

Existing Conditions and Population Forecasts

3

145th Street Station Subarea Plan

Station Subarea Geography

N-NE 145th Street is the most prominent corridor in the subarea, also functioning as State Route (SR) 523 and the boundary between the City of Seattle and the City of Shoreline. Currently, Seattle owns the eastbound lane, King County owns the westbound lane, and Shoreline begins behind the north edge of the sidewalk.

The subarea generally extends approximately one-half mile north of the 145th corridor, with the western boundary at Meridian Avenue N, the eastern boundary near 15th Avenue NE, and the northern boundary at N-NE 155th Street.

For analysis related to the 145th Street Station Subarea Plan, the City of Shoreline Planning Commission determined study area boundaries for land use and mobility with consideration of factors such as topography, the ability to walk and bike to and from the station, policy direction from Shoreline City Council, access to arterial streets, opportunity sites, environmental assets, and other existing conditions and influences.

Figure 1-1 in Chapter 1 illustrates the land use and mobility boundaries that together comprise the combined study area for the subarea.

The subarea is predominantly composed of portions of the Parkwood and Ridgecrest neighborhoods of Shoreline, but also includes a small area of the Briarcrest neighborhood, east of 15th Avenue. Bordering areas include the City of Seattle to the south, and incorporated areas of Shoreline to the north, west, and east. The City of Lake Forest Park is located to the east of the subarea. **Figure 3-1** illustrates the neighborhoods within and surrounding the subarea.

Analysis of population, housing, and employment projections and transportation planning in the subarea applies traffic analysis zone (TAZ) boundaries. Because TAZ boundaries align with census tract boundaries, they are commonly used for planning and analysis purposes. Refer to **Figure 3-2** for a map of the TAZ boundaries.

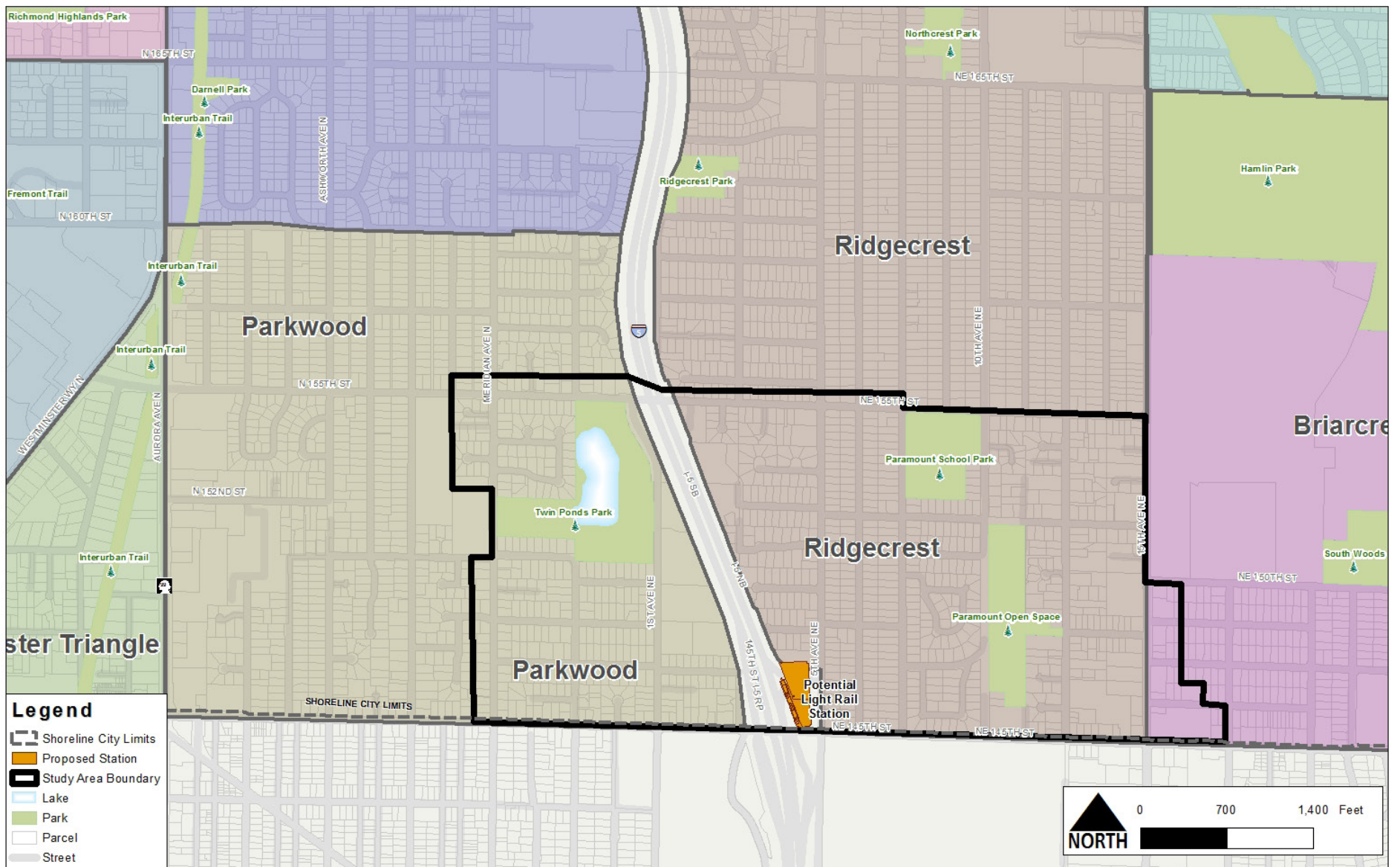


FIGURE 3-1: Subarea Neighborhoods

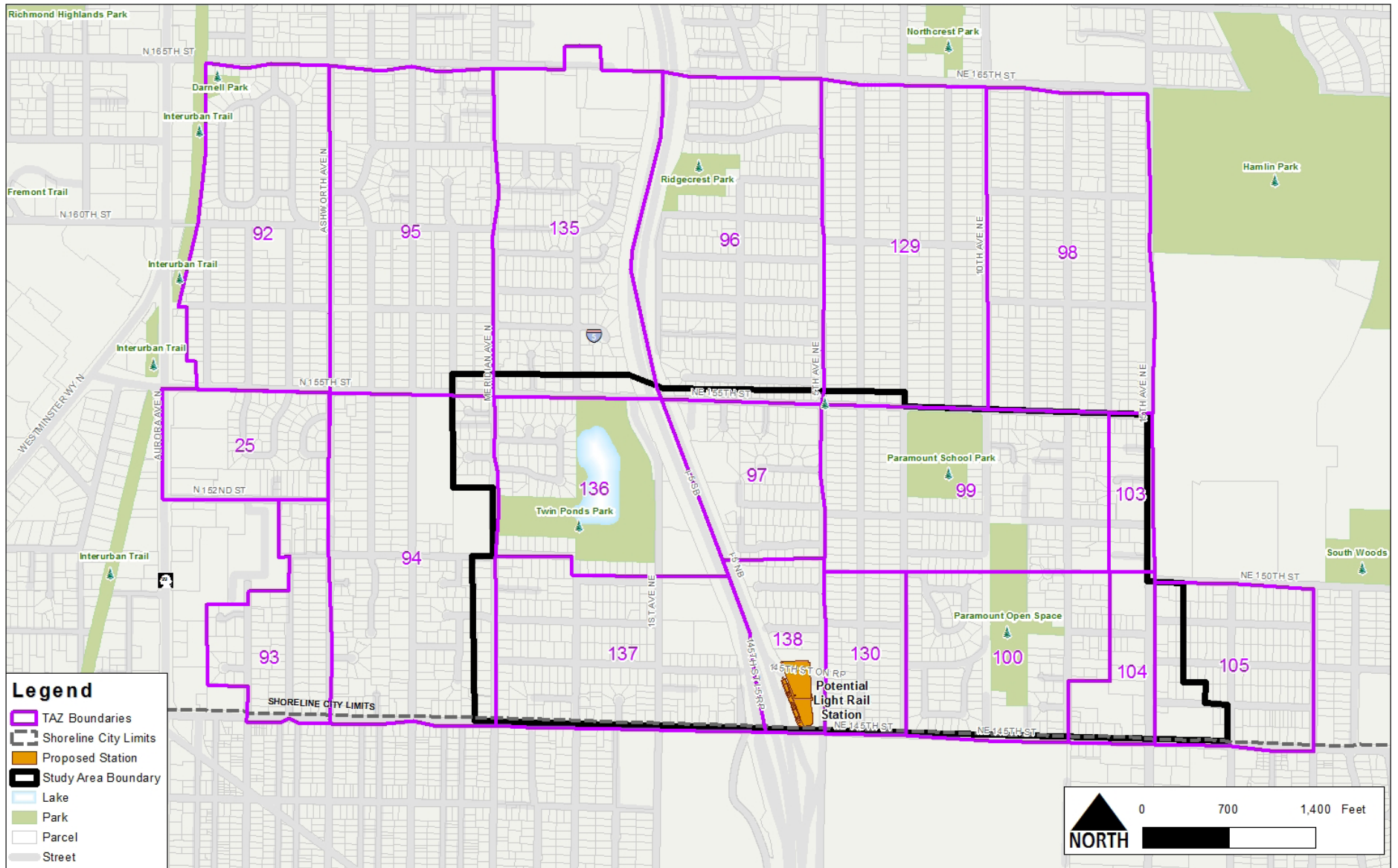


FIGURE 3-2: Traffic Analysis Zone (TAZ) Boundaries



Mae Newkirk feeding chickens in 1914

Proposed Sound Transit Light Rail Station Facilities

Through a separate environmental process, Sound Transit identified the potential light rail station location. The preferred option for the station location is just to the north of NE 145th Street on the east side of and immediately adjacent to the Interstate 5 (I-5) corridor. A park-and-ride structure, also to be constructed by Sound Transit, potentially would be located also on the east side of I-5, just to the north of the light rail station.

The City of Shoreline supports the station location proposed by Sound Transit, and identifies the location in the City's Comprehensive Plan Land Use Map. **Figure 3-3** and **Figure 3-4** show conceptual design plans provided by Sound Transit for the 145th Street light rail station (preferred alternative). These figures show a conceptual level site plan and cross section views of the potential 145th Street light rail station and park-and-ride structure.

The second proposed Sound Transit light rail station in Shoreline is planned to be located immediately north of NE 185th Street, adjacent to the east side of I-5. The primary connecting routes between the 145th and 185th light rail station subareas include the north-south corridors of 5th Avenue NE, 8th Avenue NE, 10th Avenue NE, and 15th Avenue NE.

Land Use Patterns in the Subarea

Envisioning how the 145th Street Station Subarea could transform into a redeveloped transit-oriented community is benefitted by understanding the past and present settlement patterns and land uses in the vicinity.

HISTORY AND SETTLEMENT OF THE AREA

Early accounts of Shoreline tell how Native Americans traveled along the shores of Puget Sound and local streams collecting swordfern and kinnikinnick at Richmond Beach, and wild cranberries at what are now Ronald Bog and Twin Ponds parks. Controlled fires were set in the Richmond Highlands and North City areas to create meadows for the cultivation of certain wild plants and to provide inviting, open spaces for small game.

In the 1880s, the US Government opened the region to homesteading after railroad fever gripped the Northwest. Speculators planned towns in anticipation of the transcontinental railroad route. Among these was Richmond Beach, platted in 1890. The arrival of the Great Northern Railroad in Richmond Beach in 1891 spurred the growth of the small town and increased the pace of development in the wooded uplands.

Construction of the Seattle to Everett Interurban trolley line through Shoreline in 1906, and the paving of the North Trunk Road with bricks in 1913, made travel to and from Shoreline easier, increasing suburban growth. People could live on a large lot, raise much of their own food and still be able to take the Interurban, train, or (beginning in 1914) the bus to work or high school in Seattle. Children could attend one of two local elementary schools, and general stores provided most of the goods that could not be grown at home. Local produce from fruit orchards, chicken farms, and strawberry crops was transported via the Interurban or the train. The Fish family's Queen City Poultry Ranch on Greenwood at 159th was a prosperous chicken farm that attracted many visitors. Ronald Station along the trolley line was located near present-day Park at Town Center.

During the early twentieth century, Shoreline attracted large developments drawn by its rural yet accessible location, including the Highlands and Seattle Golf Club (circa 1908). The Firland Tuberculosis Sanitarium (circa 1911), which is now Crista Ministries, also developed during that era. Commercial centers formed around Interurban stops at Ronald (175th Street and Aurora Avenue N) and Richmond Highlands (185th Street and Aurora Avenue N). Car travel facilitated settlement, which increased considerably by the mid-1920s. Although large tracts of land were divided into smaller lots in the 1910s in anticipation of future development, houses were still scattered.

A precursor to Interstate 5, Highway 99 was constructed to stretch from Mexico to Canada, offering more convenient access than ever before to America's new auto travelers. Originally known as the Pacific Highway, but later named Aurora Speedway and Aurora Avenue, there are conflicting histories of the source of the name "Aurora." Some say the name was meant to honor Aurora, Illinois, the hometown of Dr. Edward Kilbourne, a Fremont founder. Others say the name recognized the highway as a route north, toward the Aurora Borealis. Regardless of how the highway got its name, it changed the face of the area north of Seattle forever, and as more people took to the road in automobiles, there was less use of the old trolley line. The Interurban made its last run in February of 1939. By the late 1930s and early 1940s, commercial development concentrated along Aurora Avenue, which saw steadily increasing use as part of the region's primary north-south travel route. Traffic on 99 swelled, particularly after the closing of the Interurban.

The Great Depression and World War II (1930-1945) slowed the pace of development. Many Shoreline families managed to live off land they had purchased in better times. During World War II, building materials were rationed and housing construction virtually stopped. The only major development in Shoreline during the war was the Naval Hospital (now Fircrest). At its peak in 1945, the hospital housed over 2,000 patients and 600 staff.



