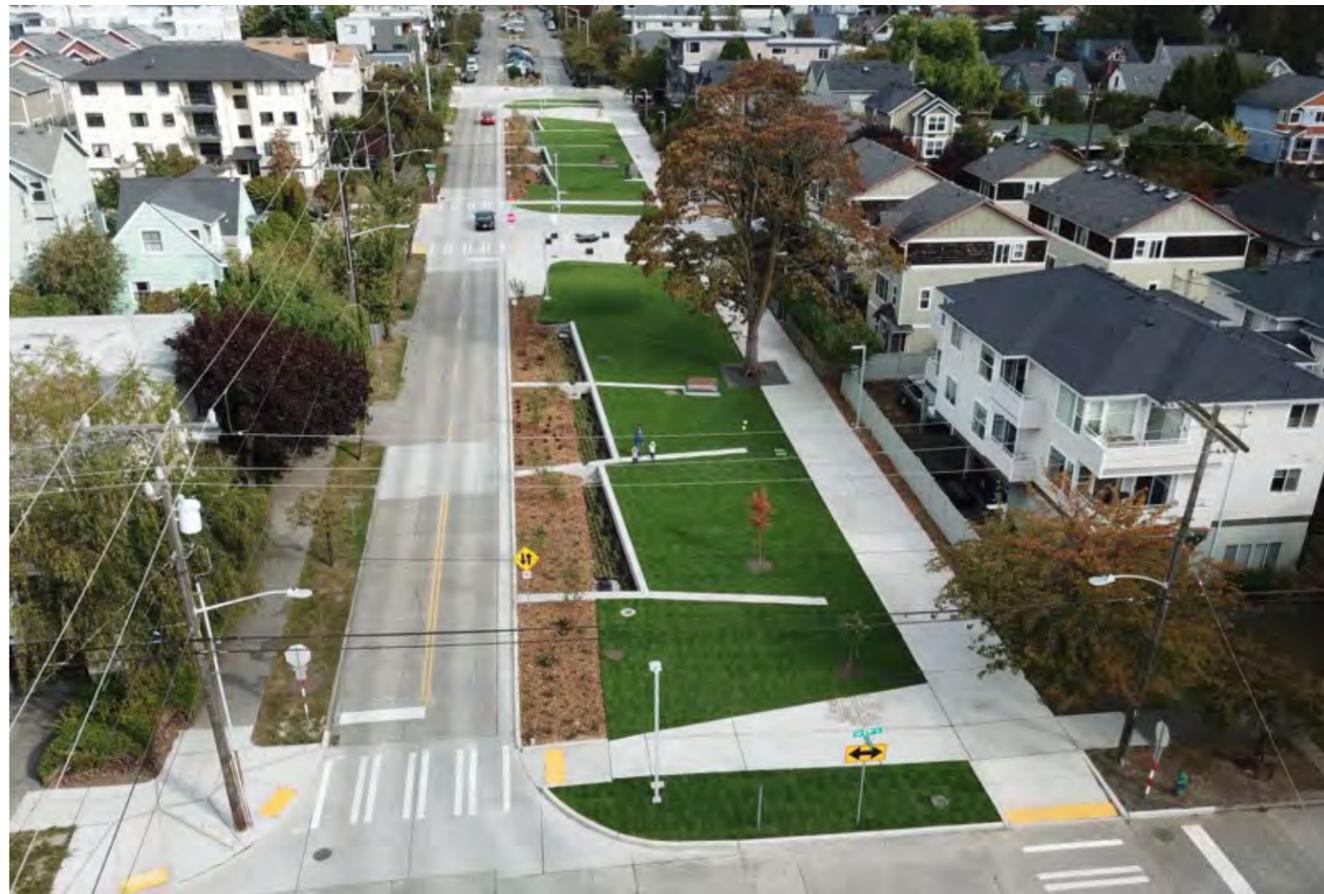
### Rooftops with Public Viewpoint Areas

Rooftops have a wide potential to create public amenity space whether it be on private rooftops, or publicly accessible ones. Potential for playgrounds within the new commercial district zone is possible, along with other programming including community gardens or dog parks.



### Green Mid-block Connections

Opportunities for east/west connections off of 120th Main Street are possible for green mid-block connections which can vary in size depending on its context.



### Neighborhood Park

New neighborhood parks should be a minimum of 2 acres in size. Existing neighborhood parks in and near the station area include Rose Hills Meadows Park and North Rose Hill Woodlands Park. Better connections to existing community parks will support open space objectives, and an inventory of existing publicly owned parcels within the station area should be completed to seek other opportunities.



### Community Park

New community parks should be a minimum of 15 acres. Existing community parks near the station area include Peter Kirk Park and Everest Park. The City currently has an agreement with Lake Washington High School for shared use of their fields and recreation facilities. Enhancements and better connections to existing community parks will support open space objectives, and an inventory of existing publicly owned parcels within the station area should be completed to seek other opportunities.



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### Plazas

Plazas are a minimum of 3,000 square feet, the future of the area could include a plaza at 7th Avenue and 112th St Avenue NE, a plaza at Bank of America at Lake Street and Kirkland Avenue and the plaza as part of Kirkland Urban's development.



### Tree Canopy and Habitat

Tree nursery opportunity within the area would provide greater tree canopy and habitat as well as serve a function for the Parks and Community Services Department.



### Unprogrammed Green Space

Passive, unprogrammed green space is important to a neighborhood to provide moments of refuge, contemplation, and true connection to nature. Areas of this nature should be a minimum of 0.25 acres and examples include Forbes Lake Park and the Kirkland Cemetery.



### Green Infrastructure and Stormwater With Open Space for People

Areas to store and contain extra water can be accomplished throughout the Station Area within a variety of scales. Forbes Lake Park will have the opportunity to accommodate green infrastructure and storm water while providing green space for people to enjoy.



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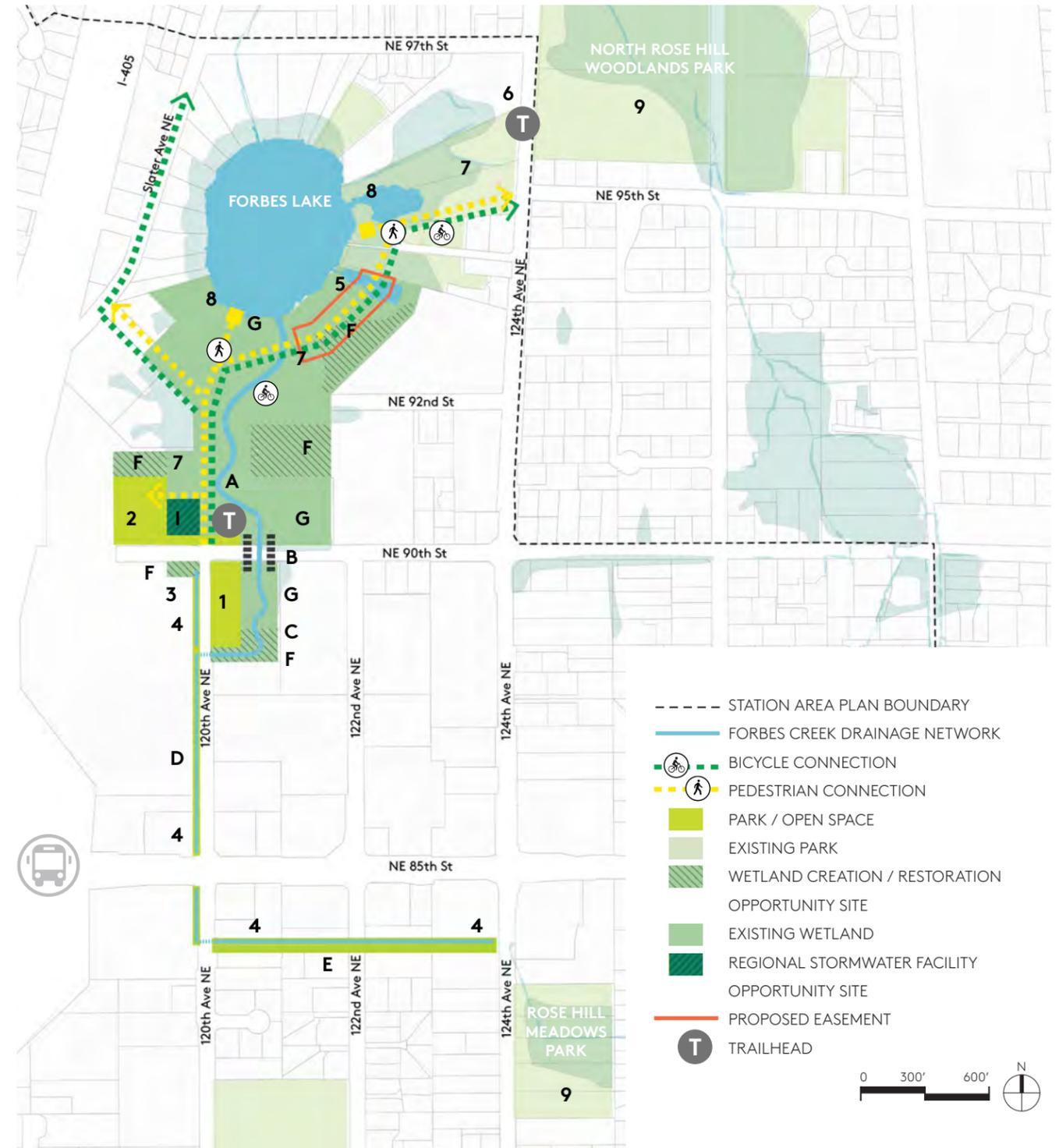
## Open Space Projects

### Forbes Lake Park

Preliminary planning to expand public open space and neighborhood connectivity near the City of Kirkland's Forbes Lake Park as part of the Station Area Plan has been explored. Existing protected critical areas, including Forbes Lake and associated wetlands and tributary drainages to Forbes Creek, including some piped conveyances, appear to restrict options for developing open space, however the attraction of these natural features provide opportunities for passive and active recreational public use and environmental education.