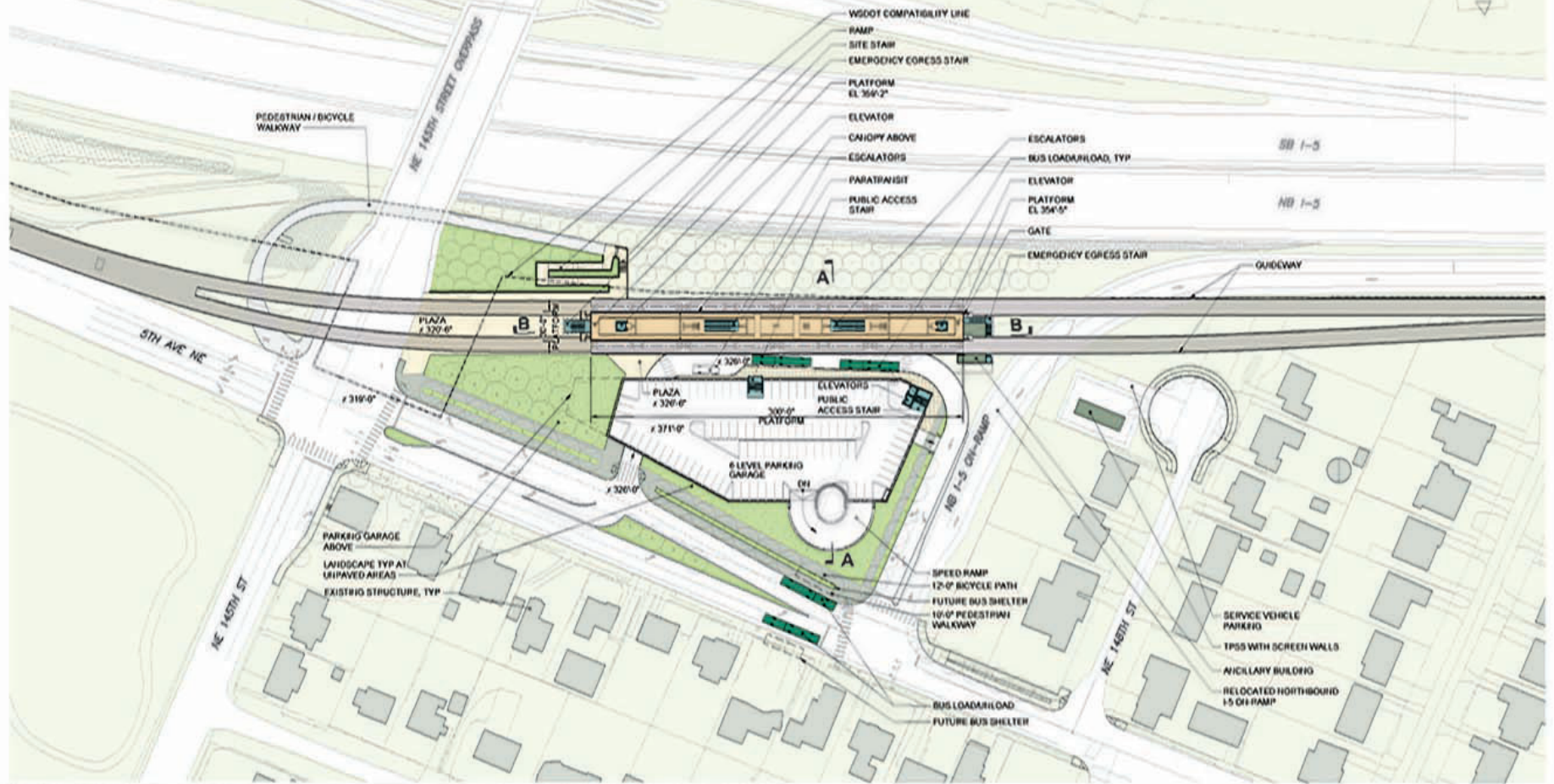
Edward Yenne Grocery exterior Maywood ca 1925

With the end of the war came a substantial demand for family housing. The late 1940s saw large housing developments such as Ridgecrest (NE 165th to 155th Streets, 5th to 10th Avenues NE) spring up seemingly overnight. Schools ran on double shifts as families with young children moved into the new homes. In the late 1940s, business leaders and residents began to see Shoreline as a unified region rather than scattered settlements concentrated at Interurban stops and railroad accesses.

In 1944, the name "Shoreline" was used for the first time to describe the school district. Coined by a student at the Lake City Elementary School, it defined a community that went from the Seattle city line to Snohomish county line and from the shore of Puget Sound to the shore of Lake Washington.

Shoreline continued to grow, becoming an attractive place to live in the central Puget Sound region due to the great neighborhoods, schools, parks, and other community features. After it became clear that an additional north-south freeway would be needed to handle the cross-state traffic, Interstate 5 was constructed in the 1960s, with the final segment in Washington state opening on May 14, 1969. With its opening, motorists could travel without stopping from the northern California state line to the Canadian border, and Highway 99 became

SOUND TRANSIT LYNNWOOD LINK EXTENSION



STATION CONFIGURATION & ALIGNMENT	BUS FACILITIES	PARK AND RIDE	PICK UP AND DROP OFF	BICYCLE PARKING
ELEVATED, CENTER PLATFORM	2 ON-STREET BUS BAYS, 1 SOUTHBOUND AND 1 NORTHBOUND ON 5TH AVENUE NE, 1 OFF-STREET BUS BAY	PARKING GARAGE FOR UP TO 462 CARS	3 SPACES ON LEVEL 2 OF PARKING GARAGE	50 BIKE SPACES, PLUS 50 EXPANSION

PLATFORM/MEZZANINE	BUS LOAD/UNLOAD	AUXILIARY AREA
PLAZA	BUS LAYOVER	BIKE STORAGE
VERTICAL CIRCULATION	TICKETS/INFORMATION	LANDSCAPE PLANTING AREA



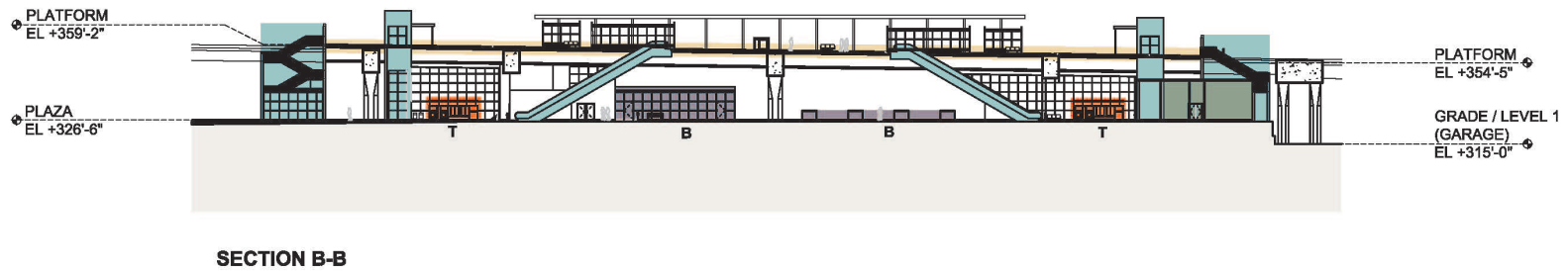
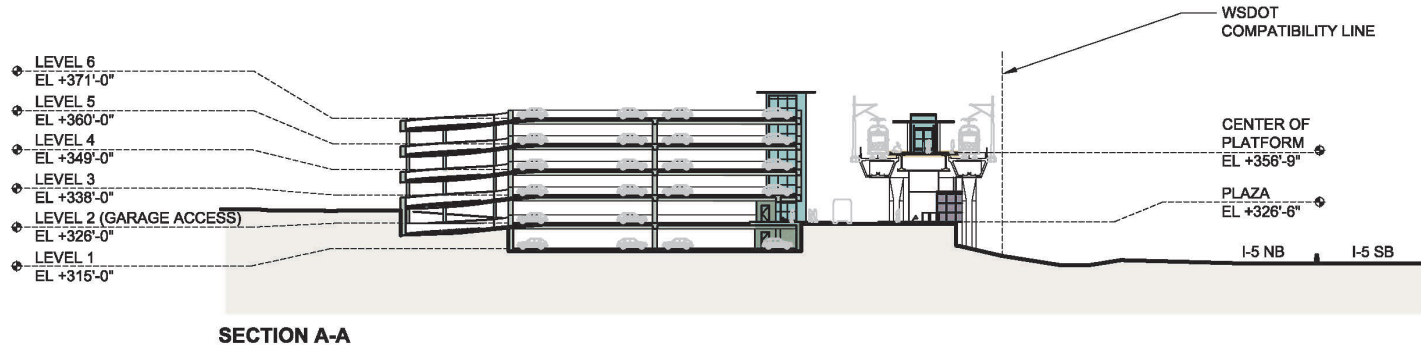
HEWITT

PREFERRED ALTERNATIVE
NE 145TH STREET STATION
SITE PLAN

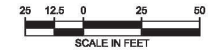
DWG NO. N13-AAP001
SHEET 32 OF 59
REV. NO.



SOUND TRANSIT LYNNWOOD LINK EXTENSION



- Platform
- Plaza
- Vertical Circulation
- Bus Load/Unload
- Bus Layover
- T Ticketing/Information
- Ancillary Area
- B Bike Storage



**North Corridor
Transit Partners**
PARAMETRIX + PARSONS BRINCKERHOFF

HEWITT

**PREFERRED ALTERNATIVE
NE 145TH STREET STATION
SECTIONS**

DWG NO. N13-ASX101

SHEET 33 OF 59

REV. NO. _____

FIGURE 3-4: Sound Transit Concept Plan for the 145th Light Rail Station



DRAFT—JULY 2016

145th Street Station Subarea Plan

3-7

more of a regional route and alternate travel way to Interstate 5. The Interstate 5 corridor bisected the community that had become known as Shoreline, and made east-west travel on local roads more difficult.

Although known as “Shoreline” for decades, the community did not become officially incorporated city until 1995, and prior to that it remained an unincorporated area of King County north of Seattle. Today with 54,790 residents (2013 population), Shoreline is Washington's 15th largest city.

PRESENT-DAY LAND USE PATTERNS

The subarea today consists primarily of single family neighborhoods zoned as R-6 (residential, six units per acre) and developed at an average density of 3.2 units per acre. Refer to Figure 3-5 for a map of existing zoning. In addition to single family residential uses, there are several houses of worship, parks, schools, and school properties within and in proximity to the subarea. For example, just northeast of the subarea a large contiguous area of land contains Hamlin Park, Kellogg Middle School, Shorecrest High School, Washington State Public Health Lab, and Fircrest Campus, although these parcels are owned and operated by various agencies.

Because most of the neighborhoods in the subarea were developed as single-family housing in the decades following World War II (primarily from the mid- to late 1940s through the 1970s, when the area was part of unincorporated King County), street standards did not require sidewalks, and as such, most of the local streets today do not have sidewalks or bike lanes. Also at that time when the neighborhoods were originally developed, surface water management standards were less intensive than they are today and as such, there are frequently drainage issues in the subarea. Stormwater facilities are generally below the standard now required by the Department of Ecology, and there are very few low impact development facilities such as rain gardens.

The City of Shoreline, incorporated in 1995, now has jurisdiction over this area and works with the community to prioritize capital transportation and infrastructure improvements throughout the city.



Twin Ponds Park

Although some improvements have been made in the subarea in recent years, budget constraints have limited the level of street and utility improvements completed to date.

Growth and change over the past 50 years in the subarea has been minimal, limited to areas that are zoned to accommodate redevelopment into a mix of residential, commercial, retail, and office at a few limited locations within and adjacent to the subarea.

NEIGHBORHOODS IN THE SUBAREA

The subarea includes the following defined Shoreline neighborhoods

- ▶ Parkwood
- ▶ Ridgecrest
- ▶ Briarcrest (Only a small portion of this neighborhood is within the subarea boundaries, specifically the parcels adjacent to the east of 15th Avenue NE.)

Shoreline’s neighborhoods are very engaged in the community and maintain active neighborhood associations. Shoreline’s Council of Neighborhoods consists of two representatives from each of the neighborhood associations (including those listed above). The Council

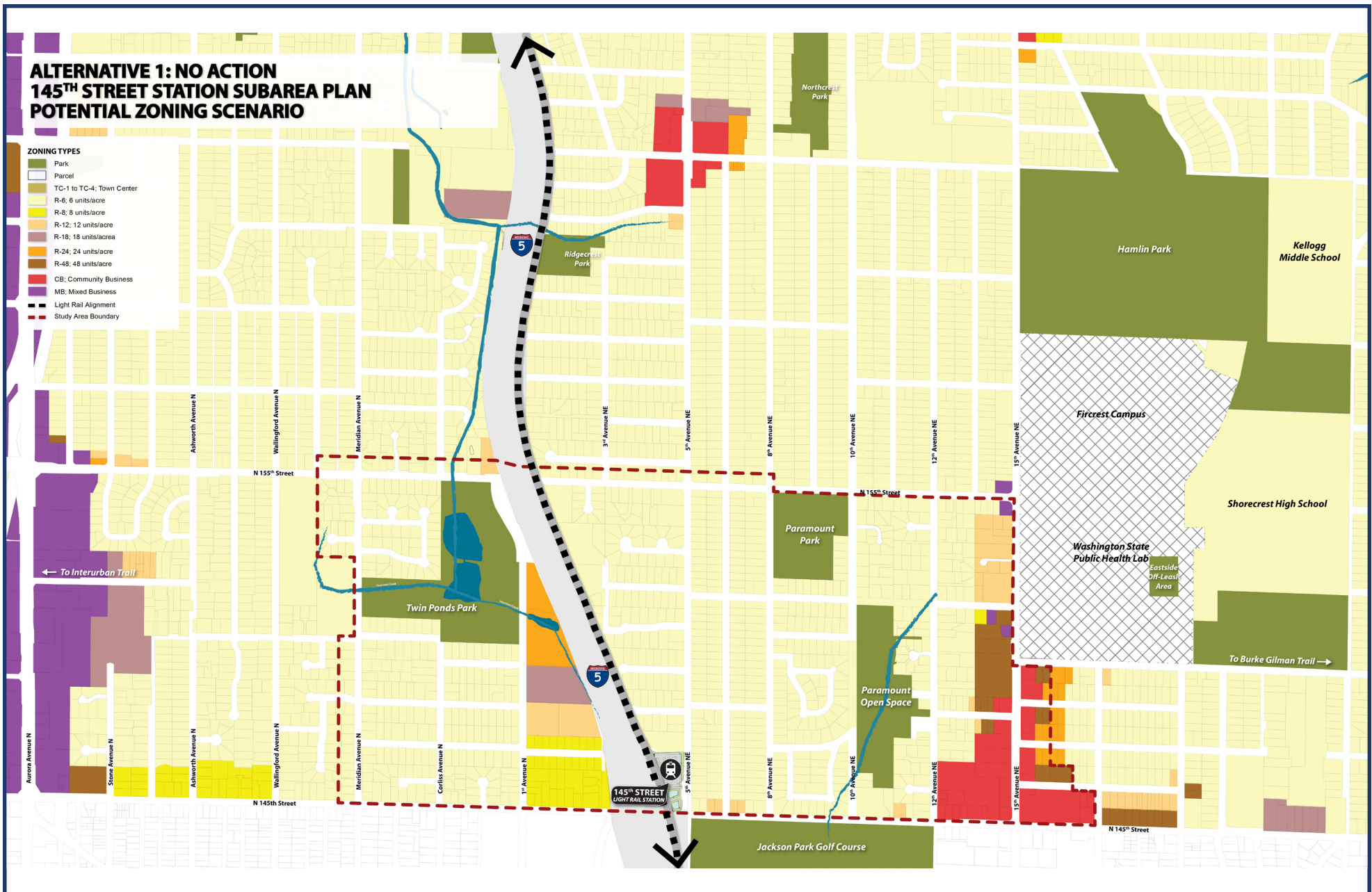


FIGURE 3-5: Existing Zoning Map



Ridgecrest Elementary School

of Neighborhoods meets monthly to network, learn about other neighborhood happenings and meet with City representatives. This two-way communication allows neighborhood associations to provide community input and the City to present information on programs and projects. Brief descriptions, including historical information, for the three primary neighborhoods in proximity to the subarea follow.

PARKWOOD NEIGHBORHOOD—Located at the southern edge of Shoreline, the Parkwood Neighborhood extends from N 160th Street to NE 145th Street, and from Aurora Avenue N to Interstate 5. Twin Ponds Park is a key feature of the neighborhood. Twin Ponds Park contains two ponds, recreational facilities, and a natural area with a stream that feeds Thornton Creek. Parkwood lies within the headwaters of the Thornton Creek watershed, a complex system of small streams and peat bogs, where wild cranberries were known to grow. Early accounts of the area mention how Native Americans would visit the area that is now Twin Ponds Park to collect the wild cranberries. The Interurban Trail crosses through the northwest corner of the neighborhood.

The Parkwood Neighborhood, like other neighborhoods of Shoreline, was primarily agriculture and forest with a few residential homes in the early 20th century. Businesses such as wood cutting, grocery, poultry, and fur animal husbandry took place. Extensive peat mining occurred in the Parkwood area as well. Eventually construction of roads such as North

Trunk Road (now Aurora Avenue N) led to easier access between the neighborhood and Seattle, increasing the neighborhood's desirability. Today, the predominant land use in Parkwood still consists of single family homes, with the exception of commercial uses along Aurora Avenue N, and public recreational facilities in Twin Ponds Park. In addition to single family homes, multifamily and assisted living residences also exist in the neighborhood. Parkwood's 2014 population was estimated to be 2,562.

RIDGECREST NEIGHBORHOOD—Ridgecrest Neighborhood extends from I-5 east to 15th Ave NE, and from the southern boundary of NE 145th Street to the northern boundary of NE 175th Street. The planned light rail station and park-and-ride structure is located in this neighborhood. The first major housing development in the neighborhood happened in the mid 1940s, near the end of World War II. Returning soldiers could purchase any one of the 100 houses that were built in 100 days. So many families with school age children moved to the neighborhood that the newly completed Ridgecrest Elementary School had to run double shifts. The majority of the single family housing stock was built in the late 1940s to early 1950s on large lots, set well back from the streets. Although some homes in this neighborhood were built earlier, including a log cabin built in 1933 from trees logged from the property that still stands today.

Today, Ridgecrest is a primarily a middle income, working class neighborhood that is both multi-cultural and multi-generational. According to the 2010 US Census, Ridgecrest had 6,116 residents and 2,175 homes, making it one of the most populated neighborhoods in Shoreline. The neighborhood also has nine houses of worship, and four parks, as well as Shoreline's only theatre and skate park, and the oldest operating 7-11 store in the State of Washington.

BRIARCREST NEIGHBORHOOD—Briarcrest Neighborhood is located in the southeast corner of the city, east of the Ridgecrest neighborhood, and extends to the eastern city limits, adjacent to Lake Forest Park. A large portion of Briarcrest was originally part of the Hamlin homestead acquired by the Hamlin family in 1895. The land was logged and farmed for decades. Much of the land of the original homestead was

sold and developed. In 1939 Seattle Trust and Savings Bank donated 8 acres to King County, which became Hamlin Park. Hamlin Park is considered the oldest official park in the King County park system (but today is part of the City of Shoreline's park system). Over the years, the park was expanded through land dedications, and an area to the east was acquired by the Shoreline School District. Today, the 80-acre Hamlin Park contains ball fields, public art, picnic areas, and forest. South Woods Park is another important open space in the neighborhood, consisting of a lowland forest with maintained trails, and pedestrian improvements.

Predominant land uses within the neighborhood in addition to parks and open space include single family residential homes, Shorecrest High School, Kellogg Middle School, and Acacia Cemetery.

KEY SITES AND ASSETS OF THE SUBAREA

TWIN PONDS PARK

Located just across I-5 and slightly to the north of the proposed station is Twin Ponds Park. This park is seen as a key feature, being the only major green-space and recreational area in the subarea west of I-5. The park is irregular in shape and surrounded by primarily single family homes, as well as an assisted living center across the street to the east.

The park was originally referred to as South Central Park by King County. The name was changed to Twin Ponds at some point, likely named after the two ponds that are the dominant feature of the park. In the 1940s and 1950s the property was mined for peat.

Recent improvements to Twin Ponds Park were implemented through a bond approved by voters in 2006. The bond acquired park property and made improvements to its soccer fields. Improvements included installation of synthetic turf to replace a formerly sand field. This also improved surface water quality and drainage. The Twin Ponds Community Garden is an organic P-Patch-style garden in the SE corner of Twin Ponds Park. It consists of 36 10' x 10' raised beds and two 4' x 10' accessible beds. "The Giving Garden" is located in the center of the community garden and is dedicated to growing food for donation to the



Shoreline Farmers Market

local food bank, Hopelink Shoreline. The Giving Garden is run entirely by volunteers. Twin Ponds Park and Twin Ponds Community Garden are owned and operated by the City of Shoreline.

PARAMOUNT OPEN SPACE AND PARAMOUNT PARK

Paramount Park and Open Space are located about five blocks east of the planned light rail station. Paramount Park is located just to the north of Paramount Open Space. Paramount Open Space is a wooded area available for passive recreation use with soft-surface trails and interpretive and plant identification signage. Paramount Park has been improved to accommodate more active recreation and contains baseball/softball fields, restrooms, playground, skate park, a trail that circumnavigates the park, and picnic shelters. The park and open space areas are frequently used by area residents.

PROTECTION OF PARKS AND OPEN SPACE ASSETS

The City of Shoreline fully intends to preserve and protect existing park and open space lands in the subarea. As such, no change in land use is proposed for these areas. In community workshops during the planning process, participants emphasized that parks and open space areas should continue to provide valuable green space to future residents as the subarea redevelops, and that land use alternatives



Twin Ponds Park



should look to maximize access to these features. Participants also were concerned that the natural resources and habitat areas of the park be sufficiently protected to avoid impacts from population growth and more intensive use over time.

HOUSES OF WORSHIP

There are several houses of worship within the station subarea. These properties are larger in size than the single family parcels that make up most of the subarea. These properties may maintain their current uses in perpetuity, or they could become potential transit-oriented development sites due to their size and location along arterial and collector streets. If the property owners are willing and interested, portions or all of these sites have the potential to be redeveloped over time, converting all or portions of the site to mixed use with housing (including affordable options). The proposed zoning for the subarea would accommodate this redevelopment. These properties could either be redeveloped directly by the owners or sold to interested developers in the future at the owners' discretion.

SOUTHEAST NEIGHBORHOODS SUBAREA

The Southeast Neighborhoods Subarea is bounded on the south by NE 145th Street, on the west by 8th Avenue NE, on the north by NE 155th and NE 150th Streets, and on the east by Bothell Way.

The City of Shoreline developed a subarea plan for the Southeast Neighborhoods, which was adopted in May 2010. The plan was developed several years before the preferred location for the 145th Street light rail station was identified, but makes reference to a potential future light rail stop in the subarea. Updated land use designations were adopted in the subarea, allowing more medium and high density residential as well as mixed use and community business. Council may choose to amend the boundaries of the original subarea plan to “zipper” against the boundaries of the 145th Street Station Subarea Plan to avoid inconsistencies in land use designations within the Comprehensive Plan.

HOME-BASED BUSINESSES AND INTEREST IN CONVERTING FROM SINGLE FAMILY USE

There are a few small neighborhood businesses in the subarea, and an interest in more flexibility to convert single family homes to office and small business use. As with other urbanizing areas, there will be a growing need for more neighborhood services and businesses in the subarea. There is also an increasing trend in teleworking, with more people interested in having home-based businesses and offices. This growing need can be accommodated through zoning regulations that were adopted as part of the 185th Street Station Subarea Plan to provide more flexibility to convert single family homes to business and office uses along arterial streets.

AURORA SQUARE/SHORELINE PLACE COMMUNITY RENEWAL AREA

Aurora Square/Shoreline Place is a shopping district built in the 1960s at the crossroads of Aurora Avenue N and N 155th Street, outside the subarea, but within the retail service area of existing and future residents of the subarea. The 70-acre site was designated as a Community Renewal Area (CRA) by Shoreline City Council, recognizing that economic renewal would deliver multifaceted public benefits. A Renewal Plan for the CRA was developed in 2013 and calls for several key actions as part of redevelopment and revitalization of the area. The key opportunity related to the station subarea is proximity and access to the shopping center (in its current form as well as to potential future new uses there) via N-NE 155th Street.

Public amenities and infrastructure redevelopment at Aurora Square could be resources for future station subarea residents. For example, a grand public space is envisioned with redevelopment of the shopping center, which could become an important destination for subarea residents. Also the CRA plan calls for implementation of district energy and eco-district solutions. Infrastructure in N-NE 145th Street and/or N-NE 155th Street built for district energy conveyance could possibly be designed to extend to future customers in the station subarea. Good multimodal connections between Aurora Square/Shoreline Place and the station subarea will be important as planning, design, and implementation of redevelopment projects proceed. More information about the plan is available at: <http://www.cityofshoreline.com/business/aurora-square-community-renewal-area>.



Paramount School Park

THE FIRCREST CAMPUS

The Fircrest Campus is state-owned property that is not in the subarea, but located immediately to the east. Fircrest School, located at the campus, is a state-operated residential habilitation center for individuals with developmental disabilities. The Adult Training Program offers Fircrest residents vocational training and supported employment opportunities.

As with Aurora Square, redevelopment at the Fircrest Campus could offer land uses that are compatible and cohesive with the new redevelopment in the station subarea over time. However, any decisions about potential development on this campus would be up to the State, and entail a master planning process that would include extensive public involvement, and an act of the Legislature. The City is not considering any change in use or zoning regarding Fircrest as part of this subarea process.

NEIGHBORING COMMUNITIES

Within the City of Lake Forest Park located to the northeast and the City of Seattle located to the south of NE 145th Street, existing land uses are predominantly single family use, similar to Shoreline. Jackson Park Golf Course is located immediately south of NE 145th Street to the east of Interstate 5 (I-5), and Lakeside School is located immediately south of NE 145th Street to the west of I-5.

Existing Transportation Conditions

REGIONAL ACCESS

As a limited access freeway, classified as a highway of statewide significance, I-5 provides access from the mobility study area (see Figure 1-1) south to Northgate, the University District, Capitol Hill, and Downtown Seattle and beyond, as well as to Mountlake Terrace, Lynnwood, and points north. I-5 also connects with State Routes 522 and 523, providing access to Lake Forest Park and Bothell. Additionally, I-5 serves as the key corridor for express regional bus service in the area. The nearest access point to I-5 from the mobility study area is the NE 145th Street interchange, centrally located at the southern edge of the study area.

Limited Access Control Standards

WSDOT has full control of access to roadways within 300 feet of a freeway ramp terminal. In the case of the 145th Street Station, this is pertinent for 5th Avenue NE and the I-5 Northbound on-ramp. WSDOT policy states that any change to existing land use within this 300-foot boundary would need to be re-evaluated to determine if access can remain if the land use is changed.

Deviations from the policy would require the Federal Highway Administration, WSDOT, Sound Transit, and the City of Shoreline to determine an appropriate course of action. This may be a constraint to the development and access allowed directly adjacent to the station location. Access for parcels within this constrained area may need to reconfigure site access to 6th Avenue NE.

SUBAREA STREET NETWORK

SR 99/Aurora Avenue N is a managed access highway and is also classified as a highway of statewide significance. It serves as a principal arterial in Shoreline. It lies directly west of the study area, providing north-south mobility and business access along the corridor.

The principal arterials in the study area are N/NE 145th Street and 15th Avenue NE, which form the southern and eastern edges. NE 145th Street is a state highway (SR 523) from I-5 to SR 522. N/NE 145th Street is not located within the City of Shoreline. The northern half of the right-of-way is located in unincorporated King County and the southern half of the right-of-way is located in the City of Seattle. Minor arterials within the study area include Meridian Ave N, N/NE 155th Street and 5th Avenue NE. Figure 3-6 highlights the street classifications of the roadways within the study area. The proposed light rail station location is identified on the map immediately east of I-5 and north of NE 145th Street. The area is composed of a mostly gridded network. The non-arterial street grid is broken in many places by the presence of parks. Crossings of I-5 are limited, with the only east-west connections located along N/NE 145th Street and N/NE 155th Street.

EXISTING ROADWAY OPERATIONS

CONCURRENCY MANAGEMENT SYSTEM

The Washington State Growth Management Act (GMA) includes a transportation concurrency requirement. This means that jurisdictions must provide adequate public facilities and services to keep pace with a community's growth over time to maintain the Level of Service (LOS) goals stated in a community's comprehensive plan. The improvements can include capital improvements, such as intersection modifications, or other strategies such as transit service expansion or transportation demand management. As part of the process, a jurisdiction evaluates the operations of roadway segments or intersections in order to determine the relative impact from new development on the transportation network. The City of Shoreline has an adopted concurrency methodology to balance growth, congestion, and capital investment.

Table 3-1: Level of Service Criteria for Intersection and Roadway Analysis

LEVEL OF SERVICE (LOS)	SIGNALIZED INTERSECTION DELAY PER VEHICLE (SECONDS)	UNSIGNALIZED INTERSECTION DELAY PER VEHICLE (SECONDS)	ROADWAY SEGMENT VOLUME-TO-CAPACITY RATIO (V/C)
A	< 10	< 10	< .60
B	> 10 to 20	> 10 to 15	.60 - .70
C	> 20 to 35	> 15 to 25	.70 - .80
D	> 35 to 55	> 25 to 35	.80 - .90
E	> 55 to 80	> 35 to 50	.90 - 1.0
F	> 80	> 50	> 1.0

Source: 2010 Highway Capacity Manual and the 2011 City of Shoreline Transportation Master Plan

LEVEL OF SERVICE CRITERIA FOR INTERSECTIONS

A common metric to evaluate intersection operations is average seconds of delay per vehicle, which can be translated into a grade for Level of Service (LOS) as shown in **Table 3-1**. An additional metric is the evaluation of a roadway segment via the volume-to-capacity (V/C) ratio, which compares a roadway's vehicle demand against the theoretical capacity of that segment. These V/C ratios can also be translated into LOS grades as shown in the table. The LOS concept is used to describe traffic operations by assigning a letter grade of A through F, where A represents free-flow conditions and F represents highly congested conditions. As shown in **Table 3-3**, the City has adopted LOS D for signalized intersections on arterials, unsignalized intersecting arterials and roadway segments on Principal and Minor Arterials. WSDOT has a separate set of standards, which can also be referenced in **Table 3-3**. N/NE 145th Street is not subject to the City of Shoreline's LOS standards because it is not located within the City of Shoreline and is also a state highway between I-5 and SR 522. Existing street classifications are shown in **Figure 3-6**.

Table 3-2: Average Daily Traffic and PM Peak Hour Congestion for Existing Conditions

STREET	SEGMENT	AVERAGE DAILY TRAFFIC	PM PEAK HOUR VOLUME*	VOLUME-TO-CAPACITY RATIO
EAST-WEST CORRIDORS				
N/NE 145th Street*	West of I-5	25,240	1,331	0.81
NE 145th Street*	East of I-5	31,790	1,431	0.87
N 155th Street	West of I-5	11,640	538	0.60
NE 155th Street	East of I-5	9,900	486	0.61
NORTH-SOUTH CORRIDORS				
5th Avenue NE*	I-5 NB on-ramp to NE 155th Street	7,170	530	0.76
15th Avenue NE	NE 145th to NE 150th Street	16,130	1,038	0.52
15th Avenue NE**	NE 150th to NE 155th Street	14,240	881	0.73
Meridian Avenue N	145th to 155th Street	6,220	392	0.56

Source: 2011 City of Shoreline Transportation Master Plan and updated traffic counts from 2014

*Note that 145th Street and the portion of 5th Avenue NE between NE 145th Street and the I-5 northbound on-ramp is exempt from the City of Shoreline's concurrency standard due to being within WSDOT jurisdiction.