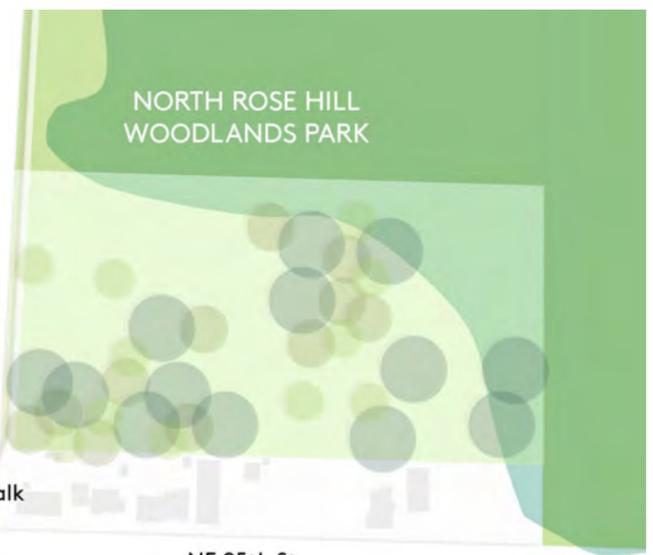
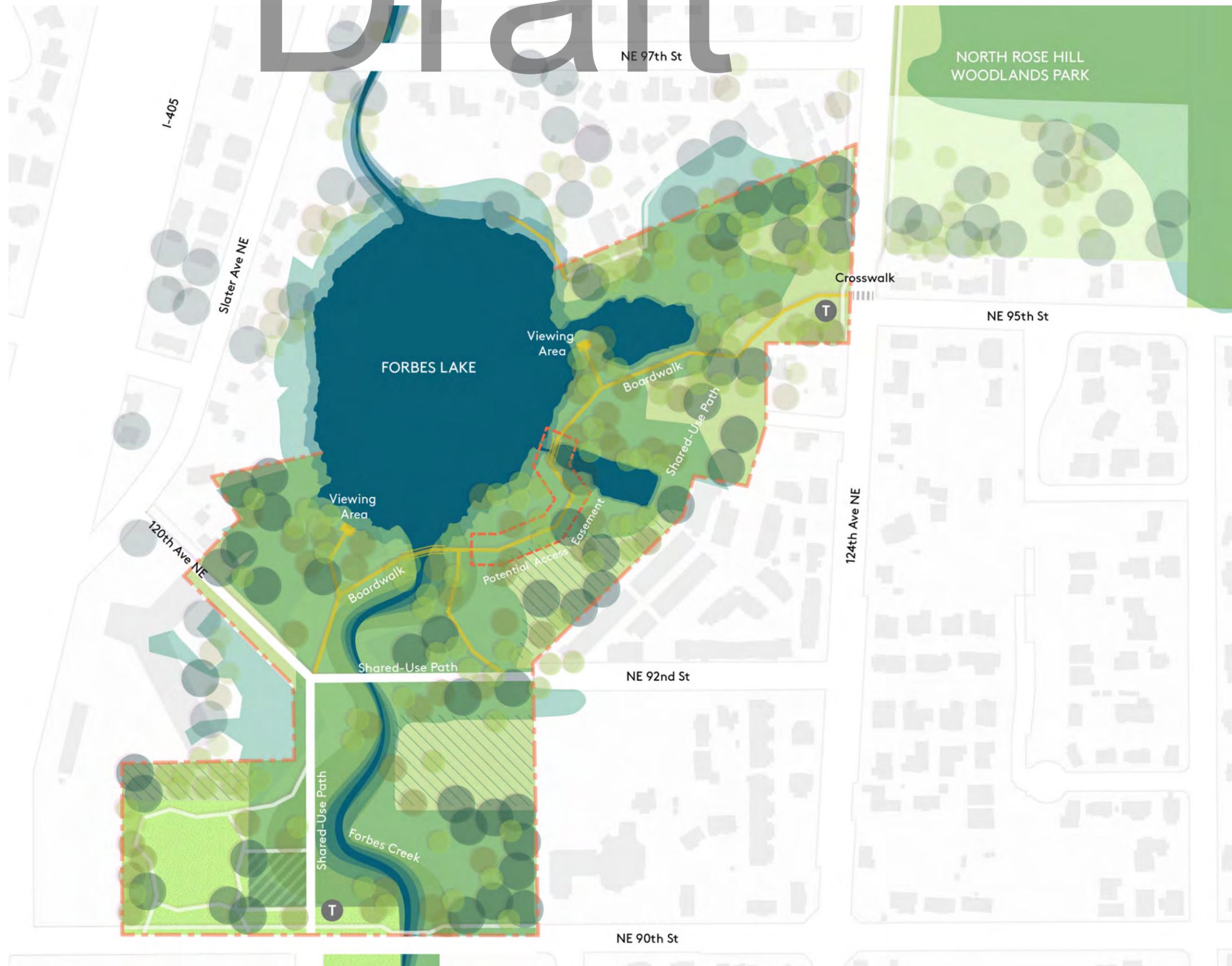
Forbes Lake Park is proposed to have a boardwalk that is a minimum of 10 feet wide to support two-way directional travel with open grate decking to avoid exceeding single threshold stormwater discharge. High Performance Bioretention Soil Mixture would likely be incorporated into Forbes Lake Parks to enhance overall water quality. The City encourages daylighting a stream that is located in a culver to restore it to a more natural open space with tree preservation and native buffer vegetation plantings. The purpose is to improve the values and functions of the stream, including maintaining water quality, reducing storm and flooding water flow, and providing wildlife habitat.

The proposed open space options have been selected to avoid and or minimize potential environmental impacts, as required for regulatory compliance and permitting by federal, state, and local agencies, as applicable.



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## Forbes Lake Park Detail



-  Park/Open Space
-  Regional Stormwater Opportunity Site
-  Wetland Creation/Restoration
-  Existing Wetland
-  Trailhead



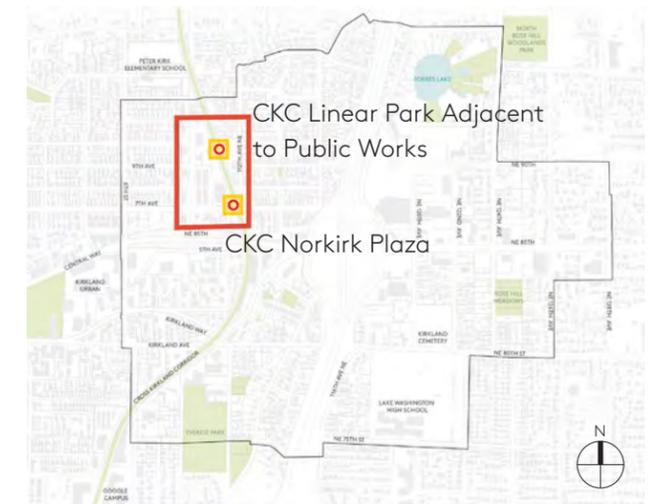
### Cross Kirkland Corridor Related Improvements at Norkirk Plaza and adjacent to Public Works Maintenance Center

The Cross Kirkland Corridor (CKC) Norkirk Plaza is located at the important intersection of 7th Avenue and 112 Street where bike focused infrastructure is envisioned to connect from the BRT pick up / drop off location to downtown. This concept builds on the CKC Master Plan vision and will support the creation of publicly accessible transit-oriented open space within the urban neighborhood. It is characterized by high quality landscape materials, pedestrian-oriented amenities like seating, and buildings that engage the open space.

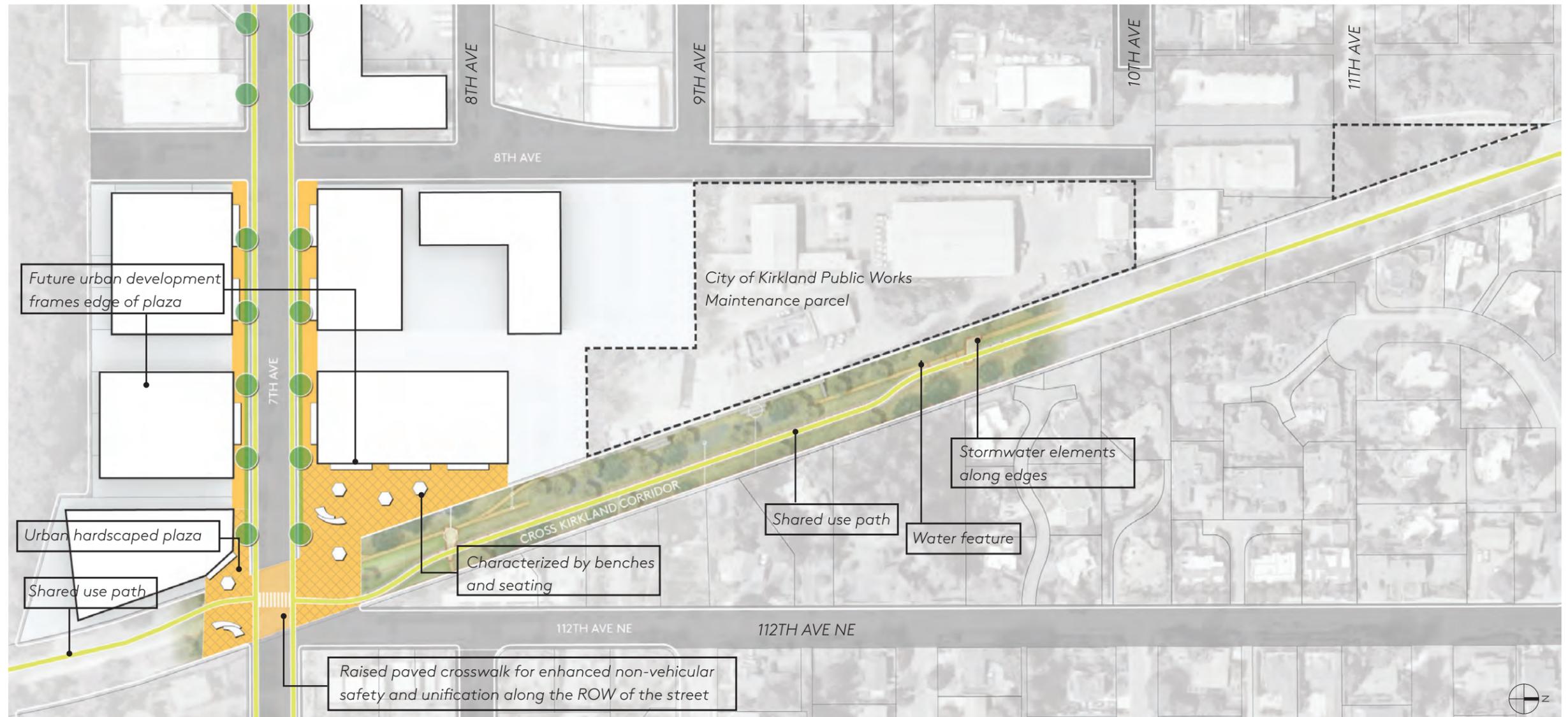
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Feriton Spur Park



Inset



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## 120th Ave NE Corridor

A refined corridor at 120th Ave NE serves as an important connection to Forbes Lake Park as well as Lake Washington High School. It will accommodate a place for both pedestrians with wide sidewalks, as well as cyclists with dedicated bicycle facilities avoiding shared bike/pedestrian routes where possible. Slow vehicle speeds with narrow travel lanes, smaller turning radii and other traffic calming measures are envisioned along the corridor. A strong public realm that focuses on the transitions for buildings and their relationship at the ground floor will be emphasized, and developments will be encouraged to include publicly accessible plazas and pocket parks along the 120th Ave NE frontage.