**The City allows a V/C ratio of 1.10 for 15th Avenue NE, between NE 150th Street and NE 175th Street due to rechannelization for operational safety.

Table 3-3: Level of Service Standards by Agency

AGENCY	LOS STANDARD
City of Shoreline	- LOS D for signalized intersections - LOS D for unsignalized intersecting arterials - V/C ratio of .90 (LOS D) for principal and minor arterials ²
City of Seattle	- LOS D (goal)
WSDOT	- LOS D for highways of statewide significance (HSS) - LOS E/mitigated for regionally significant state highways (non-HSS)

Source: 2010 Highway Capacity Manual and the 2011 City of Shoreline Transportation Master Plan

TRAFFIC VOLUMES

The existing conditions analysis uses data from the 2011 TMP update to describe current traffic operations and supplements it with more recent vehicle counts. Traffic counts were obtained from the City of Seattle, WSDOT, and the City of Shoreline and were also collected by the project team in July 2014. **Figure 3-7** and **Table 3-2** show existing traffic volumes and LOS values within the study area. N/NE 145th Street corridor has the highest east-west volume and carries over 30,000 vehicles per day. 15th Avenue NE is the busiest north-south corridor, with over 16,000 average daily trips (ADT). All segments in the study area in the City of Shoreline currently operate within City LOS standards.

INTERSECTION EVALUATION

During the PM peak hour, all intersections within the study area and under the City’s jurisdiction currently operate within the Shoreline LOS standards as shown in **Figure 3-8**. The most congested intersection is located at NE 145th Street and 15th Avenue NE, which operates at LOS E. While most intersections along N/NE 145th Street operate at LOS D or better, some individual movements experience higher levels of delay than an overall intersection LOS D would suggest. This includes the northbound left and westbound through movements at the NE 145th Street / 5th Avenue NE intersection.

COLLISION HISTORY

As shown in **Figure 3-9**, some intersections in the study area have a relatively high number of vehicle collisions; experiencing a crash rate above 1.0 per million entering vehicles (MEV). The intersection of N 145th Street and Meridian Avenue N averaged 12 collisions per year, or 1.39 collisions per MEV (col/MEV), with a high number of rear-end, left-turn, right-angle, and sideswipe collisions. NE 145th Street and 5th Avenue NE experienced 16 collisions per year, a rate of 1.18 col/MEV. NE 145th Street and 15th Avenue NE had 12 collisions per year, a rate of .90 col/MEV. With a high number of rear-end and right-angle collisions. Additionally, the unsignalized intersection of 5th Avenue NE and the I-5 Northbound on-ramp averaged 7 collisions per year, a collision rate of 1.37 col/MEV. All other intersections in the study area averaged fewer than 10 collisions per year. The collision rate for the entirety of the 145th Street corridor is 6.03 per million vehicle miles of travel, more than two and a half times higher than the 2010 Northwest Region average collision rate of 2.27 for Urban Principal Arterials.

Between 2011 and 2013, there were 15 pedestrian and bicycle collisions within the study area, with five of the collisions located along N/NE 145th Street. Five collisions occurred along N 155th Street while three were located along 15th Avenue NE.

EXISTING TRANSIT SERVICE

The transit coverage within the study area is provided by King County Metro and Sound Transit. **Table 3-4** details the current headways and destinations serviced by routes that traverse the area while **Figure 3-10** highlights the location of the routes.

There are many transit routes with service within and in the vicinity of the study area, both in the peak and off-peak time periods. Peak-period routes connect the study area with regional growth centers such as Downtown Seattle, the University of Washington, Northgate, Bellevue, and Redmond. All-day service is primarily provided along the north-

¹ Average delay at signalized intersections is based on all vehicles that approach the intersection. Average delay for unsignalized intersections is based on the delay experienced by vehicles at the stop-controlled approaches.

² Information provided by Lynnwood Link FEIS using collision data from 2008 to 2011



FIGURE 3-6: Street Classifications in the Subarea

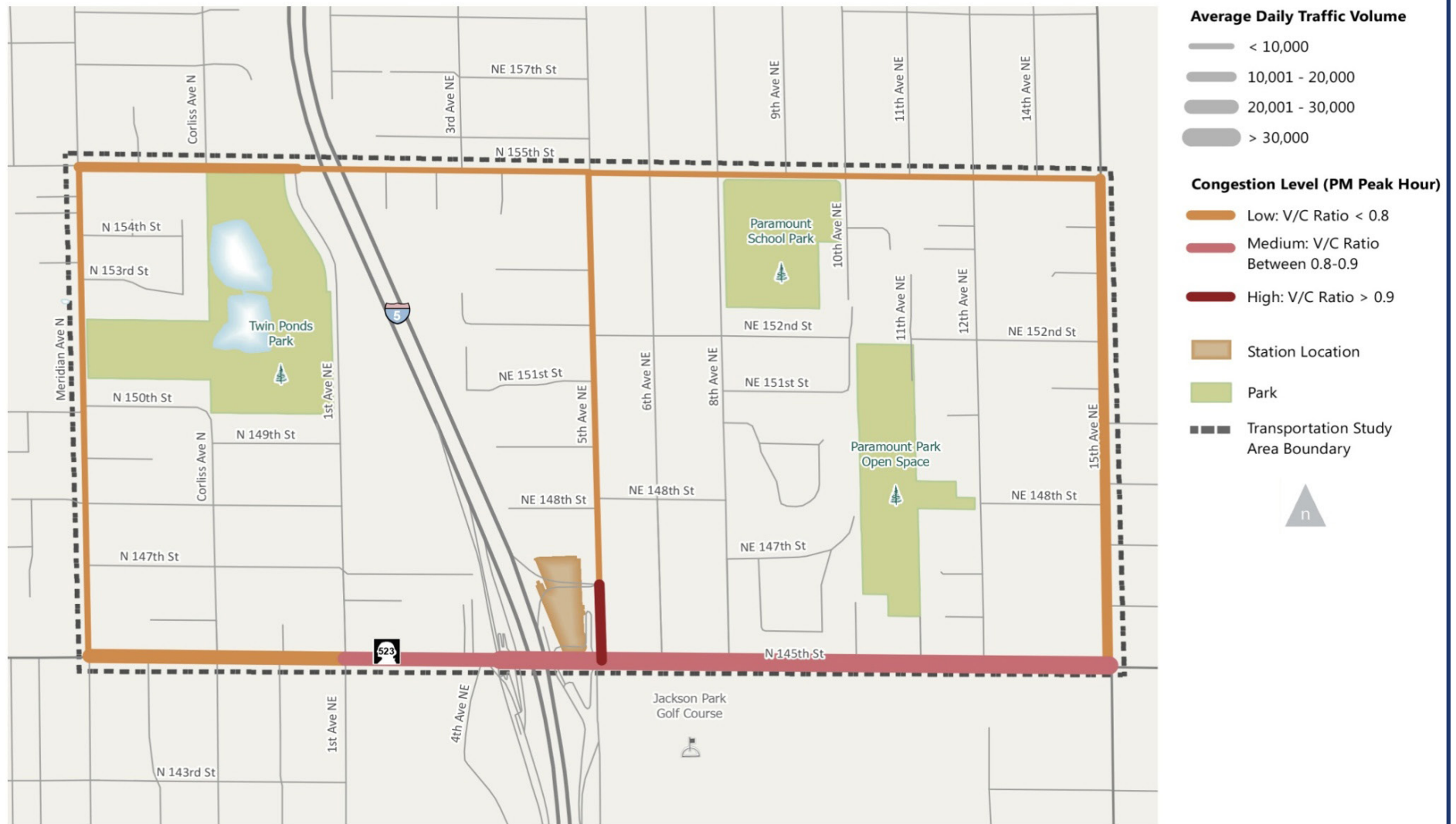


FIGURE 3-7: Average Daily Traffic and PM Peak Congestion (Existing Conditions)

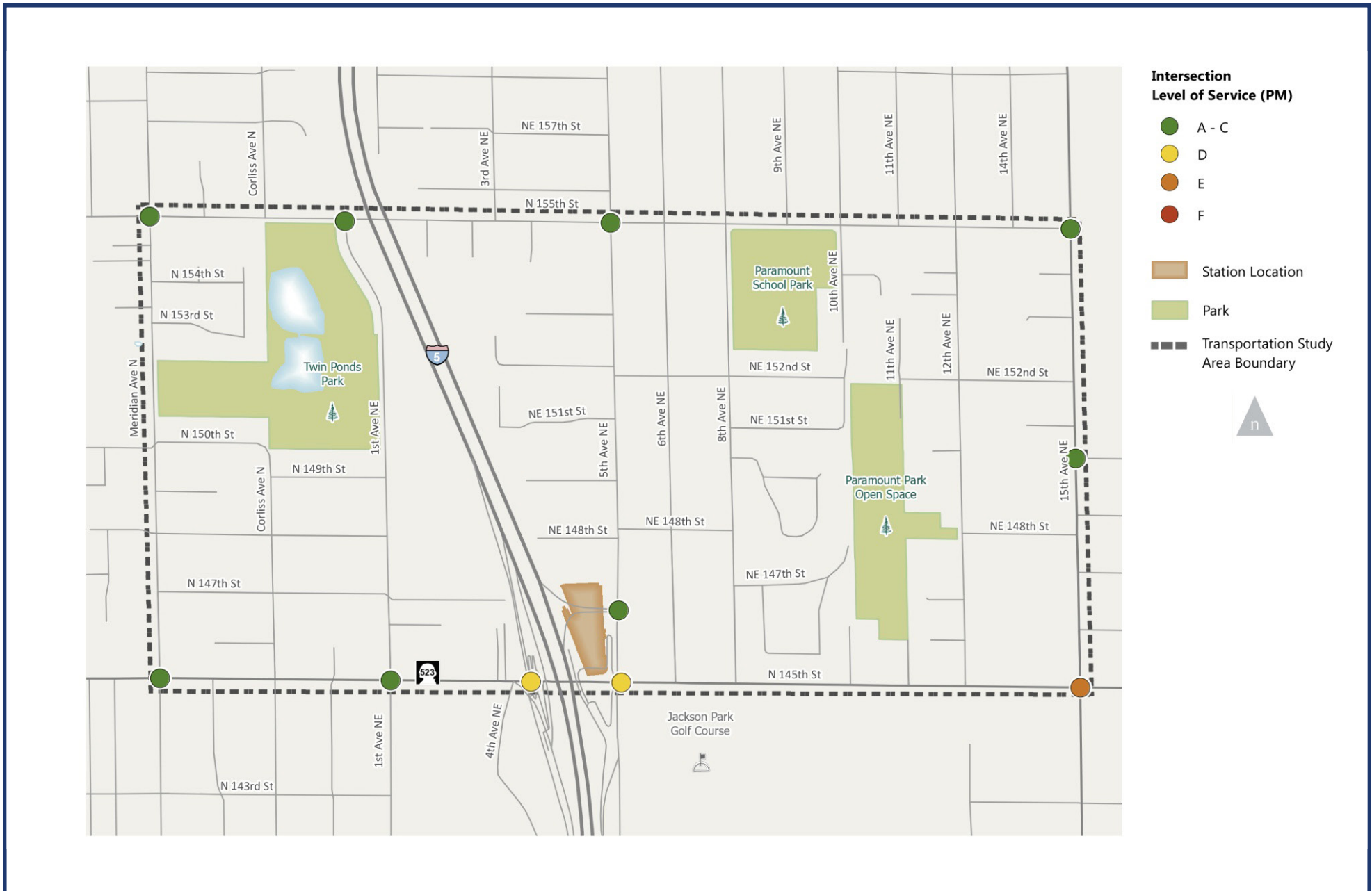


FIGURE 3-8: Intersection Level of Service (Existing Conditions)

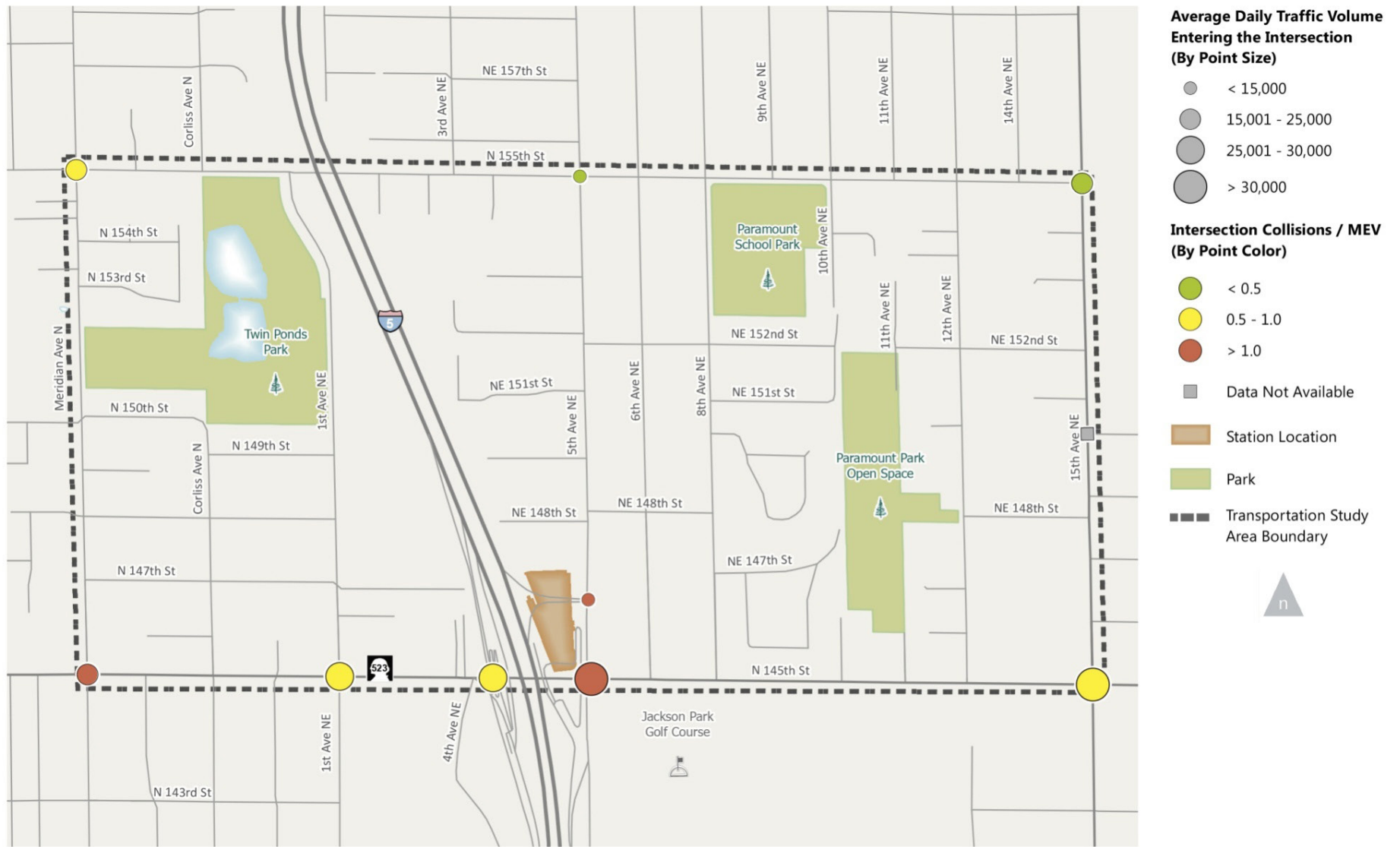


FIGURE 3-9: Accident Rate (Existing Conditions)