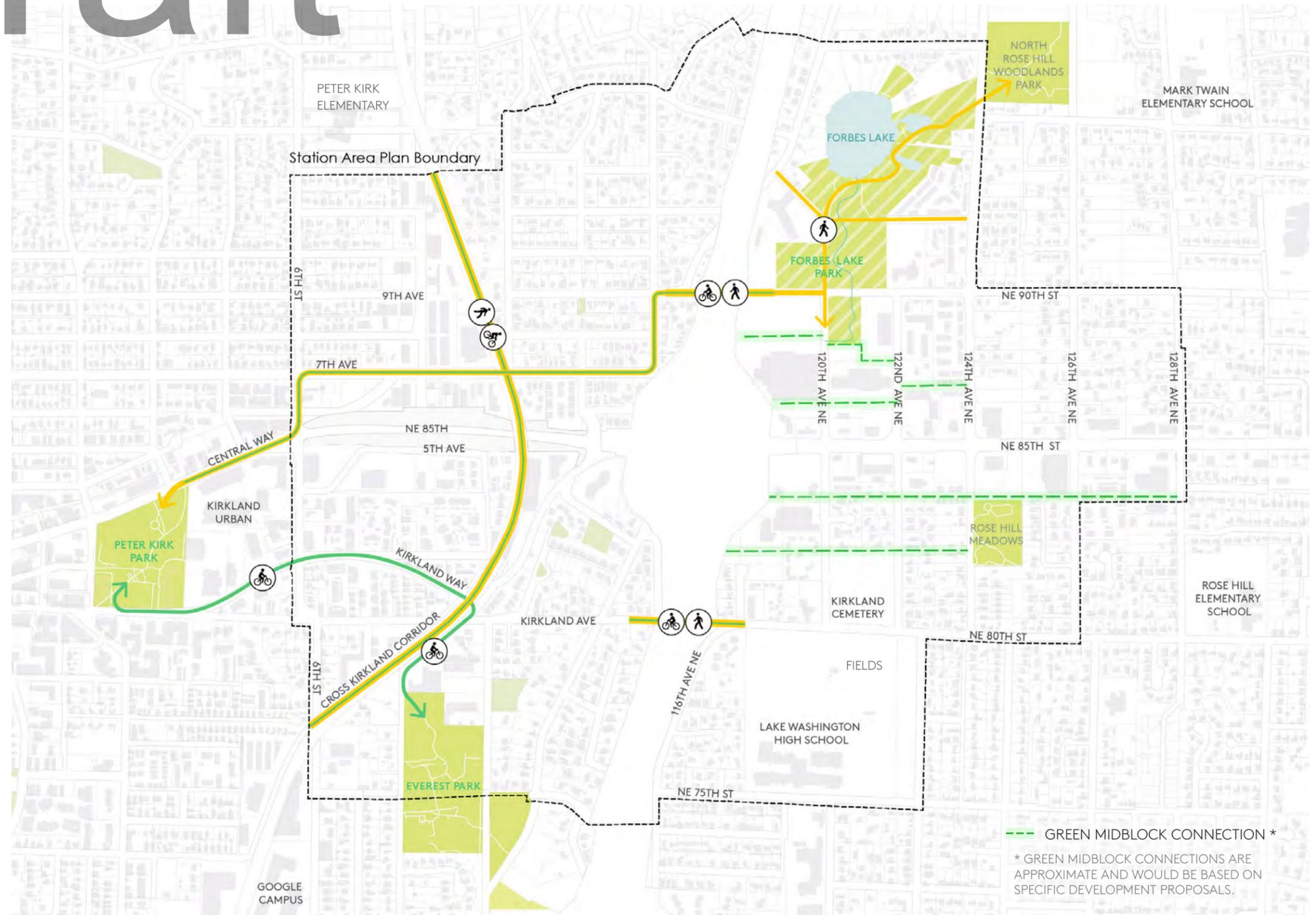


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## Enhanced Connections to Peter Kirk Park and Everest Park and Improvements

The planning process identified opportunities for enhanced connections to existing parks. These enhanced connections will improve access to parks, and creating connections from the Cross Kirkland Corridor to existing parks will help link together existing recreational spaces in, and close to, the district. Existing Community Park assets of Peter Kirk Park and Everest Park located just outside the Station Area and partially within the area respectively provide opportunities to enhance cycling routes to these community assets directly from the CKC. These connections provide gaps in the system in the south western area of the Station Area.

## Open Space Connections to Community Scale Parks



# 9.C Draft

## Transportation & Mobility —

# Draft

## Transportation and Mobility Concepts and Goals

The Station Area has served a crossroads for many years, as NE 85th Street, known as “Old Redmond Highway,” was the first paved highway on the eastside, and with its location up the hill from downtown, has been a natural place of connections for many generations, including the old rail corridor to points north and south.

Today, NE 85th Street continues to be an important connector from Kirkland to Redmond and other east side communities, and the interchange at I-405 provides regional north-south access. These highways have been designed to support throughput, moving people between places. Their scale, with NE 85th Street at nearly 100’ wide, and nearly ½ mile across the interchange, have a profound effect on the surrounding neighborhoods, creating physical and social barriers between the four quadrants. The current level of commuting and vehicular travel influences noise and air quality nearby; and development patterns to date are also auto oriented with large parking areas and very little space devoted to walking and biking.

The planned Stride BRT station and multi-modal access improvements present a significant opportunity and impetus to improve many of these conditions. As a transit-oriented community, the station area will accommodate a significant share of the City’s growth, in support of city and regional plans, and add more jobs to improve the balance of land uses in the area and the City as a whole. Together with multi-modal infrastructure and services, these plans will support a proactive shift toward a successful place that builds value for the city and community benefit, rather than a crossroads to pass through.

As a place to be, rather than to pass through, the Station Area will support and improve access to businesses, homes, schools, and open spaces. It will put people, bicyclists, and transit first, while maintaining a manageable level of vehicular traffic. Along with growth and development, the plan envisions more places for people to gather and spend time, in a lively public realm. The planned transportation improvements as a part of this effort have been designed to support a robust mobility network that bridges some of the existing barriers, increases network connectivity, and provides safe intersections and crossings.

### A Focus on Mobility

Main goals throughout this plan are to support mobility, to increase opportunities for people to walk, bike, and take transit to key services and destinations, and to manage vehicular congestion. Transportation analysis was conducted in coordination with The City of Kirkland to support their understanding of community benefits, tradeoffs, and fiscal impacts of different transportation alternatives for the I-405/NE 85th Street Station Area Plan (SAP).

Evaluation of traffic volumes, vehicle delay, and level of stress for walking and biking under both the existing conditions and with Station Area Investments were compared. Transportation investments and mitigations were identified and evaluated against existing conditions and no action alternatives. Additionally, a Travel Demand Modeling and Forecasting Study with the goal of identifying infrastructure and policies required to support achieving objectives related to:

- Sustaining the vehicle throughput functionality of NE 85th Street as a principal arterial while enhancing its role as an urban street
- Incorporate transportation improvements appropriate to surrounding land uses and densities
- Accommodating effective transit service within the study area along transit corridors
- Establishing low-stress, connected bike and pedestrian networks



# Draft

## NE 85th Concept



**LOW CARBON BUILDINGS**

**TREE CANOPY**

**AFFORDABLE HOUSING**

**ACTIVE STOREFRONTS**

**GREEN STREET INFRASTRUCTURE**

**ALL AGES BICYCLING NETWORK**

# Draft

## Mobility and Active Transportation

Ensuring a safe and pleasant network for walking, biking, and other active transportation options is critical to the success of the Station Area Plan and a priority for the City. The active transportation network includes a number of specific proposed concepts and projects. For this long-range plan, the City is targeting modal split goals for the station area of approximately 24% walk and bike trips, 29% transit/high-occupancy vehicle (HOV) trips, and 47% single-occupancy vehicle (SOV) trips. More information is below.

### Low Stress Bike Network

Throughout the district, a network of bikeways is intended to provide a low stress riding experience for cyclists. On streets with higher speeds and vehicle volumes, bikeways are separated from vehicles through grade separation, furnishing zones, parked cars, or striped buffers. On lower speed and lower volume streets, bikeway connections are provided through neighborhood greenways, which include signing, striping, and speed and volume controls to prioritize a street for walking and bicycling. This low stress bike network is supplemented by additional facilities such as bicycle parking and intersection improvements such as bicycle signals, green conflict markings, and refuge islands.

### Pedestrian Scaled Network

A complete network of pedestrian accessible routes is intended to support the vision of the station area as a walkable, urban district. This includes a mix of expanded or improved sidewalks, green midblock connections that provide access through otherwise large blocks, and public spaces like plazas and parks which can function as pedestrian pass-through routes.

### Additional Mobility Elements

In addition to these station area-wide improvements, a number of special elements are proposed. A set of new boardwalks will provide increased access around Forbes Lake. Trails are planned through the WSDOT interchange property at the current cloverleaf locations. A shared use bike and pedestrian connection along the south side of NE 85th St will connect the station to Downtown Kirkland.

## Future Auto Network

The plan recognizes the importance of NE 85th Street as a principal arterial, as well as the challenges of an incomplete network that result from existing barriers and large block sizes. The Preferred Plan includes a mix and distribution of growth and land uses to minimize substantial congestion impacts, which were studied through the EIS process and supplemental studies. The planned development intensity and mix of uses east of I-405 present a greater opportunity to reduce overall vehicular trips through transit-oriented development. Within the Station Area, transportation improvements emphasize increased functionality of the network for vehicles and reducing conflicts between vehicles and people walking or biking with safe crossings and other means.

### Supporting Transit

One of the main objectives for the project is to facilitate easy access and use of the future Stride BRT station. Envisioned as a transit-oriented community, the plan considers ways to complement existing local routes, as well as the efforts around the K line bus rapid transit plans. The plan includes complete street concepts for improvements to streets and greenways, and coordinates shared use trails and other connections between transit stations and key services and destinations. Analysis found that with planned growth, there may be a minimal travel time impact of 1-2 additional minutes on transit corridors within the station area. More information on this analysis follows.

### Parking

With plans to support more walking, biking, and transit use, the goal is to facilitate adequate parking needs and management for people who live, work, and visit the Station Area, while reducing the negative impacts of parking requirements to the area. Bike parking and electric vehicle / micro mobility parking is addressed in the Form Based Code. The following section on Transportation Demand Management (TDM) explores a few options to implement within the district.



## Active Transportation Plan Coordination

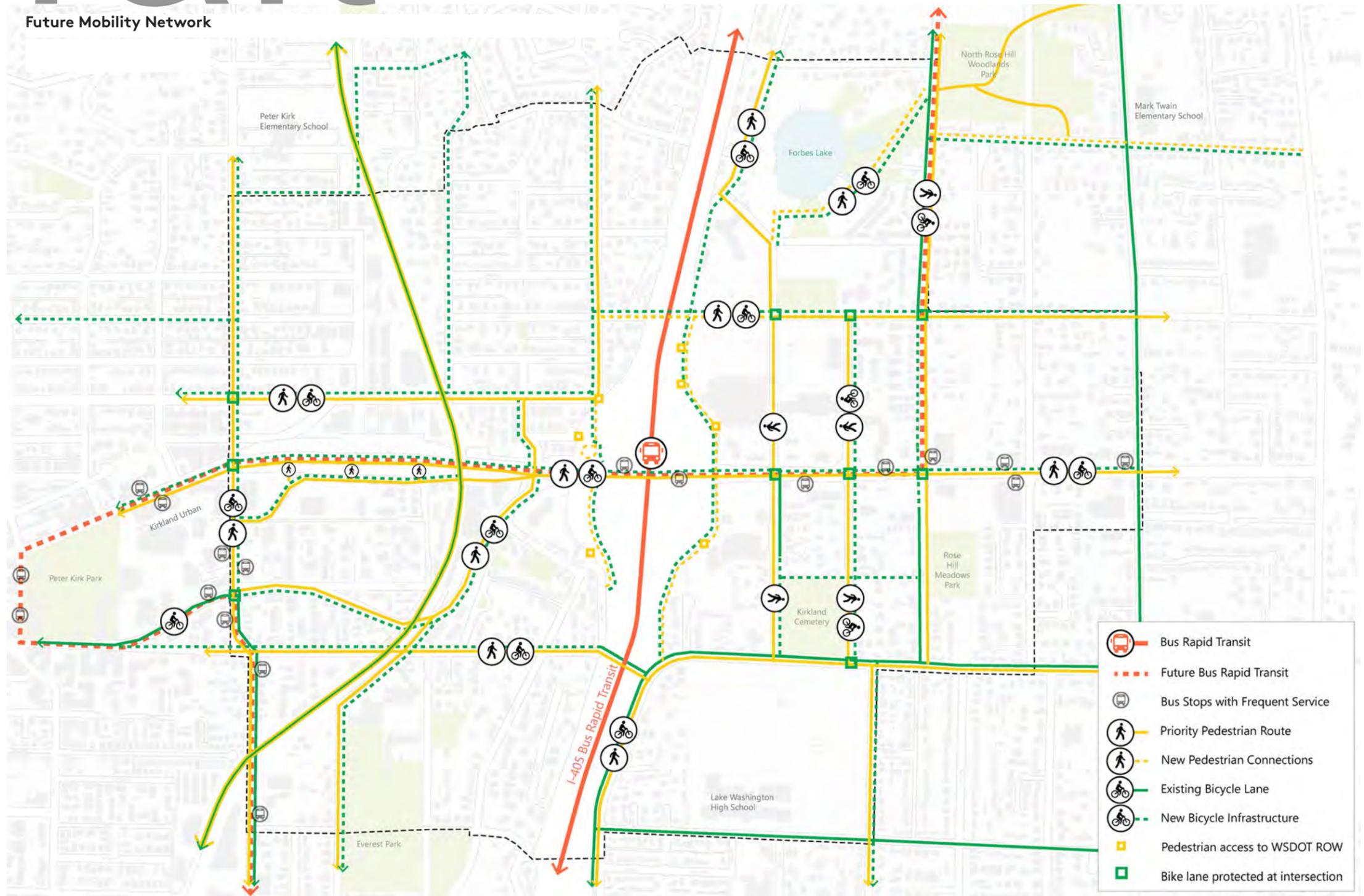
The Station Area Plan's transportation analysis and study has been running alongside the City of Kirkland's ongoing work with the Update to the Active Transportation Plan (ATP) which will be finalized in 2022. The update to the ATP reaffirms Kirkland's commitment to a multi-modal system of transportation choices by providing network and infrastructure improvement recommendations to enable people of all ages and abilities to safely walk, bike, and roll.

Specifically, the Active Transportation Plan outlines three main goals:

1. Create a safe, connected pedestrian network where walking is a comfortable and intuitive option as the first choice for many trips.
2. Create a connected bicycle network that accommodates people of all ages and abilities to get to destinations such as activity centers, parks, and transit.
3. Encourage and incentivize more people to walk and bike and encourage safe behavior for all users of the transportation system.

Network recommendations made as part of the ATP update have been incorporated into the active transportation network vision for the Station Area Plan.

# Draft



Sources: Station Area plan projects, Active Transportation Plan

## Mobility and Modal Split Goals

Travel demand management (TDM) strategies suitable for the station area were analyzed with the Preferred Plan growth as part of the 2021 Fiscal Impacts and Community Benefits Study.

With the recommended strategies in place, the analysis estimated a possible 13% reduction in single-occupancy vehicle (SOV) and high-occupancy vehicle (HOV) trips, translating to a 31% increase in the number of transit, walk and bike trips. Overall, the analysis estimated that the number of trips made by SOV could decrease by 7%, by HOV could decrease by 2%, and by transit and walk/bike could increase by 4% and 6% respectively. Mode share trips utilized number of person trips and modal percentages for each quadrant of the study area and estimated using information from the Bellevue-Kirkland-Redmond (BKR) travel demand model and the Puget Sound Regional Council (PSRC) regional travel demand model. The initial number of PM peak hour vehicle trip generated by the project were calculated using Fehr & Peers' MainStreet tool, with built in estimates for dense urban environments.

Based on analysis and a comparison of existing modal splits and targets in other areas, the City is targeting modal split goals for the station area of approximately 47% SOV, 29% HOV/Transit, and 24% walk and bike trips. TDM programs are successful when they are enforced within developments. Implementation and monitoring will be critical to the success of this target mode share in Kirkland.

Additional mitigation measures could be considered to expand TDM strategies including:

- Unbundle parking to separate parking costs from total property cost, allowing buyers or tenants to forgo buying or leasing parking spaces if they do not park a car.
- Revise parking code to reduce the amount of parking new developments must provide.
- Implement managed on-street parking strategies (e.g., designate special use zone for activities such as loading/unloading or emergencies)
- Require new development to charge for parking off-street.
- Encourage or require transit pass subsidies from developers/property owners.
- Utilize a Ridematch Program to assist potential carpoolers in finding other individuals with similar travel routes.

## Supporting the Future Transit Network

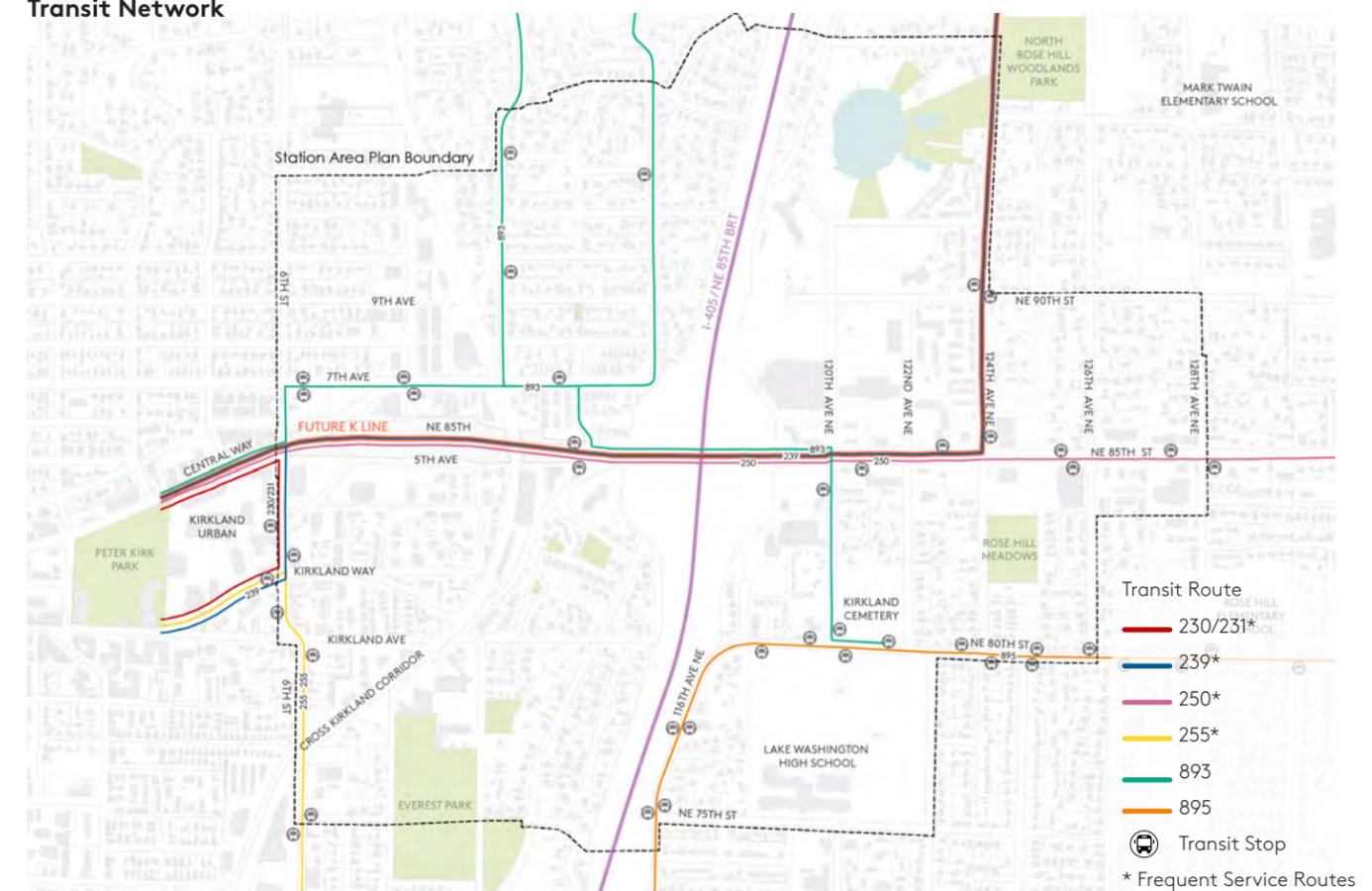
Three primary elements to understand potential change to transit conditions under the different land use alternatives are: passenger loads, speed and reliability, and access to transit. Two routes were evaluated to estimate how travel times for transit vehicles might change from existing conditions to 2044 conditions under the 2044 Preferred Alternative for the Station Area Plan. The two routes are:

- Along NE 85th St between 128th Ave NE and 6th St (Route 250)
- Along NE 85th St and 124th Ave NE between NE 90th St and 6th St (Route 239 and K-Line)

Analysis shows that projected overcrowding of buses will impact many transit routes within the Study Area. Delay at many intersections along NE 85th Street may slow down transit by 1-2 minutes according to a study done by transportation consultant Fehr and Peers (see Appendix) on point to point analysis, not the full route. This delay may reduce reliability of service. Currently, a queue jump is being planned at NE 85th Street and 6th Street to improve transit operations. Improvements to enhance access to transit include:

- Construction of shared use trail connections to transit stops along NE 85th Street and the BRT station.
- Sidewalks will be widened along 85th street throughout the SAP.
- Complete street and greenway improvements on key routes accessing transit stops along 85th Street and the BRT station, including 5th avenue, 7th avenue/NE 87th Street, 116th Avenue, and 90th Street.
- Dedicated bus lanes from 114th to east of interchange
- Initial planning and conceptual design efforts are beginning for the future K-Line BRT