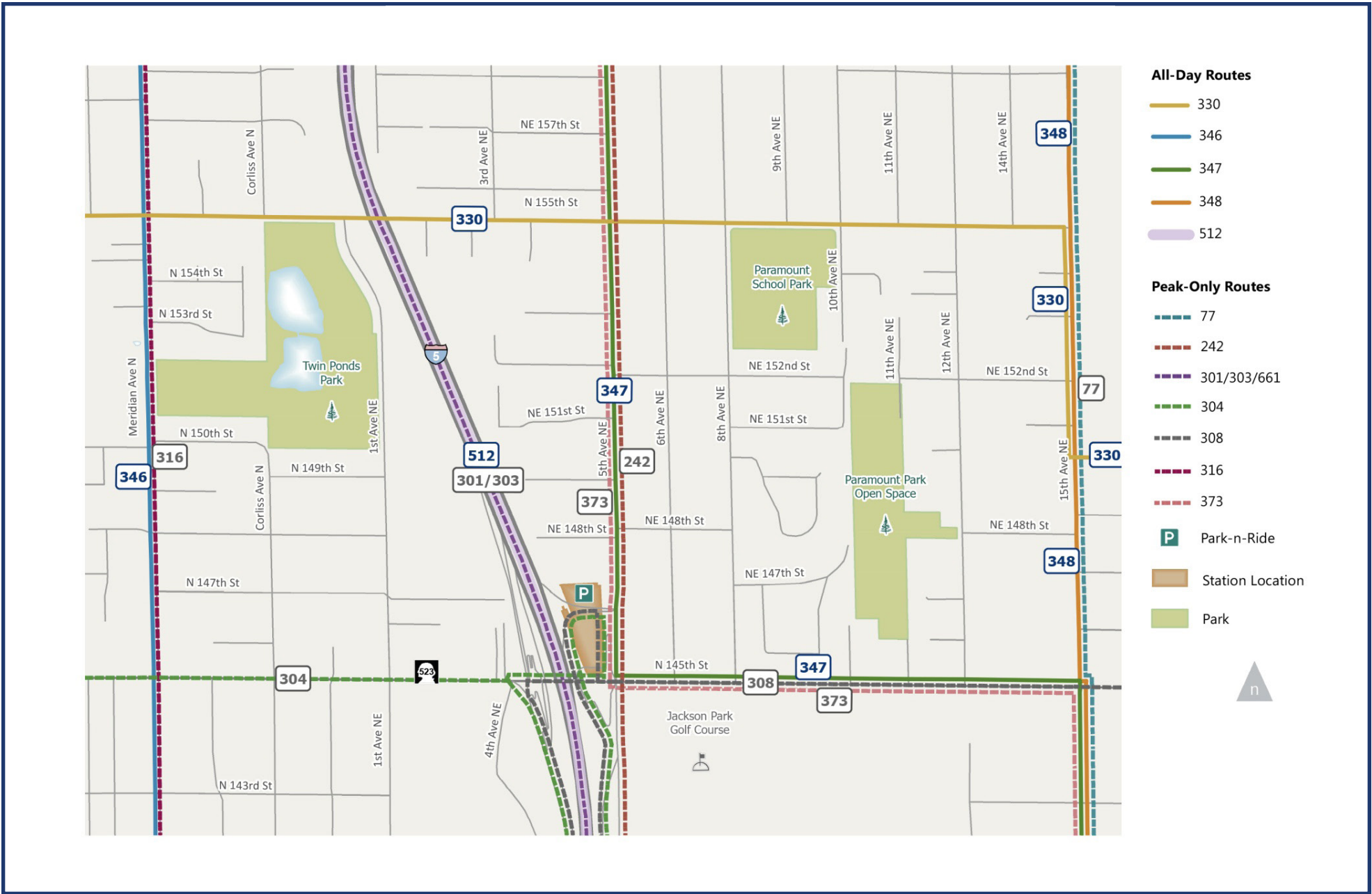


FIGURE 3-10: Existing Transit Service

Table 3-4 Existing Transit Service

ROUTE	WEEKDAY HEADWAYS (IN MINUTES)				DESTINATIONS SERVICED
	AM PEAK (6-9 AM)	MIDDAY	PM PEAK (3-6 PM)	EVENING	
ALL-DAY ROUTES					
KCM 330	60	60	60	60	Shoreline Community College, Lake City
KCM 346	30	30	30	60	Aurora Village, Meridian Park, Northgate
KCM 347	30	30	30	60	Northgate, Ridgecrest, North City, Mountlake Terrace
KCM 348	30	30	30	60	Richmond Beach, North City, Northgate
ST 512	15	15	15	15-30	Everett, Lynnwood, Mountlake Terrace, University District, Downtown Seattle
PEAK PERIODS					
KCM 77	15-25	-	15-30	-	North City, Maple Leaf, Downtown Seattle
KCM 242	30	-	30	-	Northgate, Ravenna, Montlake, Bellevue, Overlake
KCM 301*	15**	-	15**	-	NW Shoreline, Aurora Village, Shoreline Park and Ride, Downtown Seattle
KCM 303	15	-	15	60**	Shoreline Park and Ride, Aurora Village Transit Center, Meridian Park, Northgate, Downtown Seattle, First Hill
KCM 304	20-30	-	20-30	-	Richmond Beach, Downtown Seattle
KCM 308	30	-	30	-	Lake Forest Park, Lake City, Downtown Seattle
KCM 316	15-20	-	15-25	-	Meridian Park, Bitter Lake, Green Lake, Downtown Seattle
KCM 373	15	-	15	60**	Aurora Village Transit Center, Shoreline Park and Ride, Meridian Park, University District

Source: King County Metro, 2014

south corridors within the study area. Sound Transit provides all-day service from downtown Seattle to Lynnwood and Everett, with a stop at the NE 145th Street freeway station. However, this route does not serve the freeway station in the peak travel direction during the peak periods (i.e. there is no service at the southbound stop during the a.m. peak and there is no service at the northbound stop during the p.m. peak). There is no all-day east-west route that travels the entire length of the 145th Street corridor between Aurora Avenue and Lake City. The only east-west all day service in the study area is along N/NE 155th Street. While Sound Transit routes 510, 511, and 513 and a number of Community Transit routes pass by the study area along I-5, they do not stop at the 145th Street freeway bus station.

² Information provided by Lynnwood Link FEIS using collision data from 2008 to 2011

PLANNED TRANSIT SERVICE

While the City of Shoreline does not have direct control over the transit service within its borders, a number of conceptual modifications with light rail deployment are identified in the TMP and King County Metro’s Connect Long Range Plan. The TMP specifies that bus service be redirected to better connect to the station once service begins, especially along N/NE 145th Street. The City will be engaged with King County Metro and Sound Transit over the next two years as part of the development of a Transit Service Integration Plan. The Metro Connects Long Range Plan assumes that three high frequent routes and one Sound Transit Bus Rapid Transit route will serve the NE 145th Street Station by 2040. Additionally, the Lynnwood Link FEIS forecast 2,600-6,000 daily light rail station boardings at the NE 145th Street Station. The Lynnwood Link FEIS noted that long-distance/commuter bus routes near the 145th Street Station could be rerouted to connect with the light rail station as a transfer point in order to provide a faster and more frequent trip.

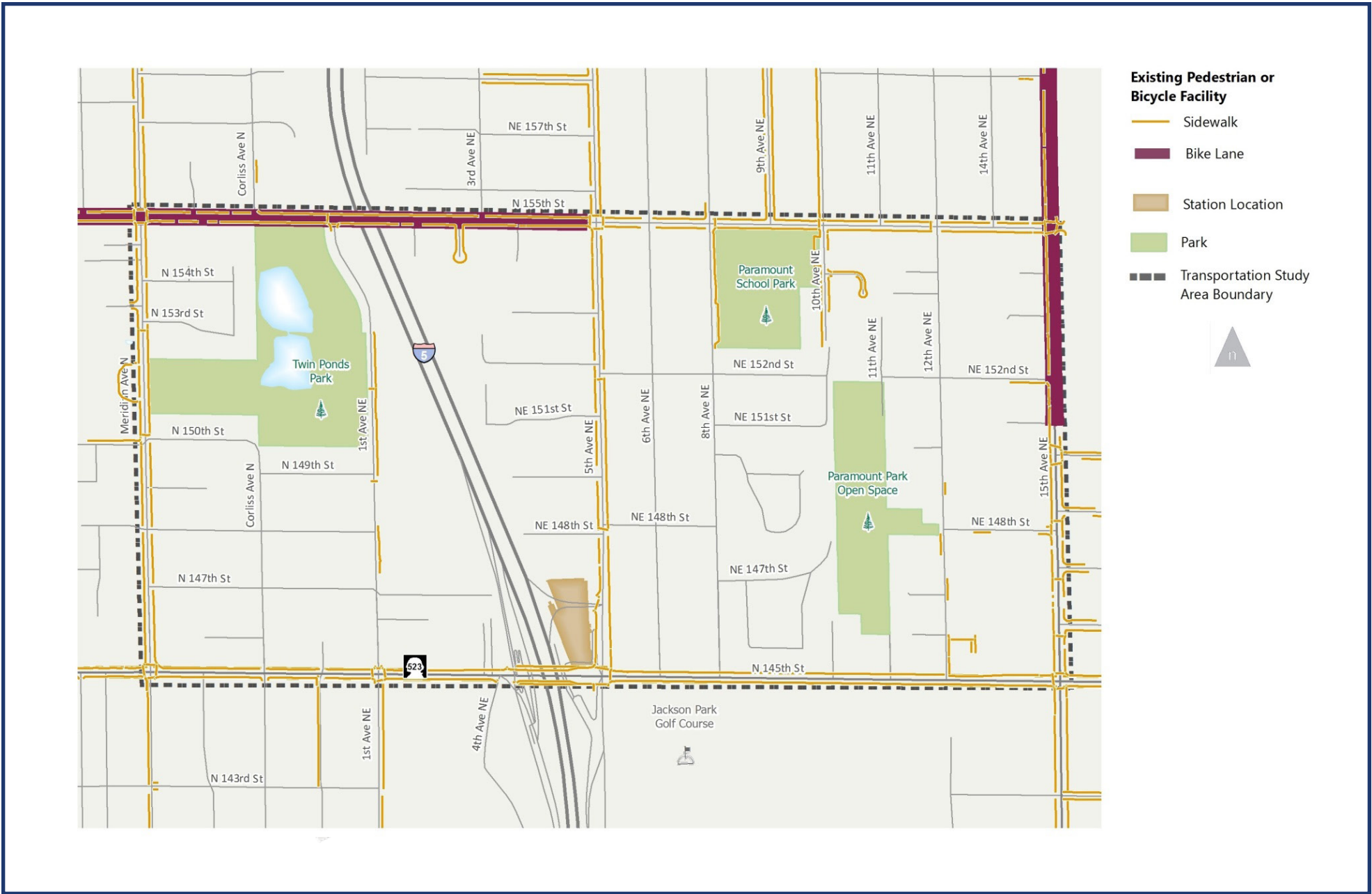


FIGURE 3-11: Existing Pedestrian and Bicycle Facilities

EXISTING ON-STREET PARKING CONDITIONS

A substantial portion of the mobility study area is residential in character and does not have on-street parking restrictions. Streets within the study area where parking is restricted include the main corridor of N/NE 145th Street, portions of 1st Avenue NE between N 145th Street and N 155th Street, 5th Avenue NE south of the I-5 northbound on-ramp, and 15th Avenue NE between NE 145th Street and NE 155th Street. The Lynnwood Link FEIS evaluated parking supply and utilization for an area within a quarter-mile of the proposed station. The study determined that there were 450 unrestricted on-street spaces and 350 off-street spaces in total with a utilization rate of 27 percent for the on-street spaces and 71 percent for the off-street locations. A later section on planned improvements provides a summary of the parking mitigation identified in the Lynnwood Link FEIS.

Due to the limitations of the midday evaluation and the geographic area covered, a qualitative assessment was conducted for the Shoreline 145th Street Station Subarea Plan FEIS during the periods in which residential on-street parking utilization is typically higher, such as evenings and weekends. Within the study area, there are approximately 1,950 on-street spaces available. Utilization was observed to be between approximately 10 percent and 20 percent for a majority of the non-arterial streets, with higher utilization of 20 and 30 percent observed along 6th Avenue NE.

PARK-AND-RIDE FACILITIES (EXISTING AND PLANNED)

King County Metro owns and operates the 68 space North Jackson Park park-and-ride lot at 14711 5th Avenue NE. This lot generally is 100% utilized. As part of the Lynnwood Link Extension Preferred Alternative, a 500 space parking garage will be located on the eastern edge of I-5 just north of NE 145th Street in the WSDOT right-of-way and the existing park-and-ride area. The Lynnwood Link FEIS assumed that the garage would be fully utilized during the daytime hours. During the PM peak hour, it was estimated that 180 vehicles would exit the garage and 45 would enter. During the AM peak hour, it was estimated that 200 vehicles would enter the garage and 50 would exit.

EXISTING PEDESTRIAN AND BICYCLE FACILITIES

Bicycle and pedestrian facilities are located sporadically throughout the mobility study area. **Figure 3-11** details the current sidewalk and bicycle infrastructure. Sidewalks exist on both sides of most arterial streets including Meridian Avenue N, 5th Avenue NE, 15th Avenue NE, N/NE 145th Street, and N/NE 155th Street. The quality and condition of these sidewalks varies throughout the subarea. The sidewalks along N/NE 145th Street are typically less than five feet wide, provide little buffer from heavy vehicle traffic, are in various states of repair, and are constricted by utility poles. The only existing bicycle facilities within the study area are on N/NE 155th Street between Meridian Avenue N and 5th Avenue NE, and on 15th Avenue NE between NE 150th Street and NE 155th Street (these facilities continue beyond the study area boundary). Currently there is not a direct bicycle connection to the proposed station site.

The neighborhoods within the subarea were primarily developed from the 1940s through the 1970s when the area was part of unincorporated King County. The street standards at that time did not require sidewalks, and as such, most of the non-arterial streets today do not have them. This is also true of bicycle lanes, which are not provided on non-arterial streets.

When the City of Shoreline incorporated in 1995, it assumed jurisdiction of the study area. The City works with the community to identify and prioritize capital transportation and infrastructure improvements throughout the city through development of the TMP, Transportation Improvement Plan (TIP), and Capital Improvement Plan (CIP).

I-5 presents a barrier for east-west bicycle and pedestrian travel, as there are only two crossings within the study area and they are approximately one-half mile apart. Bicycle lanes and sidewalks are present at N 155th Street. At the NE 145th Street interchange, the existing bridge has narrow, curbside sidewalks and no bicycle facilities. These minimal facilities, combined with heavy traffic volumes, the need for pedestrians to cross freeway on- and off-ramps, and limited north-south crossings, create an uncomfortable environment for pedestrians and bicyclists.