### Transit Network



## Street Types

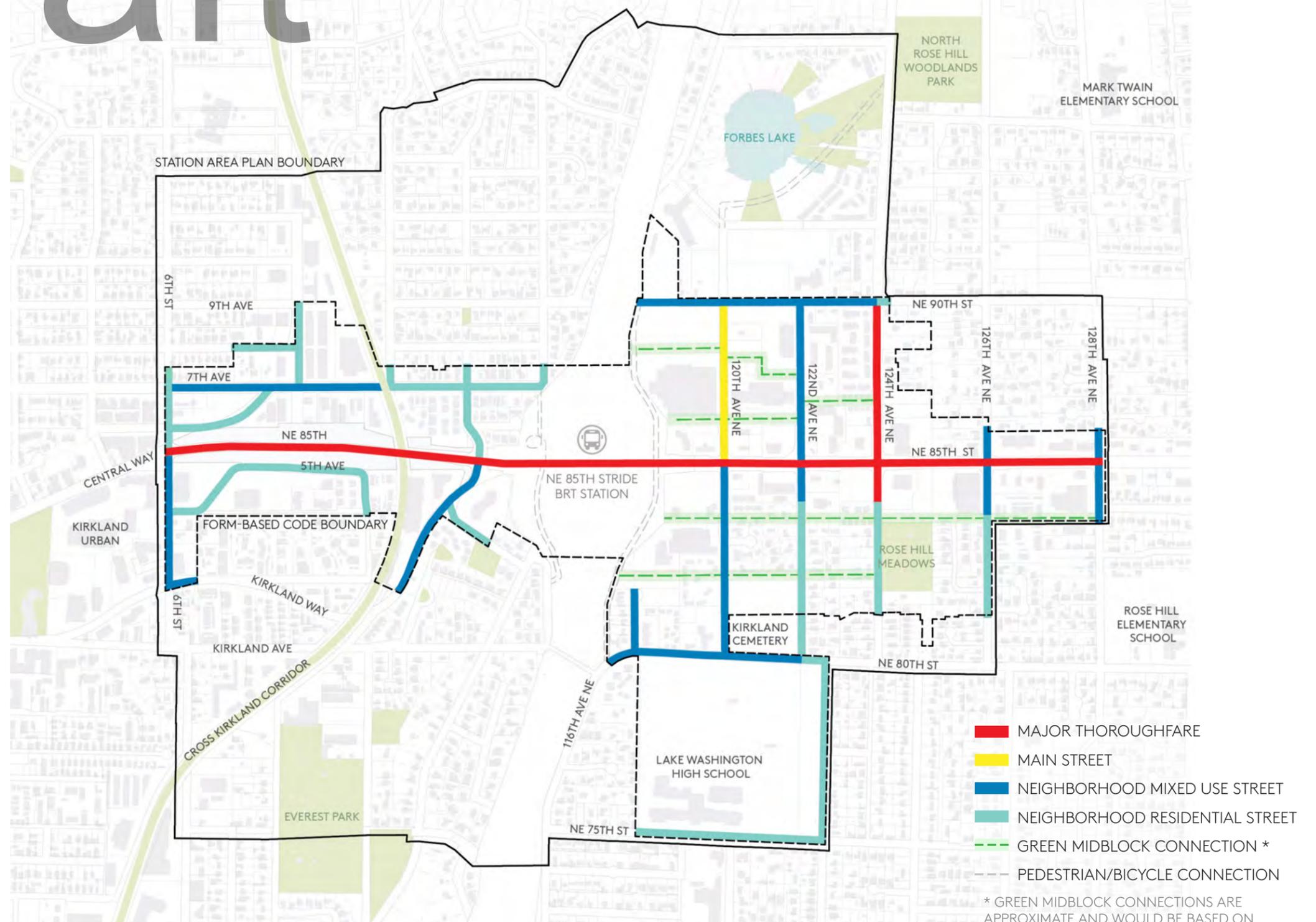
Street improvements are designed to accommodate all modes of travel, support a pleasant and safe public realm, and support the homes, businesses, and community places within the Station Area.

Improved sidewalks and dedicated bikeways ensure that walking and biking in the station area is safe and pleasant. Capacity is added to key intersections on major arterials through strategic widening and signal operation changes to avoid gridlock. These improvements are linked to overall urban design and mobility goals for each corridor.

Street Types set the design intent for specific segments of public ROW, including functional classification, prioritized transportation modes, sidewalk and bikeway facility dimensions, and expected streetscape amenities like trees, planting, hardscape, and street furnishings. They are addressed in the Form Based Code and illustrated in the following sections.

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## Street Types Plan



Note: only areas within THE FORM-BASED CODE BOUNDARY have a street type assigned. this does not preclude additional PEDESTRIAN/BICYCLE improvements.

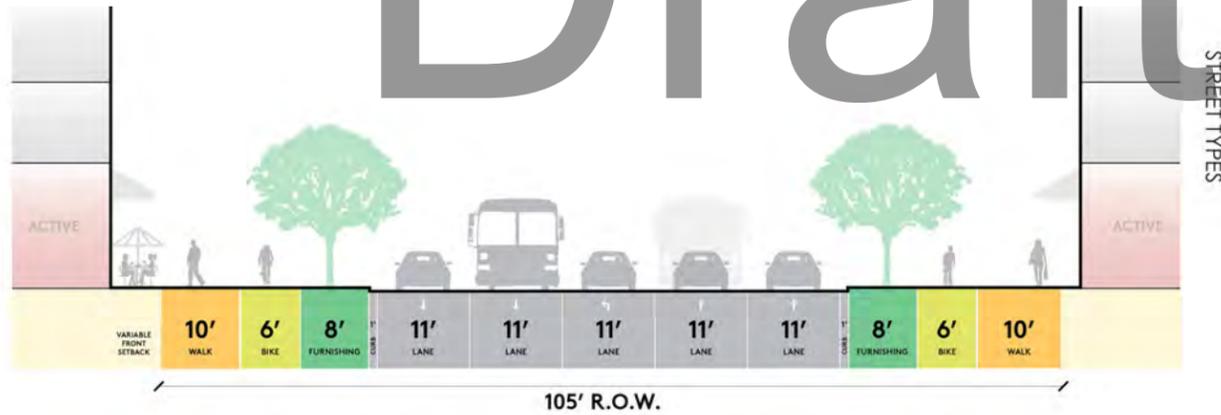
- MAJOR THOROUGHFARE
- MAIN STREET
- NEIGHBORHOOD MIXED USE STREET
- NEIGHBORHOOD RESIDENTIAL STREET
- GREEN MIDBLOCK CONNECTION \*
- PEDESTRIAN/BICYCLE CONNECTION

\* GREEN MIDBLOCK CONNECTIONS ARE APPROXIMATE AND WOULD BE BASED ON SPECIFIC DEVELOPMENT PROPOSALS.

# Draft

## Street Type Sections

### Major Thoroughfare



#### Description

Major Thoroughfares are streets that connect regional centers or pass through central commercial corridors. Many of these streets have significant traffic volumes at peak hours, and are key places for high-capacity transit routes, separated bike facilities, and wider sidewalks.

#### Permitted Frontage Types

URBAN STREET EDGE	RETAIL & ACTIVE USES	RESIDENTIAL STOOP/PORCH	PLAZA/PUBLIC SPACE	PRIVATE YARD
Permitted	Permitted	Not Permitted	Permitted	Not Permitted

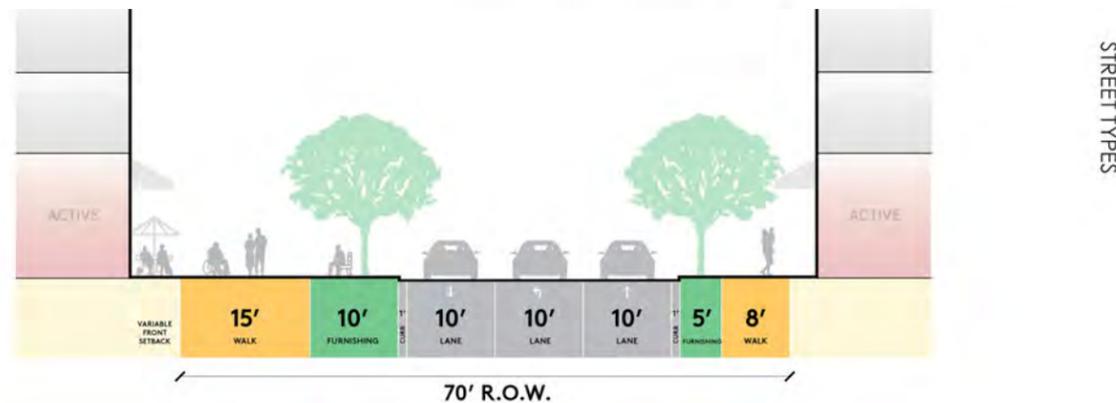
#### Functional Classes

Principal Arterial

#### Adjacent Land Uses

High intensity commercial, residential, and active ground-level uses.

### Main Street



#### Description

Main Streets are primary pedestrian corridors with active uses and generous sidewalks. They feature high quality streetscapes with linear open space, decorative paving, and tree canopy. These are often important corridors for transit or supported with transit nearby.

#### Permitted Frontage Types

URBAN STREET EDGE	RETAIL & ACTIVE USES	RESIDENTIAL STOOP/PORCH	PLAZA/PUBLIC SPACE	PRIVATE YARD
Permitted	Permitted	Not Permitted	Permitted	Not Permitted

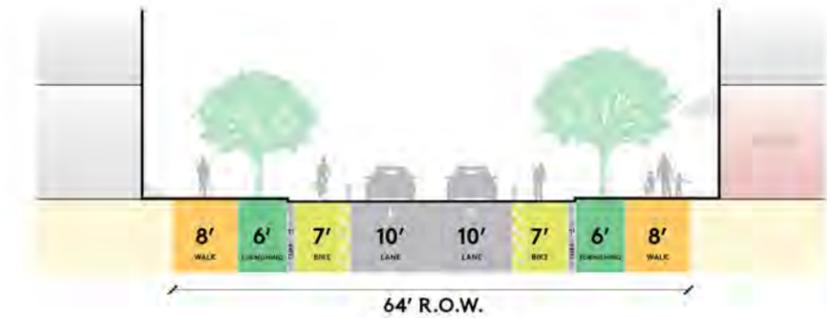
#### Functional Classes

Minor Arterial, Collector

#### Adjacent Land Uses

Mid to high intensity commercial, residential, and ground-level retail uses.

### Neighborhood Mixed Use Street



#### Description

Neighborhood mixed use streets have low to mid-intensity commercial and residential, with occasional active ground floors. With generally lower vehicular volume than major thoroughfares, these streets require careful balancing among modes and should include wider sidewalks, buffered bike facilities, and narrower travel lanes.

#### Permitted Frontage Types

URBAN STREET EDGE	RETAIL & ACTIVE USES	RESIDENTIAL STOOP/PORCH	PLAZA/PUBLIC SPACE	PRIVATE YARD
Permitted	Permitted	Permitted	Permitted	Permitted

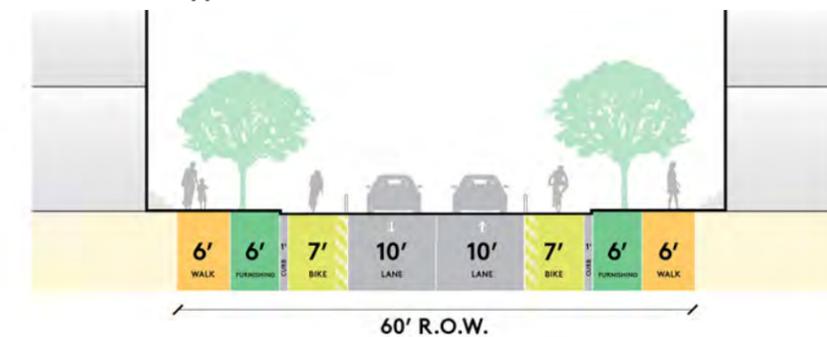
#### Functional Classes

Minor Arterial, Collector, Neighborhood Access

#### Adjacent Land Uses

Low to mid-intensity commercial, residential, and occasional active ground-level uses, civic and urban flex uses.

### Neighborhood Residential Street Type 1



#### Description

Neighborhood residential streets are low vehicular traffic volume streets that have primarily residential frontages and dedicated bicycle facilities.

#### Permitted Frontage Types

URBAN STREET EDGE	RETAIL & ACTIVE USES	RESIDENTIAL STOOP/PORCH	PLAZA/PUBLIC SPACE	PRIVATE YARD
Not Permitted	Not Permitted	Permitted	Permitted	Permitted

#### Functional Classes

Collector, Neighborhood Access

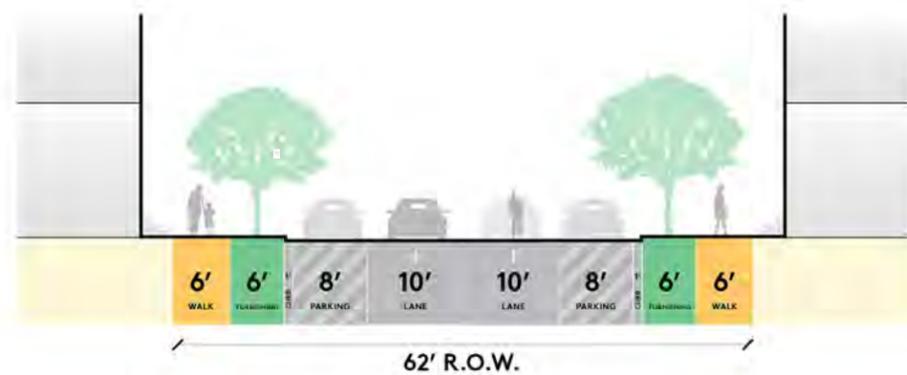
#### Adjacent Land Uses

Predominantly low to medium intensity residential uses.

# Draft

## Street Type Sections

### Neighborhood Residential Street Type 2



#### Description

Residential-focused streets with low vehicular traffic volumes, which can accommodate shared bike facilities.

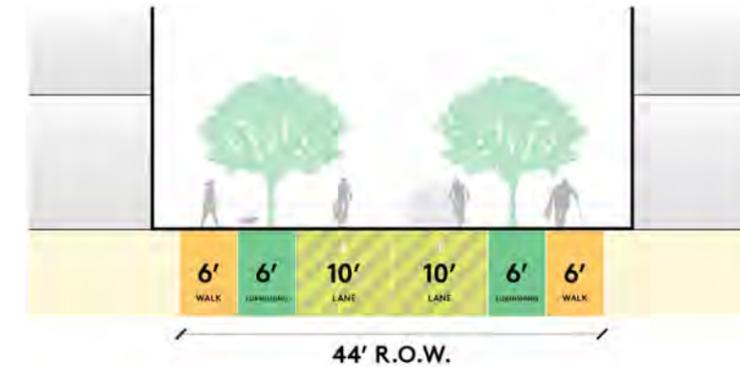
#### Permitted Frontage Types

URBAN STREET EDGE	RETAIL & ACTIVE USES	RESIDENTIAL STOOP/PORCH	PLAZA/PUBLIC SPACE	PRIVATE YARD
Not Permitted	Not Permitted	Permitted	Permitted	Permitted

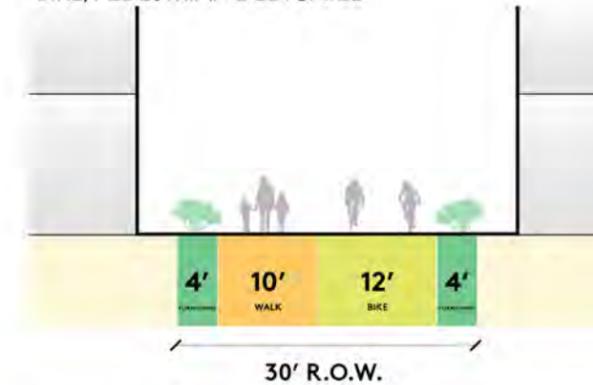
**Functional Classes** Neighborhood Access

**Adjacent Land Uses** Predominantly low to medium intensity residential uses.

### Green Midblock Connection



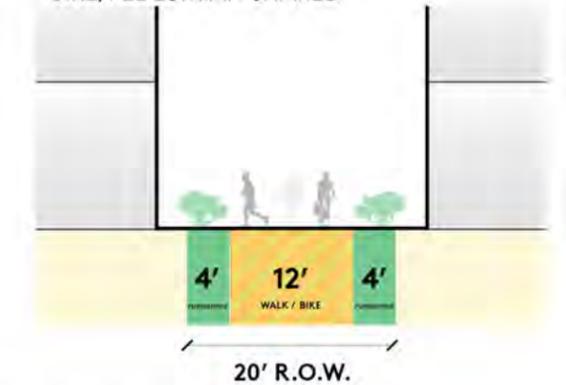
#### BIKE/PEDESTRIAN DEDICATED



#### Description

These streets are generously landscaped mid-block connections typically as part of larger developments. May include required on-site green stormwater infrastructure. Does not include public R.O.W. improvements to "green" an existing street. Midblock connections may be used for emergency access, and may also be used for access to loading zones, parking entrances, or other "back of house" functions.

#### BIKE/PEDESTRIAN SHARED



#### Permitted Frontage Types

URBAN STREET EDGE	RETAIL & ACTIVE USES	RESIDENTIAL STOOP/PORCH	PLAZA/PUBLIC SPACE	PRIVATE YARD
Permitted	Permitted	Permitted	Permitted	Permitted

**Functional Classes** Neighborhood Access, Trail

**Adjacent Land Uses** Low to high intensity commercial or residential uses, typically within larger developments. May have active ground-level uses, depending on site design.

# Draft

## Transportation Projects Summary

### Transportation Projects

A number of different projects are being considered as part of this process related to Transportation. Different categories of funding and implementation exist for these projects including developer led new site projects, 6 year CIP, 20 year CIP, and WSDOT Development funded. The K Line efforts which are restarting and the Station Area Plan does not preclude other transit specific infrastructure investments as a result of more detailed K line study in the future.

Example Developer led transportation projects include:

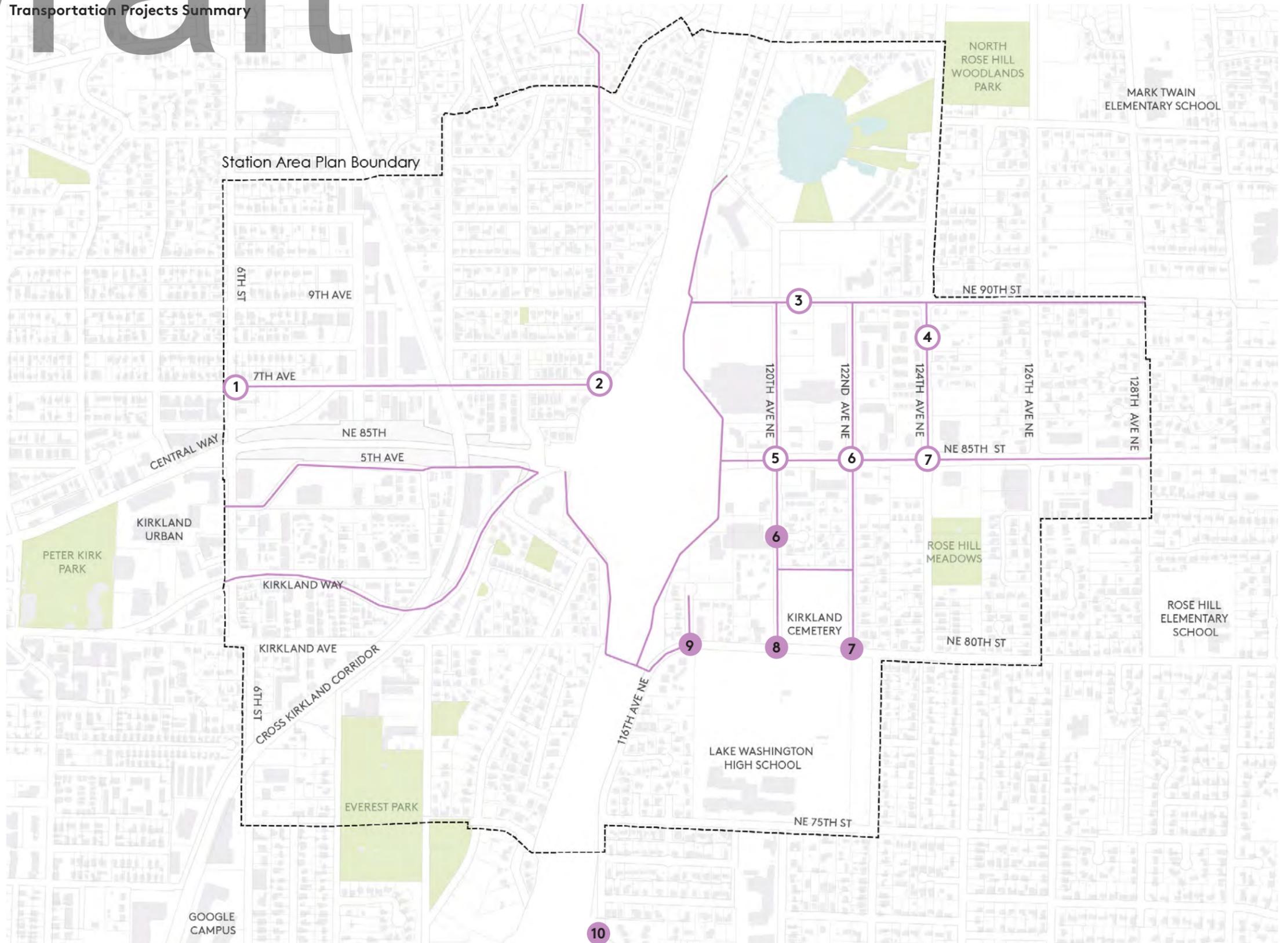
- NE 83rd Street / 120th Avenue NE signalized access and 120th Avenue NE corridor improvements with sidewalks and northbound left turn lane (NE 83rd Street to NE 85th St)

Projects to be completed as part of the WSDOT interchange and funded as part of the Stride BRT project, include:

- the shared use paths through the interchange
- shared use path from the BRT station through pick up drop off to 87/116th intersection, and
- 3rd Eastbound Lane on 85th Street new multiuse trail south side of 85th

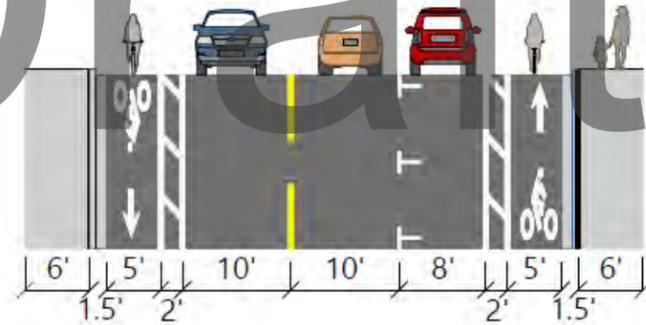
A few representative projects amongst a long list, and have been highlighted in the following section in further detail on the following pages:

- 1 NE 87TH / 7TH AVE CORRIDOR
- 2 COMPACT ROUNDABOUTS AT NE 87TH AND 116TH AVE
- 3 NE 90TH STREET CORRIDOR
- 4 124TH AVENUE NE WIDENING AND PROTECTED BIKE LANES
- 5 NE 85TH STREET AND 120TH AVENUE NE IMPROVEMENTS
- 6 NE 85TH STREET IMPROVEMENTS: I-405 TO 128TH AVENUE NE
- 7 NE 85TH AND 124TH AVENUE NE IMPROVEMENTS
- 8 NE 80TH STREET AND 120TH AVENUE NE IMPROVEMENTS
- 9 NE 80TH STREET AND 116TH AVE NE IMPROVEMENTS
- 10 116TH AVE NE INTERSECTION IMPROVEMENTS