Data were collected mid-week in May 2012. Utilization was counted between 9 am and 11 am and between 1 pm and 4 pm. Observations were conducted December 2014 on a Sunday between 7 am and 8 am. King County Metro Park and Ride utilization report Second Quarter 2014. Vehicle volume estimates provided from the Lynnwood Link DEIS.



FIGURE 3-12: Bicycle System Plan from the Transportation Master Plan



FIGURE 3-13: Pedestrian System Plan from the Transportation Master Plan

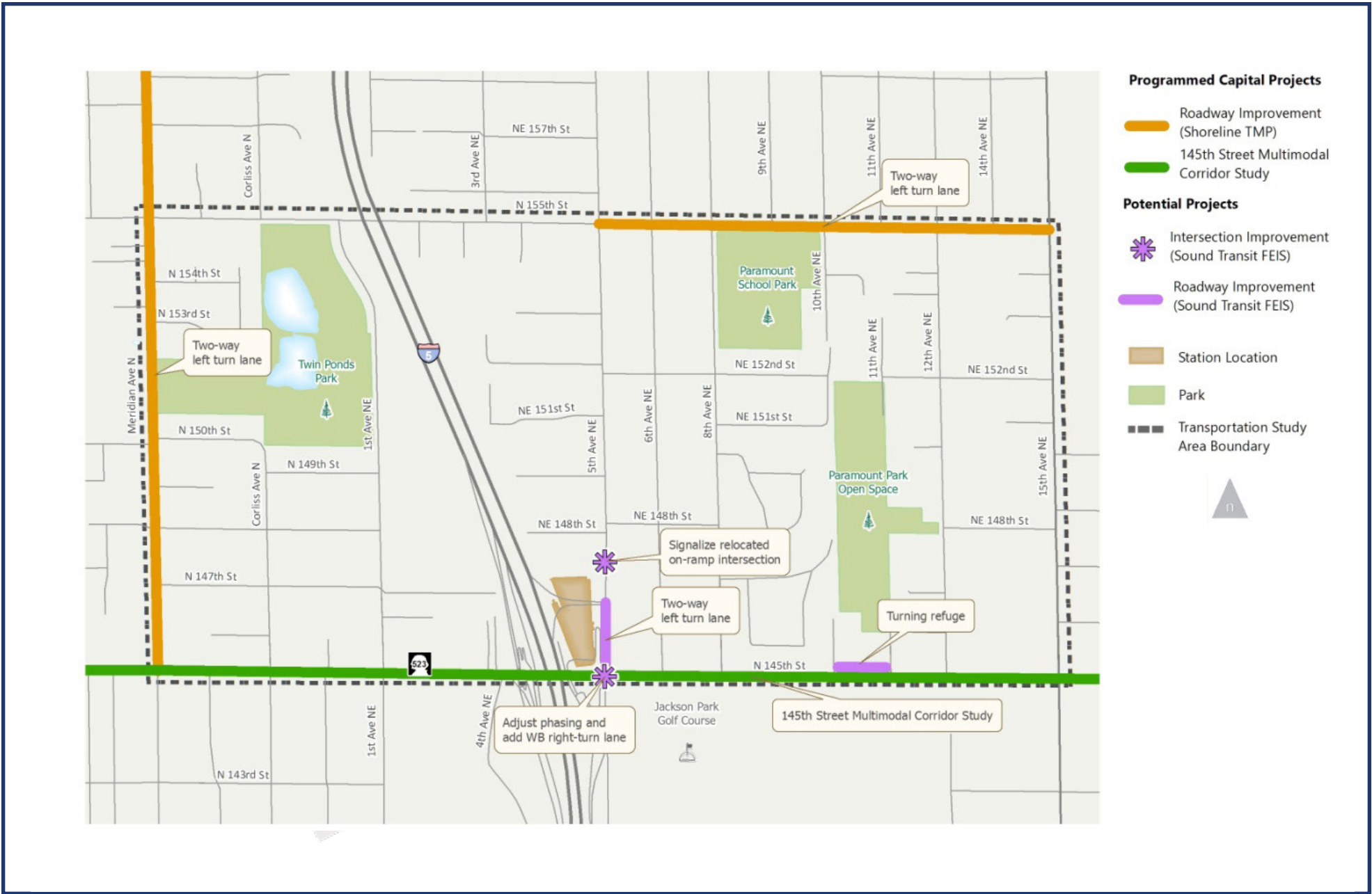
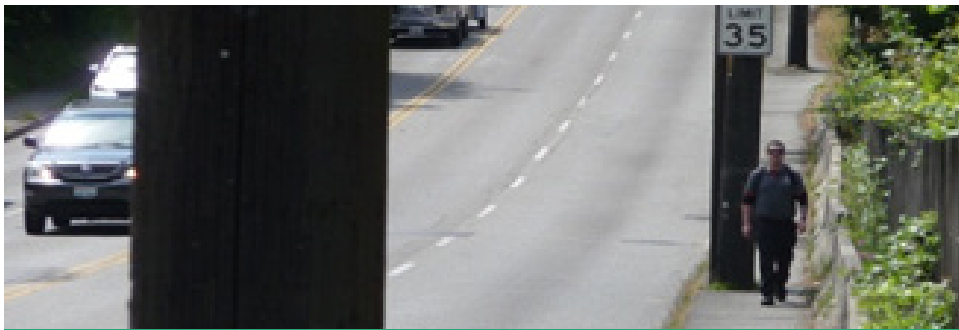


FIGURE 3-14: Roadway Improvements to Accommodate Growth Identified in the Transportation Master Plan



***Narrow and Non-ADA Compliant Sidewalk Facilities
Along NE 145th Street near 10th Avenue NE***

PLANNED MULTIMODAL TRANSPORTATION IMPROVEMENTS

PEDESTRIAN AND BICYCLE IMPROVEMENTS

The 2011 TMP identified a number of improvements to address the pedestrian and bicycle connectivity challenges described in the previous subsection. **Figure 3-12** highlights the planned bicycle improvements. **Figure 3-13** details the Pedestrian System Plan, as identified in the TMP. Within the study area, the Bicycle System Plan recommends adding bicycle lanes along 5th Avenue NE, Meridian Avenue NE, and an extension of the current bicycle lanes along NE 155th Street to 15th Avenue NE. The extension of the bicycle lanes on NE 155th Street east of 5th Avenue NE, as well as bicycle lanes on NE 150th Street between 15th Avenue NE and 25th Avenue NE are part of the Interurban / Burke-Gilman Trail Connectors project that is specified in the 2016-2021 Capital Improvement Program and scheduled for completion in 2016. Bicycle lanes along Meridian Avenue NE and 5th Avenue NE are scheduled for completion at a later date.

The Pedestrian System Plan specifies sidewalk facilities for the minor and collector arterials in the study area, including 1st Avenue NE, 5th Avenue NE, 15th Avenue NE, Meridian Avenue NE, and NE 155th Street. While several of these streets already have sidewalks, many do not comply with

the City's existing standards for materials, width and/or amenity zones. The 145th Street Multimodal Corridor study addressed sidewalk standards along N/NE 145th Street in addition to bicycle connections in the area. Details of this study are provided in a later section.

VEHICLE TRAFFIC IMPROVEMENTS

Figure 3-14 highlights projects identified in the TMP as well as in the Lynnwood Link FEIS that are needed to accommodate future planned growth and maintain the City's adopted transportation level of service standard. The TMP calls for the reconfiguration of Meridian Avenue N to allow for a two-way left turn lane from N 145th Street to N 205th Street. NE 155th Street would have a similar treatment, extending the current 3-lane profile from 5th Avenue NE to 15th Avenue NE. Potential traffic improvements listed in Sound Transit's Lynnwood Link FEIS related to a 145th Street station alternative are summarized below. It should be noted that the City of Shoreline has not agreed that these improvements are adequate mitigation for the proposed station.

- ▶ 5th Avenue NE: Two-way left-turn lane between NE 145th Street and the park-and-ride entrance along 5th Avenue NE
- ▶ 5th Avenue NE / I-5 northbound on-ramp: Relocate the on-ramp and intersection to the north of the proposed station parking garage and signalize the intersection
- ▶ NE 145th Street / 5th Avenue NE: Add a protected northbound right-turn phase. Add a protected westbound to northbound right-turn lane
- ▶ NE 145th Street / 12th Avenue NE: Add a short refuge area on NE 145th Street for eastbound approach

Additional improvements along N/NE 145th Street were identified in the 145th Street Multimodal Corridor Study and were incorporated into the transportation mitigation measures. Details of these improvements are included in a later section.

Existing Population and Trends

Shoreline's overall estimated population in 2015 was 55,439, based on information recently released by the US Census Bureau. Of the total population of Shoreline, an estimated 8,321 people live in the 145th Street Station Subarea (approximately 15.2 percent of the city's population).

Shoreline's population increased in the 1980s and 1990s, remained fairly stable between 2000 and 2010, but recently has started to increase. The city has grown an average of slightly under 1 percent per year since 2010 based on US Census Bureau estimations.

In review of the demographic composition of the population, two trends are occurring, including greater race/ethnic diversity and aging of Shoreline's population.

The largest minority population is Asian-American, composed of several subgroups, which collectively made up 15 percent of the population as of the 2010 Census. The African-American population, comprising 2,652 people, had the largest percentage increase, at 45 percent between 2000 and 2010, followed by people of two or more races, at 15 percent. Hispanics may be of any race, and this demographic increased 41 percent to 3,493. Additionally, foreign born residents of Shoreline increased from 17 percent of the population to an estimated 19 percent by 2010, as measured by the American Community Survey (ACS). By 2014 the ACS estimates these populations to be: Asian—7,880 (14.5 percent), Black/African American—3,171 (5.8 percent), two or more races—2,696 (5.0 percent), Hispanic/Latino—4,399 (8.1 percent).

The median age of community residents increased from 39 in 2000 to 42 in 2010 and dropped slightly to 41.5 by 2014. "Baby Boomers", those born between 1946 and 1964, comprise approximately 30 percent of the population. Shoreline has the second largest percent of people 65 and older among King County cities, at 15.8 percent. Among older adults, the fastest growing segment is people 85 and older, up one-third from 2000.

Families (two or more people related by birth, marriage, or adoption) declined from 65 percent to 61 percent of all households in Shoreline between 2000 and 2010. Non-family households increased from 35 percent to 39 percent of households. The number of people living in group quarters, such as nursing homes, adult family homes, and Fircrest increased by 9 percent between 2000 and 2010 based on the 2010 Census.

POPULATION GROWTH TRENDS AND FORECASTS

The central Puget Sound region is one of the fastest growing metropolitan areas in America. Seattle, Shoreline's neighboring city to the south, grew faster than any other major American city in 2013, according to the US Census Bureau, with approximately 18,000 people moving to the city in the one-year period. Seattle is the 21st largest city in the US. Seattle's growth rate from July 1, 2012 to July 1, 2013 was 2.8 percent, the highest rate among the 50 most populous US cities, bringing the total 2013 population to 652,405. From July 1, 2012 to July 1, 2013, the Seattle-Tacoma-Bellevue metropolitan area ranked tenth in numerical population growth of metropolitan areas of the US, adding 57,514 people. According to Puget Sound Regional Council's 2040 Transportation Plan, our region will add 1.4 million people and 1.1 million jobs by 2040.

Washington State's overall population was 7,061,400 as of April 1, 2016 and is forecasted to grow by just above 1 percent per year through 2025 and then at less than 1 percent per year through 2040 according to the Washington State Office of Financial Management.

In looking at growth rates of regional cities, communities in the Puget Sound region have grown at various rates, between less than 1 percent to about 3 percent annually between 2010 and 2013.

In a review of other transit-oriented districts around light rail and high-capacity transit in the US, growth rates have varied greatly. Average annual growth rates of around 2 percent are often achieved, but are influenced by a variety of factors.



Potential Housing Styles in the Subarea

Based on recent information released by the US Census Bureau, the 15 fastest growing cities in America with populations of 50,000 and larger (similar to Shoreline's size) grew between 3.8 percent (Pearland, Texas) and 8 percent (San Marcos, Texas) between 2012 and 2013.

ESTIMATED ANNUAL POPULATION GROWTH RATE FOR SUBAREA PLANNING PURPOSES

Given all of the above growth statistics, the estimated average annual growth forecasted for the subarea is around 1.5 percent to 2.5 percent. This is the assumed growth rate for purposes of subarea planning and environmental analysis.

Population, housing, and employment may grow faster or slower than the 1.5 to 2.5 percent annual growth rate in any given year, or for several consecutive years. With the potential adoption of one of the zoning alternatives as a planned action, the City of Shoreline would monitor growth levels to the thresholds defined in the planned action ordinance.

The opportunity and potential for growth in the 145th Street Station Subarea will be higher with the adoption of the proposed mixed use zoning. However, growth would be moderated by potential challenges related to redevelopment, such as the need to aggregate parcels to create

sites large enough for mixed use and multifamily housing. Uncertainty about the market and property owners' interests in redeveloping or selling their properties also moderates the forecast for growth.

CAPACITY BUILDING FOR THE FUTURE AND FOCUS OF THE PLANNED ACTION

Given challenges associated with smaller parcel sizes (and the correlating need to aggregate parcels), redevelopment to the capacity of the proposed zoning for the subarea would take many decades. The rezoning creates capacity for redevelopment over the long term for current and future generations of residents in the subarea. Rezoning also allows flexibility for redevelopment to occur in a variety of locations in the subarea based on property owners' interests and development market influences. The proposed zoning under the subarea plan sets the vision for what could occur over the long term. The plan also defines capital improvement needs and project priorities to support potential redevelopment over the next twenty years, which is the established planning horizon (see Chapter 7). The plan addresses anticipated phasing and locations of redevelopment and makes specific recommendations for public investment in the subarea to support this first stage of growth.

ASSIGNED GROWTH TARGETS FOR SHORELINE

The King County Countywide Planning Policies (CPPs), adopted to implement the Growth Management Act (GMA), establish housing unit growth targets for each jurisdiction within the county. Each target is the amount of growth to be accommodated during the 2006-2031 planning period. Shoreline's growth target for this period is 5,000 additional housing units; projected to 5,800 housing units by 2035 (200 housing units per year).

Applying Shoreline's current average household size of 2.4 people per residence, 5,800 new housing units equates to 13,920 new residents by 2035.

Another recent capacity target set by Puget Sound Regional Council (PSRC) calls for Shoreline to gain more than 7,200 new jobs by 2035, improving its jobs-to-housing ratio to 0.91. (Note: jobs-to-housing ratio and balance are discussed and defined later in this section.)

The City is required to plan for its assigned growth target and demonstrate that its Comprehensive Plan is able to accommodate the growth targets for housing units and employment. Sufficient land (zoning capacity) and strategies must be in place to show that there will be available housing and services for the projected population. The City of Shoreline has met these requirements through its Comprehensive Plan, which shows that growth targets can be met through housing and employment capacity, particularly along Aurora Avenue N.

Although the city has capacity to meet these growth targets with or without upzoning the station subarea, intensifying densities in proximity to the light rail station is "smart growth," consistent with regional goals and policies, as well as those adopted by the City. (See Chapter 6 for more information about smart growth principles.)

With more people living and working near high-capacity transit, Shoreline can better achieve the objectives of the Climate Action Plan and better meet the policies and provisions of the Comprehensive Plan and Transportation Master Plan. Adopted policies related to expanding



May 2014 145SCC Planning Workshop

housing and transportation choices and enhancing quality of life through better connectivity in the station subarea also can be realized.