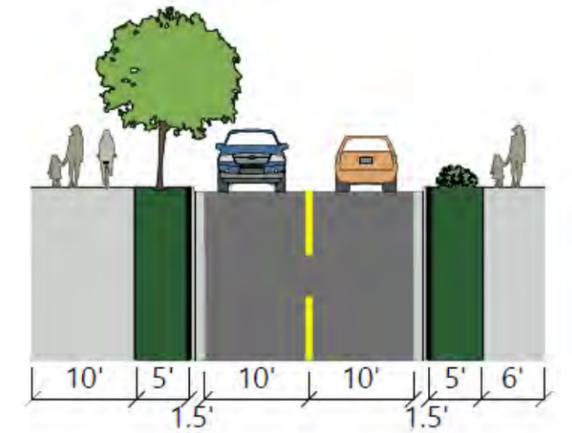


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**7th Avenue - NE 87th Street  
(6th Street to Cross Kirkland Connector)  
Buffered/Parking Protect Bike Lanes**

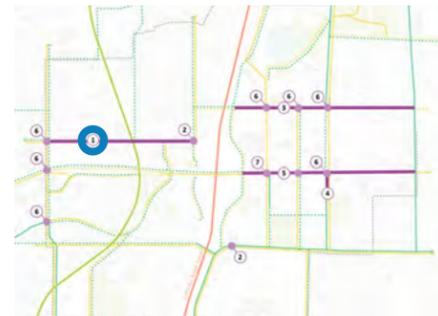


**90th Street  
(I-405 to 122nd Avenue NE)  
Shared Use Path / Possible Boardwalk**



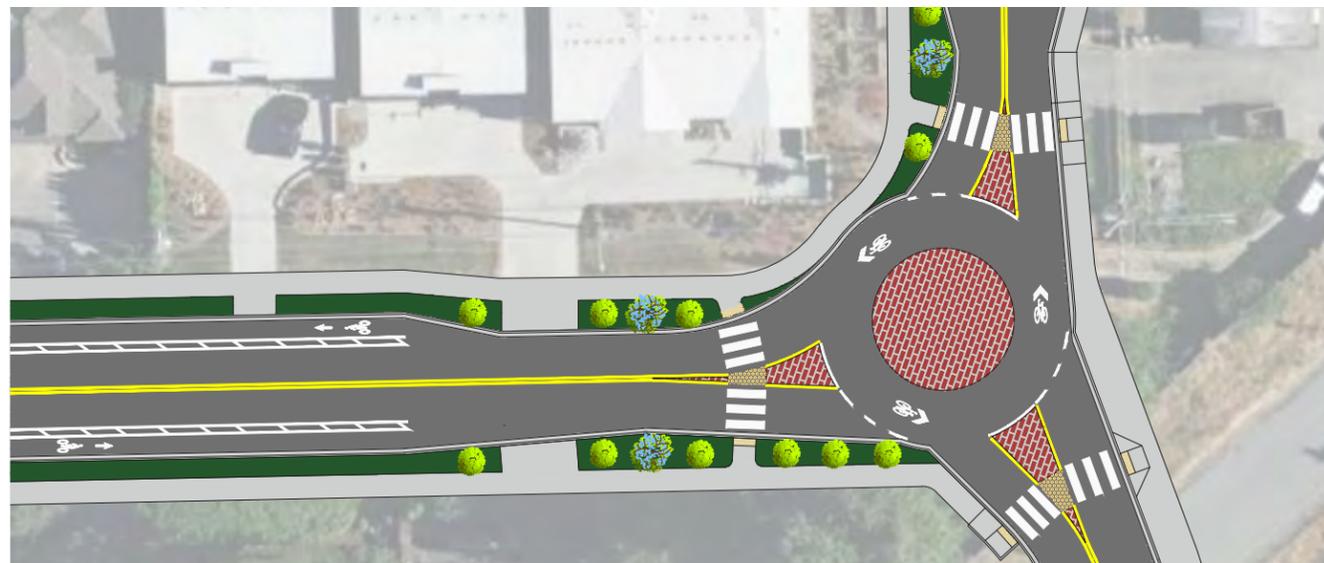
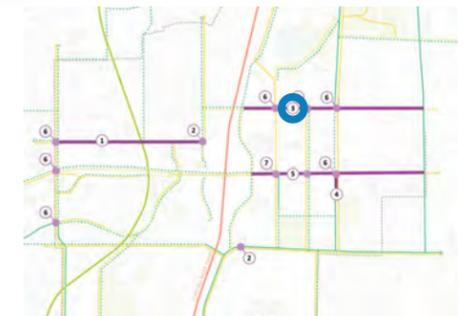
**NE 87th and 7th Ave Corridor**

Provide buffered bike lanes and consistent sidewalks between 6th Avenue and 116th Avenue NE. West of the Cross Kirkland Corridor, provide parking-protected bike lanes on the north side of the street. East of the Cross Kirkland Corridor, provide buffered bike lanes, and a 5-foot landscape strip to enhance the street's character.



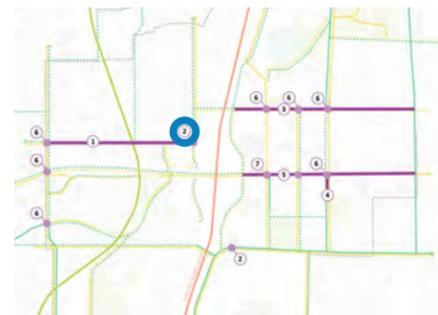
**NE 90th Street Corridor**

Between I-405 and 122nd Avenue NE, build a shared-use path or boardwalk on the north side of the street. Between 122nd and 128th Avenue NE, provide buffered bike lanes and sidewalks with landscape strips on both sides of the street.



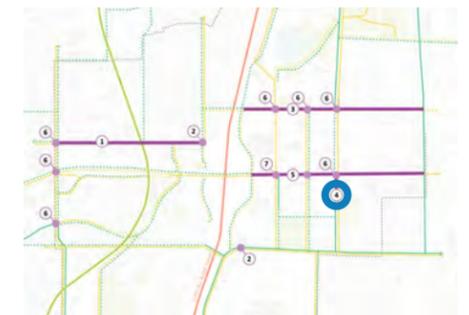
**Compact Roundabouts at NE 87th and 116th Ave**

Revise this intersection to be a compact roundabout that better accommodates people walking, biking, and access to the NE 85th Street Station pick-up and drop-off.



**124th Avenue NE Widening and Protected Bike Lanes**

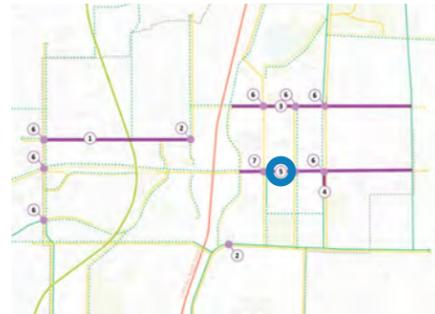
Widen 124th Avenue NE to five lanes plus physically separated bike lanes from NE 85th Street through the NE 90th Street intersection. This project also includes continuation of protected bike lanes south through the NE 85th St intersection to NE 84th Lane to connect to exiting bike lanes.





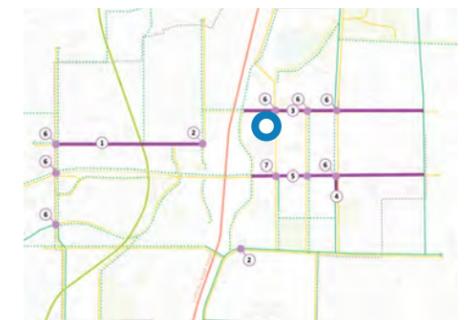
**NE 85th Improvements: I-405 to 128th Avenue NE**

To offer a high-quality experience for people walking, rolling, and making last-mile connections by bike, enhance NE 85th Street between I-405 and 124th Avenue NE. Recommended treatments include grade-separated active transportation zones on both sides of the street that include one-way raised bike lanes, sidewalks, and amenity zones.



**NE 85th Street and 120th Avenue NE Improvements**

As part of the overall enhancement to the NE 85th Street corridor to better accommodate all travel modes, improve the NE 120th Avenue intersection to include an added eastbound lane as storage capacity from the interchange, and added northbound left turn lane to accommodate expected traffic volume increases, a bump out of the northwest corner to clarify operations for two westbound incoming lanes and reduce the north/south crossing distance, high-visibility crosswalks, shared use paths to the west connecting to the Stride BRT stations, and raised protected bike lane and wide sidewalks to the east.



# 10.0 Draft

Utilities &  
Public Services —

# Draft

## Utilities & Public Service Concept & Goals

Overall, the approach to infrastructure and public services improvements should take a holistic view of all the potential improvements and seek efficiencies through multi-benefit strategies, or timing projects to be bundled together and reduce construction needs.

**Prioritize Multi-Benefit Strategies:** To maximize investment and community benefit, multi-benefit strategies that achieve multiple goals through one intervention should be prioritized. For example, green infrastructure and planting can provide tree canopy/air quality benefit, bioswales to provide stormwater benefit, increases habitat or biodiversity, improves human mental and physical health, and provides resiliency to climate change. It should be noted that water plays into Ecosystem / Green Infrastructure, Energy due to energy needed to deliver water, and Building Performance.