Upzoning to create capacity for more residents and employees in proximity to high-capacity transit also will help to catalyze redevelopment and encourage higher rates of growth in the subarea than are currently being experienced citywide and regionally.

A review of growth rates over the last ten years shows that the City has only recently been barely keeping pace with the growth target of 200 housing units per year within the last couple of years and is not yet meeting the jobs/employment growth target range.

With adopting of upzoning or rezoning in the subarea, density would be added through various types of multifamily and transit-oriented development (mixed use buildings, condominiums, apartments, townhomes, etc.) allowed under the proposed MUR-70', MUR-45', and MUR-35' zoning categories. Attached single-family homes, cottage housing, accessory dwelling units, duplexes, triplexes, and other multiplexes would be expected to develop (within the proposed MUR-35' zoning), and these types of housing units would provide a transition between the more intensive density in the station vicinity and the traditional detached single family neighborhoods in outer areas.



Senior Living

With these new transit-supportive densities of housing and mixed use development are being proposed in the subarea, there will be growing pressure in the single family neighborhoods of the subarea and surrounding neighborhoods for additional housing units as more people seek to live near the station. That said, single family homes will continue to be a protected use in the subarea under any of the new zoning categories. Some homeowners may choose to maintain their homes in their current configurations, while others may renovate or redevelop their properties to maximize density.

REDEVELOPMENT POTENTIAL AND TIMING

The potential for growth and timing of redevelopment would be influenced by various factors in the subarea, including development market influences and individual property owner decisions on the use of their properties. Implementation of upzoning will maximize opportunities for future redevelopment, increase housing options and choices, and add a considerable amount of new jobs over time.

That said, redevelopment potential is influenced by parcel size. Most properties in the subarea are smaller sized single family lots that would need to be aggregated into larger parcels to create a site size suitable for redevelopment to the proposed zoning. There are church/

houses of worship parcels of larger size west of I-5 and north of 145th Street NE that would be suitable for additional growth in the near term, if property owners are interested in redeveloping and incorporating additional uses and development onto their site, or are willing to sell to an interested developer.

Because most properties within the subarea are smaller sized single family residential lots and would need to be aggregated, growth in the subarea would be anticipated to occur very gradually over many years. As an example, even if the higher average annual growth rate of 2.5 percent were to occur, it is estimated that it would take approximately 55 years to reach full build-out, and at a 1.5 percent average annual growth rate, it would take 87 years to reach full build-out of the proposed subarea zoning.

Existing and Planned Housing and Household Characteristics

Planning for expected growth requires an understanding of current housing and housing unit characteristics, as well as economic and market trends and demographics. A summary of the market assessment and economic trends is provided in Chapter 4 of this subarea plan. Below is a summary of current housing characteristics in Shoreline including conditions related to affordability. Much of the information presented is based on the supporting analysis in the 2012 Comprehensive Plan for the City of Shoreline, as well as more recent data.

COMPREHENSIVE HOUSING STRATEGY

The demand analysis and housing inventory developed to support the Housing Element of the 2012 Comprehensive Plan meets the requirements of the Growth Management Act (GMA) and Countywide Planning Policies (CPPs) and complements past planning efforts, including the City's Comprehensive Housing Strategy, adopted by Council in February 2008.

The Comprehensive Housing Strategy was the culmination of work by a Citizens Advisory Committee formed in 2006 to address the city's housing needs. The strategy contains recommendations for expanding housing choice and affordability while defining and retaining important elements of neighborhood character, educating residents about the importance and community benefit of increasing local choice and affordability, and developing standards to integrate a variety of new or different housing styles within neighborhoods.

SHORELINE AND SUBAREA HOUSING INVENTORY

Shoreline can be classified as a historically suburban community that is maturing into a more self-sustaining urban environment. Almost 60 percent of the current housing stock was built before 1970, with 1965 being the median year of home construction. Only 7 percent of homes (both single and multifamily) were constructed after 1999. Much of the housing stock is approaching 70 years of age and most is over 50 years old. More and more homeowners are either making substantial renovations to their homes or demolishing existing homes and replacing with new ones. This trend likely would continue absent upzoning in the subarea.

Over the last decade, new housing was created through infill construction of new single-family homes and townhouses, with limited new apartments in mixed-use areas adjacent to existing neighborhoods. Many existing homes were remodeled to meet the needs of their owners, contributing to the generally good condition of Shoreline's housing stock.

The characteristics of the subarea are consistent with those described for Shoreline overall, although the subarea has seen less infill construction and redevelopment activity than other areas of the city.



Example of Low Impact Development

QUANTITY OF HOUSING UNITS, TYPES, AND SIZES

Single-family homes are the predominant type of existing housing and encompass a wide range of options, which span from older homes built prior to WWII to new homes that are certified through the Leadership in Energy and Environmental Design (LEED) program. Styles range from expansive homes on large view lots to modest homes on lots less than one quarter acre in size. In the station subarea, the predominant single family lot size is 8,000 to 10,000 square feet (with some lots around 6,000 square feet). Although much of the existing zoning in the subarea is Residential, six units per acre (R-6), the current built density of the subarea is approximately 3.2 units per acre.

According to the 2014 ACS, there were 22,271 housing units within the City of Shoreline, an increase of 1,555 since 2000. About 65 percent of these housing units are detached single-family homes. Compared to King County as a whole, Shoreline has a higher percentage of its housing stock in single-family homes. See **Table 3-5**. In the 145th Street Station Subarea, including the TAZs associated with the subarea, it is estimated that there are currently 3,467 housing units based on data in the 2010 Census.



Affordable Housing at High Point in West Seattle

Table 3-5: Number of Dwelling Units and Percentage of Housing Types in Shoreline and King County

TYPE OF HOUSING	KING COUNTY		ROADWAY SEGMENT VOLUME-TO-CAPACITY RATIO (V/C)	
	UNITS	PERCENT	UNITS	PERCENT
2010 Total	851,261		22,787	
1 Unit	494,228	58.06%	16,290	71.49%
2+ Units	338,645	39.78%	6,422	28.18%
MH/TR/Spec	18,388	2.16%	75	0.33%
2015 Total	893,275		23,330	
1 Unit	506,079	56.65%	16,358	70.12%
2+ Units	369,051	41.31%	6,898	29.56%
MH/TR/Spec	18,145	2.04%	74	0.32%

Source: American Community Survey 2008-2012

Table 3-6: Average Household Size

	1980	1990	2000	2010
Shoreline	2.7	2.5	2.5	2.4
King County	2.5	2.4	2.4	2.4

Source: 1980 Census, 1990 Census, 2000 Census, 2010 Census

While the number of housing units increases in Shoreline each year, population levels show a potential trend toward a decrease in the number of people per household. This is consistent with national trends. However, overall in King County, household size has remained stable since 1990 (see **Table 3-6**). Shoreline's existing average household size is 2.4 people per dwelling unit.

In Shoreline, the average number of bedrooms per unit is 2.8. Only 16 percent of housing units have less than 2 bedrooms. This compares with 21 percent of housing units with less than 2 bedrooms in King County. With larger housing units and a stable population, overcrowding has not been a problem in Shoreline.

The US Census reported only 1.6 percent of housing units with an average of more than one occupant per room, and no units that averaged more than 1.5 occupants per room (American Community Survey 2008-2010).

DEFINITION AND MEASURE OF HOUSING AFFORDABILITY

The generally accepted definition of affordability is for a household to pay no more than 30 percent of its annual income on housing. When discussing levels of affordability, households are characterized by their income as a percent of the Area Median Income (AMI). The box above highlights information pertaining to affordable housing metrics in Shoreline. **Figure 3-14** shows wage/income levels for various professions.

SPECIAL NEEDS HOUSING AND HOMELESSNESS GROUP QUARTERS

Group quarters, such as nursing homes, correctional institutions, or living quarters for people who are disabled, homeless, or in recovery from addictions are not included in the count of housing units reported above. According to the 2010 Census, about 2.6 percent of Shoreline's population, or 1,415 people, live in group quarters. This is a slightly higher percentage than the 1.9 percent of King County residents living in group quarters. Fircrest in Shoreline, one of five state residential habilitation centers for people with developmental disabilities, provides medical care and supportive services for residents and their families. In 2011, Fircrest had about 200 residents. This reflects a decline from more than 1,000 residents 20 years ago, as many residents moved into smaller types of supported housing, such as adult family or group homes.

FINANCIALLY ASSISTED HOUSING

As shown in **Table 3-7** financially assisted households for low- and moderate-income individuals and families exist in the City of Shoreline.

In addition to this permanent housing, King County Housing Authority provided 566 vouchers to Shoreline residents through the Section 8 federal housing program, which provides housing assistance to low income renters (City of Shoreline Office of Human Services, 2012).



Example of Housing in Mixed-use Development

Table 3-7: Assisted Household Inventory

PROVIDER	UNITS
King County Housing Authority	669
HUD Subsidized Units	80
Tax Credit Properties**	272
Total	1,021

Source: City of Shoreline Office of Human Services, 2012

*** The Low Income Housing Tax Credit program was created by Congress through the passage of the Emergency Low Income Housing Preservation Act, 1987. When the tax credits expire, these properties may be converted to market rate housing.*

HOMELESSNESS

According to the Shoreline School District, 376 students experienced homelessness during the 2014-2015 school year. According to the 2016 King County One Night Count of homeless individuals, 138 people were found living on the streets in the north of King County.

Affordable Housing Metrics for Shoreline

To understand affordability metrics, percentages of Area Median Income (AMI) are calculated. For example, The 2011 AMI for Shoreline was \$66,476. Therefore, a household with that income would be making 100 percent of median; a household that made 50 percent of that amount (\$33,238) would be classified at 50 percent AMI; a family making 30 percent of that amount (\$19,943) would be classified at 30 percent AMI.

Families that pay more than 30 percent of their income for housing are considered “cost-burdened” and may have difficulty affording necessities such as food, clothing, transportation, and medical care.

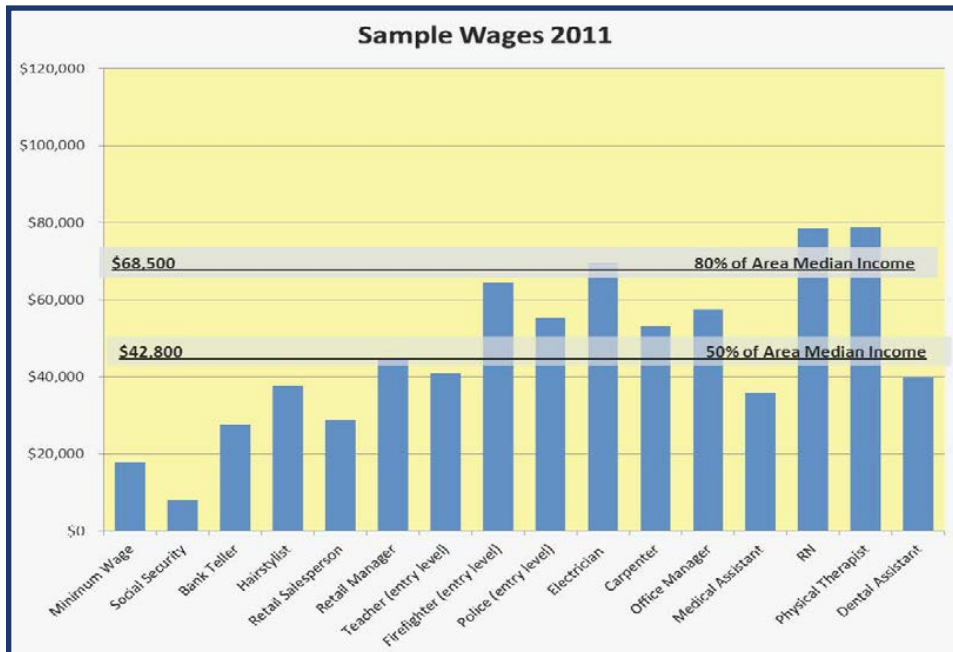


FIGURE 3-14: Income Levels/Sample Wages of Various Professions

Emergency and Transitional Housing Inventory

Five emergency and transitional housing facilities provide temporary shelter for their current maximum capacity of 49 people in the City of Shoreline. These facilities focus on providing emergency and transitional housing for single men, families, female-headed households, veterans, and victims of domestic violence. These facilities are listed in **Table 3-8**.

HOUSING TENURE AND VACANCY

Historically, Shoreline has been a community dominated by single-family, owner-occupied housing. More recently, homeownership rates have been declining. Up to 1980, nearly 80 percent of the housing units located within the original incorporation boundaries were owner-occupied.

In the 1980s and 1990s a shift began in the ownership rate. The actual number of owner-occupied units remained relatively constant, while the number of renter-occupied units increased to 32 percent of the city’s occupied housing units in 2000, and nearly 35 percent in 2010. This shift was mainly due to an increase in the number of multifamily rental units in the community. Refer to **Table 3-9**.

Table 3-8: Emergency and Transitional Housing Inventory

LOCATION	NO. OF OCCUPANTS	FOCUS
Caesar Chavez	6	Single Men
Wellspring Project Permanency	14	Families
Home Step Church Council of Greater Seattle	4	Female Head-of-Household
Shoreline Veterans Center	25	Veterans
Confidential Domestic Violence Shelter	6	Victims of Domestic Violence