## Stormwater Infrastructure

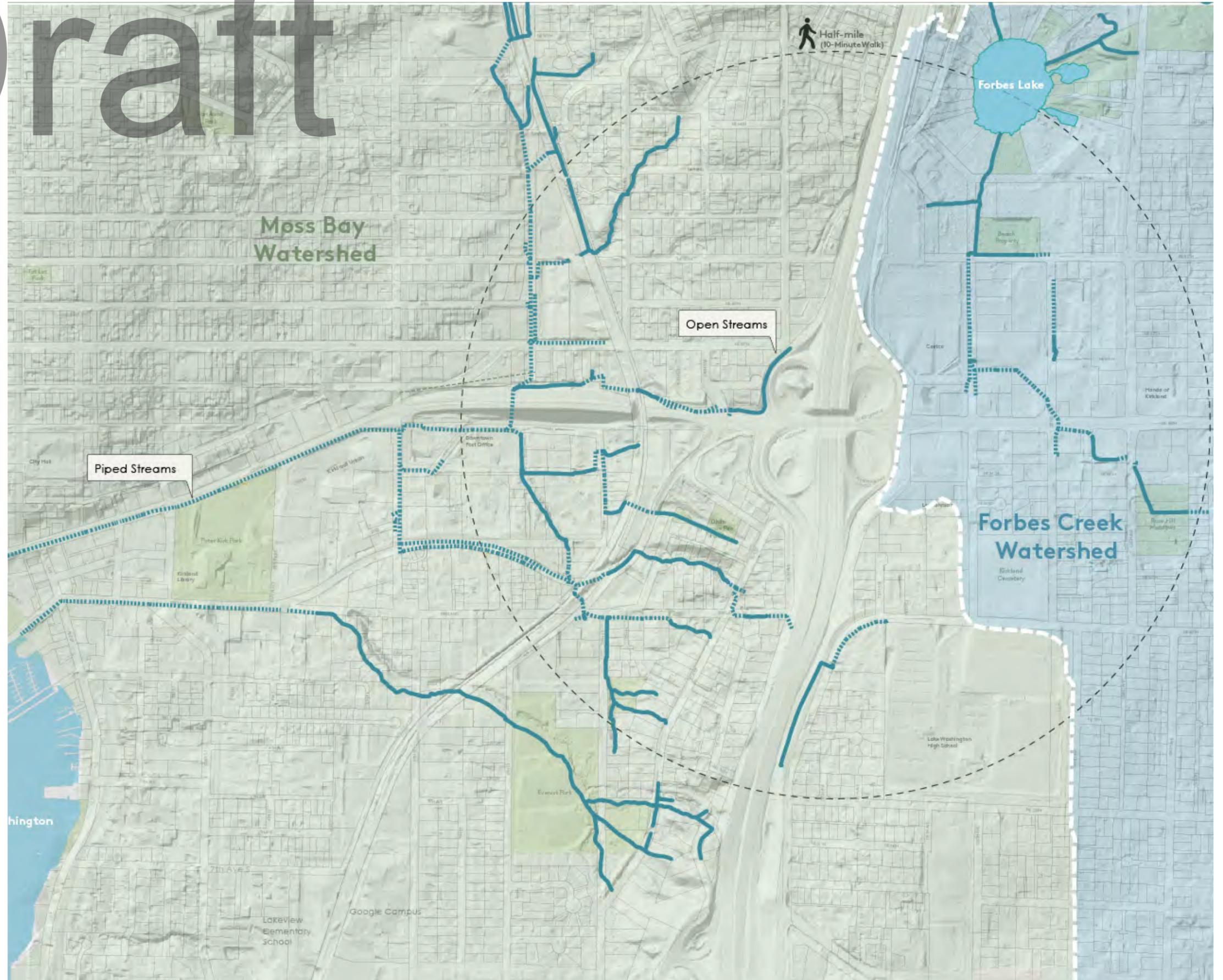
The City of Kirkland has a track record of innovative stormwater management and aquatic resource protection. The opportunities to further promote innovative stormwater strategies for future development look at possibilities to reduce the stormwater management burden (e.g. facility cost, space required) for redevelopment projects within the subarea, while protecting the natural environment and the City's stormwater infrastructure. The opportunities are strongly influenced by the environmental conditions and regulatory requirements within the two primary stream basins of the subarea, the Moss Bay Basin and the Forbes Creek Basin.

### Moss Bay Stormwater Opportunities:

Development and redevelopment projects within these stream-discharge areas are required to comply with stringent flow control requirements, which necessitate large detention facilities to protect the stream channels from the damaging effects of high flow; however, there is no viable fish habitat mapped in this area. Downstream of these open stream channels, the City may allow smaller detention facilities if it can be demonstrated that the downstream stormwater conveyance infrastructure is adequate to handle the existing flows.

### Forbes Creek Stormwater Opportunities:

Forbes Creek is a salmon-bearing stream and is identified as priority habitat. This basin also includes a large area that discharges to Forbes Lake, which requires that projects in the basin to utilize water quality practices that provide phosphorus treatment. The primary opportunity in the Forbes Creek basin to reduce the stormwater management burden for redevelopment projects is to meet those stormwater requirements at a different site, such as through regional stormwater facilities constructed by the City prior to redevelopment. Development of the Forbes Lake Park concept could also contribute to wetland and stream buffer restoration to enhance function.



# Draft

## Distributed / Shared Infrastructure Water and Sewer

To increase resilience and flexibility, prioritize a more distributed, multi-source approach to infrastructure that is less vulnerable to risk from disruptions and allows for changes over time. Support the shift from centralized large-scale infrastructure, such as centralized energy or stormwater treatment plants, to networks of smaller scale facilities that can be interconnected and shared; also recognizing that this is likely to be a mid- to long-term process.

There is also an opportunity to explore the concept of a Blue Green Corridor, which can be designed to achieve a broad range of goals for placemaking, stormwater management and quality, and urban ecology and therefore can range from an open vegetated stream channel to a series of at grade bioretention cells, to water and ecology themed art installations and specialty paving, to trees and other plantings all of which can be paired with below grade traditional grey infrastructure (i.e., vaults and pipes).

Increased growth in the Station Area will mean an increased consumption of water from the regional supply and increased sewage production requiring treatment. The City is planning for needed water and sewer improvements beyond the current capital improvement planning within the Water System Plan, Water CIP Update, and General Sewer Plan. These will include upgrades and replacement of existing pipes, that will help support improvements to fire flow requirements in the water system, and improvements to address increased flow in the sewer system. The overall plan goals and policies also support a more efficient, high performance approach to water use than represented in conventional demand models. See the Green Innovation Strategies for more information. Goals and Principles include: Goals and Principles include:

### Reduce Demands

Developments can incorporate efficiency measures through their systems and fixture selection, as well as operations. The Green Innovation Strategies incorporate the standard of reducing water use in buildings by 10% by 2025 and 20% by 2030 as compared to a 2019 baseline. Reduced water demands will also reduce energy needs to convey the water.

### Use Potable Water for Potable Needs

Today, it is common practice to use potable water for all water needs, including uses such as irrigation that do not necessitate a potable water treatment standard. By using recycled water sources, such as cleaned stormwater for irrigation, the demand for potable water is reduced and we will use less water from our streams and groundwater basins. This principle will support a healthy ecosystem and habitat, and in particular, stream health within the Moss Bay watershed. While there are some regulatory barriers that exist today, recycling water on-site or in larger, district facilities is anticipated to become more common during this plan horizon, and should not be precluded. Future proofing strategies include developments with dual plumbing to allow for purple pipe connections in the future. These strategies are encouraged by third-party protocols like the Living Building Challenge.



# Draft

## Public Services

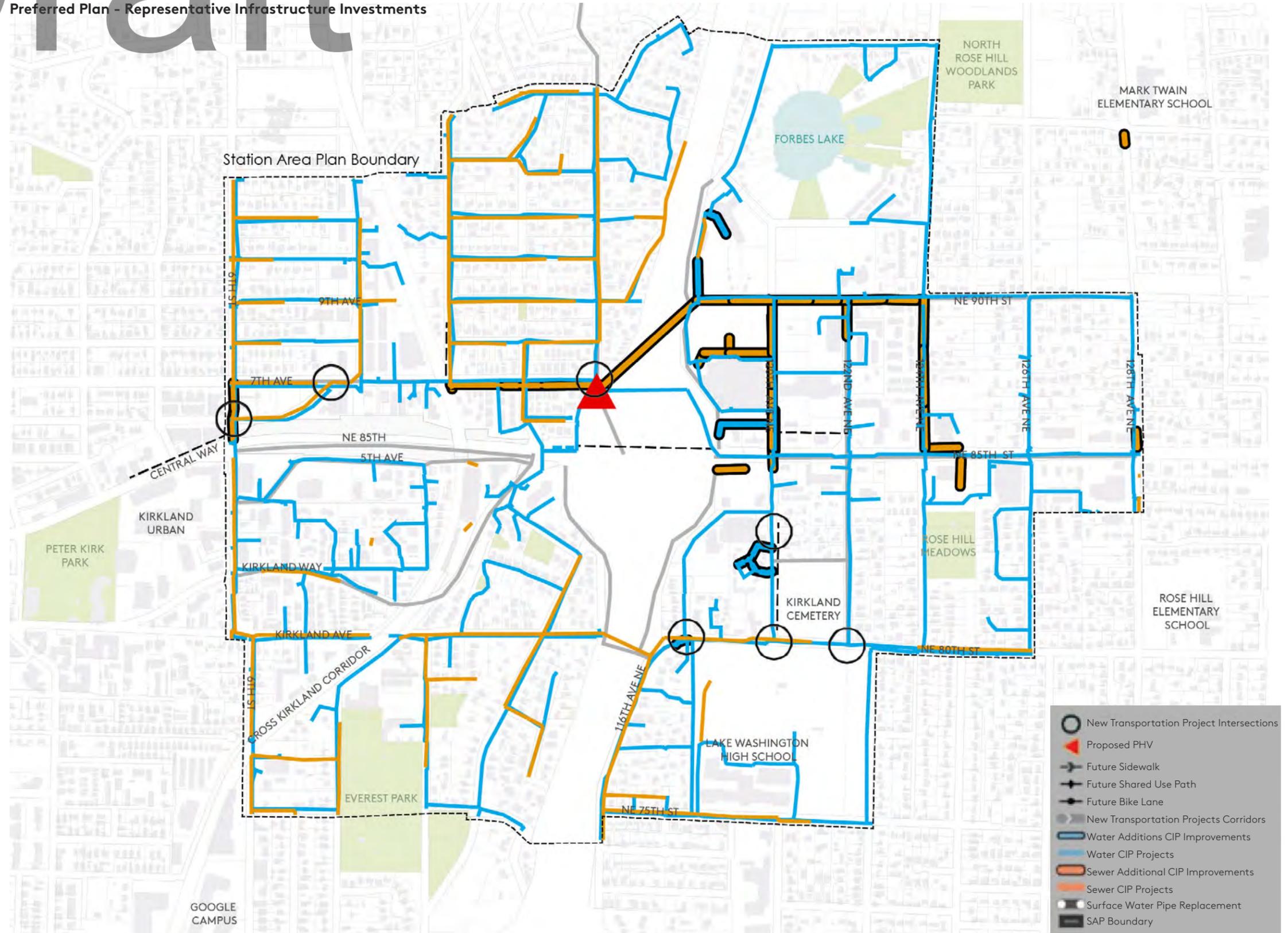
To support planned growth, public services including schools, parks and open spaces, transportation, and utilities will also be needed. The City has planned for meeting these needs in alignment with Level of Service (LOS) standards. With a more compact, mixed-use form of development than other parts of Kirkland, there may be opportunities to consider an approach to service provision that takes advantage of more varied mobility choices, like walking, biking, and transit. The City will plan for additional Police and Fire and Emergency Services staff and equipment to align with population growth, including at Fire Station 26. For more information refer to the Fiscal Impacts and Community Benefits Analysis (2021).

## Representative Projects

Planning level studies completed for the Fiscal Impacts and Community Benefits Analysis (2021) determined a set of representative infrastructure investments needed to maintain service levels in water, sewer, and stormwater given the planned household and employment growth for the station area. A full list is available in the Appendix 10.2, Project List.

- Notable water and sewer improvements needed include a water main under I-405 as required by WSDOT due to construction of the BRT station, as well as a sewer capacity project that crosses under I-405 to connect the King County transmission line under Cross Kirkland Corridor.
- Within the representative infrastructure improvements, the only recommended stormwater project within the Study Area consists of replacing 520 feet of pipe along 120th Ave NE with a smoother pipe material to increase conveyance capacity.

### Preferred Plan - Representative Infrastructure Investments



Source: City of Kirkland

# 11.0 Draft

## Appendix — Table of Contents

**DISCUSSION DRAFT:  
NOTE THAT THE APPENDIX IS NOT INCLUDED  
IN THIS DRAFT VERSION- THE FINAL DRAFT  
WILL INCLUDE FULL APPENDIX.**

### 11.0 Appendix Table of Contents:

11.1 Implementation Strategies

11.2 Project List

11.3 Supporting Plan Summary

11.4 Market Study (2020)

11.5 Forbes Lake Technical Memo

11.6 Transit Travel Time and Person Trip Analysis

11.7 Engagement Comment Summaries

11.8 High-Performance Buildings & Sustainability Protocols