Source: City of Shoreline Office of Human Services, 2012

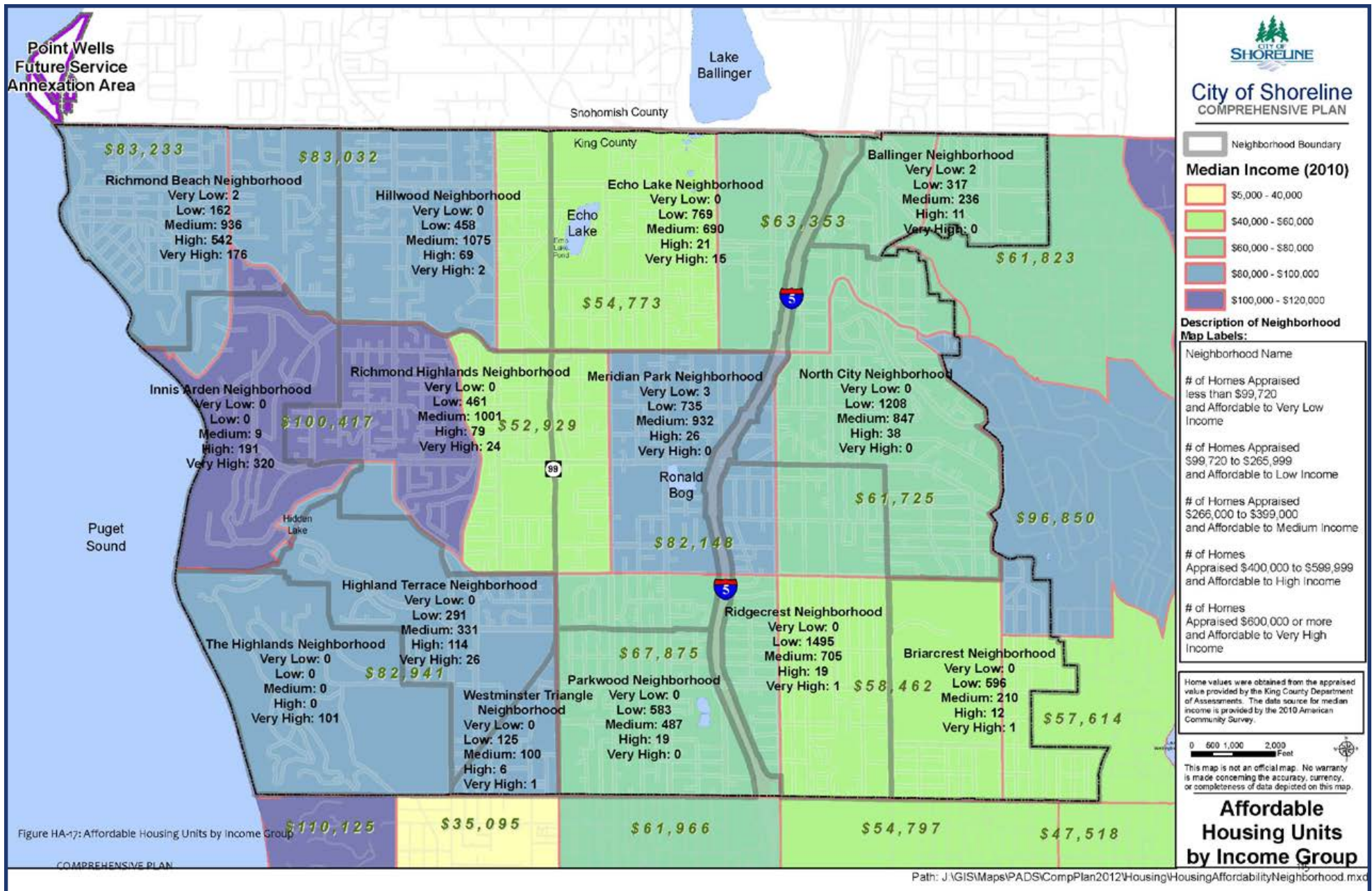


FIGURE 3-15: Affordable Housing Units by Income Group in Shoreline

Table 3-9: Housing Inventory and Tenure

	2000	2010	CHANGE 2000 TO 2010
Total Housing Units	21,338	22,787	+1,449
Occupied Housing Units	20,716	21,561	+845
Owner-Occupied Units	14,097 68% of Occupied	14,072 65.3% of Occupied	14,072 65.3% of Occupied
Renter-Occupied Units	6,619 32% of Occupied	7,489 34.7% of Occupied	+870 13.1% Increase
Vacant Units	622 2.9% of Total	1,226 5.4% of Total	+612 99.7% Increase

Source: City of Shoreline Office of Human Services, 2012

A substantial increase in vacancies from 2000 to 2010 may partially be explained by apartment complexes, such as Echo Lake, that had been built but not yet occupied during the census count, or by household upheaval caused by the mortgage crisis. More recent data indicates that vacancies are declining.

HOUSING DEMAND AND AFFORDABILITY

Housing demand is largely driven by economic conditions and demographics. Demographic characteristics influence market demand with regard to number of housing units; household size, make-up, and tenure (owner vs. renter); and preference for styles and amenities. For instance, young singles and older people may prefer smaller units with goods, services, and transit within walking distance as opposed to a home on a large lot that would require additional maintenance and car ownership. It is important for Shoreline to have a variety of housing styles to accommodate the needs of a diverse population.

In 2014, about 61 percent of households were family households (defined as two or more related people), down from 65 percent in 2000. Approximately 30 percent were individuals living alone, an increase from 26 percent in 2000. The remaining 9 percent were in nonfamily households where unrelated individuals share living quarters. Households with children decreased from 33 percent of households in 2000 to 27.4 percent of households in 2014. Single-parent families also decreased from 7.4 percent to 6.9 percent of households, reversing the previous trend of increasing single-parent families. Shoreline now has a lower percentage of households with children than King County as a whole, where households with children account for about 29 percent of all households, down from 30 percent in 2000. **Table 3-10** summarizes the changing characteristics of households.

A CHANGING COMMUNITY

As previously mentioned, Shoreline’s population is becoming more ethnically and racially diverse. In 2000, 75 percent of the population was white (not Hispanic or Latino). By 2010, this percentage dropped to 68 percent and rose slightly to 69.9 in 2014. Shoreline’s changing demographic characteristics may impact future housing demand. Newer residents may have different cultural expectations, such as extended families living together in shared housing. The increase in the number of singles and older adults in the community suggests that there is a need for homes with a variety of price points designed for smaller households, including accessory dwelling units or manufactured housing.

Demographic changes may also increase demand for multifamily housing. Such housing could be provided in single-use buildings (townhouses, apartments, and condominiums), or in mixed-use buildings. The need for housing in neighborhood centers, including for low and moderate income households is expected to increase. Mixed use developments in central areas close to public transit would allow for easier access to neighborhood amenities and services, and could make residents less dependent on autos.

Table 3-10: Changing Household Characteristics in Shoreline

	2000	2010	CHANGE 2000 TO 2010
Total Households	20,716	21,561	+845
Households with Children	6,775 32.7% of Total	6,015 27.9% of Total	-760 11.2% Decrease
Single-Person Households	5,459 26.5% of Total	6,410 29.7% of Total	+951 17.4% Increase
Households w/an Individual over 65	4,937 23.8% of Total	5,509 25.6% of Total	+572 11.6% Increase

Source: 2000 Census; 2010 Census

THE NEED FOR AFFORDABLE HOUSING

The GMA requires CPPs to address the distribution of affordable housing, including housing for all income groups. The CPPs establish low and moderate income household targets for each jurisdiction within the county to provide a regional approach to housing issues, and to ensure that affordable housing opportunities are provided for lower and moderate income groups. These affordable housing targets are established based on a percent of the City’s growth target.

The CPPs more specifically state an affordability target for moderate income households (earning between 50 percent and 80 percent AMI) and low-income households (earning below 50 percent AMI). The moderate-income target is 16 percent of the total growth target, or 800 units. The low income target is 22.5 percent of the growth target, or 1,125 units. Of the current housing stock in Shoreline, 37 percent is affordable to moderate-income households and 14 percent is affordable to low income households.

Assessing affordable housing needs requires an understanding of the economic conditions of Shoreline households and the current stock of affordable housing. Estimated percentage of households at each income level is presented in **Table 3-11**.

AFFORDABILITY GAP

The “affordability gap” is the difference between the percentage of city residents at a particular income level and the percentage of the city’s housing stock that is affordable to households at that income level. A larger gap indicates a greater housing need. **Table 3-12** depicts the affordability gap. Since 2010, housing prices have been growing more rapidly than wage growth, further widening Shoreline’s affordability gap.

Table 3-11: Households by Income Level in Shoreline and King County

	SHORELINE	KING COUNTY
Very Low Income <30% AMI	3,154 (15%)	53,784 (13%)
Low Income 30% to 50% AMI	2,580 (12%)	52,112 (11%)
Moderate Income 50% to 80% AMI	3,665 (17%)	76,279 (16%)
80% to 120% AMI	4,443 (21%)	97,116 (19%)
>120% AMI	7,520 (35%)	216,821 (41%)

Source: 2008-2010 American Community Survey; King County Comprehensive Plan

Table 3-12: Affordability Gap

	SHORELINE	KING COUNTY
Very Low Income <30% AMI	825 (3.9%)	11%
Low Income 30% to 50% AMI	2,116 (10%)	2%
Moderate Income 50% to 80% AMI	4,886 (23%)	N/A
80% to 120% AMI	6,367 (30%)	N/A
>120% AMI	7,520 (35%)	216,821 (41%)

Source: King County Comprehensive Plan

* Vacant units are not included in the analysis, since the affordability of vacant units is unknown.



Examples of Multifamily Housing

Where affordability gaps exist, households must take on a cost burden in order to pay for housing. Cost-burdened households paying more than 30 percent of household income for housing costs comprise 39 percent of homeowners and 48 percent of renters in Shoreline. Very low income cost-burdened households are at greatest risk of homelessness and may be unable to afford other basic necessities, such as food and clothing. The substantial affordability gap at this income level suggests that the housing needs of many of Shoreline's most vulnerable citizens are not being met by the current housing stock. Closing this gap requires the use of innovative strategies to provide additional new affordable units and the preservation/ rehabilitation of existing affordable housing. In order to assess the relative status of housing affordability in the city, comparison cities in King County were selected based on number of households and housing tenure. Two cities (Sammamish and Mercer Island) with few renters were selected for comparison, along with two cities (Kirkland and Renton) with a higher proportion of renting households. To compare Shoreline to these cities and to King County, the number of households in each income group countywide was compared to the number of households affordable at each income level. **Table 3-13** shows the comparison of affordability gaps in these communities to Shoreline's.

Figure 3-15 shows Affordable Housing Units by Income Group in a map that shows multiple factors related to housing affordability in various Shoreline neighborhoods, and this complexity warrants a description that is not included with other maps. The map shows average household income levels of various neighborhoods by census tract. For each neighborhood, there is also a list that begins with the name of the neighborhood, and displays the number of houses with assessed values that are considered affordable to various income groups. To be affordable, mortgage and expenses, such as property tax, should not exceed 30 percent of the annual household income. The price range for housing affordable for each income group is listed in the legend.

To provide an example, in the Meridian Park Neighborhood, one of the neighborhoods of the station subarea, the average household income in 2010 was \$82,148. Within that neighborhood, there were 3 homes appraised below \$99,720, which is the price a very low income household can afford without exceeding 30 percent of their income. There were 735 homes appraised between \$99,720 and \$265,999, which is the price a low income household can afford without exceeding 30 percent of their income.

RISING HOME VALUES

As in much of the rest of the country, home prices in Shoreline fell during the Great Recession years, but started to rise again in late 2012. Prices have continued to increase and have even recently surpassed their pre-recession high of \$375,300 in June of 2007. The April 2016 median sale price for Shoreline was \$447,700, an increase from the 2007 high of 19 percent. The rapid increase in home values puts increasing pressure on households in Shoreline, and widens the affordability gap for prospective buyers.

A SEGMENTED MARKET

There has historically been a large discrepancy in the value of homes in the city's various neighborhoods. **Table 3-14** presents 2010 data extracted from home sales records used by the King County Assessor to assess the value of homes in various sub-markets within the city (the Assessor excludes sales that are not indicative of fair market value). Since home prices have risen dramatically in recent years, the market may be less segmented than in the past, but increasingly expensive or out of reach for many Shoreline households



Affordable Housing in Bend, Oregon

Table 3-13: Comparison of Affordability Gap

	VERY LOW INCOME AFFORDABILITY GAP	LOW INCOME AFFORDABILITY GAP	MODERATE INCOME AFFORDABILITY GAP	80% TO 120% AMIFORDABILITY GAP
Sammamish	12.1%	9.6%	10.1%	2.1%
Mercer Island	10.1%	8.9%	6.0%	6.7%
Shoreline	8.6%	1.2%	N/A	N/A
Kirkland	9.9%	4.9%	N/A	N/A
Renton	8.8%	N/A	N/A	N/A
King County	8.4%	N/A	N/A	N/A

Source: King County Comprehensive Plan

* Discrepancy between tables results from use of Countywide household data for comparison with other cities and King County.

Table 3-14: Single Family Housing Prices

NEIGHBORHOOD AREA	MEDIAN SALE PRICE, 2010	AFFORDABLE INCOME LEVEL*	AVERAGE CHANGE IN ASSESSED VALUE, 2010-2011
West Shoreline	\$500,000	>120% of AMI	-2.1%
West Central Shoreline	\$341,500	115% of AMI	-6.0%
East Central Shoreline	\$305,000	100% of AMI	-6.9%
East Shoreline	\$290,000	100% of AMI	-5.2%

Source: King County Assessor, 2011 Area Reports, 2011 HUD Income Levels

* Figures given are the percent of 2011 typical family Area Median Income (AMI) required to purchase a home at the 2010 median price. Affordable housing costs are based on 30% of monthly income. Figures are approximate. Additional assumptions were made in the affordability calculation.

Table 3-15: Shoreline Area Rental Market Rents and Vacancy Rates

	2008	2009	2010	2011	2012	2013	2014	2015
Average Rent	\$897	\$977	\$949	\$934	\$966	\$1,026	\$1,070	\$1,161
Percent Change from Previous Year		+8.9%	-2.9%	-1.6%	+3.4%	+9.8%	+4.3%	+8.5%
Market Vacancy*	2.7%	4.6%	7.1%	5.0%	4.0%	2.3%	1.9%	1.6%

Source: Dupree+Scott, The Apartment Vacancy Report

* Market Vacancy excludes units in lease-up and those undergoing renovation.

GMA AND REGIONAL POLICIES SUPPORTING AFFORDABLE HOUSING

The Washington State Growth Management Act (GMA) and regional plans include policies for housing. The GMA specifically states that its housing goal is to:

"Encourage the availability of affordable housing to all economic segments of the population of this state, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock."

King County CPPs also encourage affordable housing and the use of innovative techniques to meet the housing needs of all economic segments of the population, and require that the City provide opportunities for a range of housing types.

The City's Comprehensive Housing Strategy, adopted in 2008, recommended increasing affordability and choice within local housing stock in order to accommodate the needs of a diverse population. Demographic shifts, such as aging "Baby Boomers" and increasing numbers of single-parent or childless households create a market demand for housing styles other than a single-family home on a large lot.

Puget Sound Regional Council (PSRC) administers the Growing Transit Communities Partnership (GTC). In accordance with the goals of the PSRC and GTC, high-capacity station areas should consider adopting the affordable housing policies and provisions stated in PSRC's VISION 2040. A few are included below, for the full list, read their report, available at: <http://www.psrc.org/growth/growing-transit-communities/growing-communities-strategy/read-the-full-growing-transit-communities-strategy/>

MPP-H-1 Provide a range of housing types and choices to meet the housing needs of all income levels and demographic groups within the region.

MPP-H-2 Achieve and sustain — through preservation, rehabilitation, and new development — a sufficient supply of housing to meet the needs of low income, moderate-income, middle-income, and special needs individuals and households that is equitably and rationally distributed throughout the region.

MPP-H-3 Promote homeownership opportunities for low-income, moderate income, and middle-income families and individuals.

CITY OF SHORELINE AFFORDABLE HOUSING POLICIES AND REQUIREMENTS

Chapter 20.40.230 of the Development Code currently includes provisions for affordable housing. These provisions were revised through adoption of the 185th Street Station Subarea Plan. In addition, the City has developed draft policies for the subarea that address affordable housing needs, including direction for further implementation work to develop programs. These policies, Development Code provisions, and development standards related to housing and mixed use development in the subarea are summarized in Sections 3.1 and 3.2 of the FEIS.

In May 2015, the Housing Development Consortium of Seattle-King County awarded the City of Shoreline the Municipal Champion Award for its leadership in supporting affordable housing opportunities in Shoreline and across the region. The award recognizes the City's efforts to create an equitable community through tools like incentive zoning and impact fee exemptions for affordable housing that were adopted through the 185th Street Station Subarea Plan. These same regulations would apply to the 145th Street Station Subarea, including many incentives and requirements to build affordable units within developments or pay into a housing trust fund to support development of local affordable housing options. The City intends to continue to work with regional organizations and local non-profits to provide greater affordability over time.

DRAFT