CITY COUNCIL AGENDA ITEM

CITY OF SHORELINE, WASHINGTON

AGENDA TITLE:	Discussion of the Light Rail Station Subareas Parking Study			
DEPARTMENT:	Public Works			
PRESENTED BY: ACTION:	Kendra Dedinsky, City Traffic Engineer Ordinance Resolution Motion X_ Discussion Public Hearing			

PROBLEM/ISSUE STATEMENT:

Anticipating the increased demand for on-street parking resulting from the start of light rail service and from increased density around the light rail stations, the Shoreline City Council allocated \$25,000 annually from 2018 through 2021 to obtain baseline parking utilization information, identify current and anticipated future on-street parking capacity challenges, and identify tools to manage parking now and into the future within the light rail subareas. A baseline study of on-street parking capacity and utilization has now been completed and includes information about:

- Existing parking laws, codes, policies and practices;
- Common parking management tools;
- On-street parking demand projections; and
- Recommended near-term, mid-term, and long-term strategies to manage parking demand.

Highlights from the Light Rail Station Subareas Parking Study (Attachment A) will be presented at tonight's meeting. In addition, staff is seeking Council direction on some near-term recommended actions including:

- Additional study and potential adoption of code updates to set City of Shorelinespecific monetary penalties for parking violations; and
- Dependent on monetary penalty code updates and financial analysis, establishing a dedicated parking enforcement position with the 2021-2022 biennium budget.

RESOURCE/FINANCIAL IMPACT:

There are no direct additional financial or resource impacts at this time. Additional parking capacity and utilization data will continue to be gathered in 2020 and 2021, as funded under the Traffic Services budget. No additional resource is needed at this time to carry out the near-term recommendations described.

RECOMMENDATION

No action is required; this item is discussion only. However, staff is seeking Council direction to further study potential municipal code updates to set parking violation

monetary penalties specific to City of Shoreline. Staff recommends updating the monetary penalties prior to the 2021-2022 budget process to inform potential funding for a dedicated parking enforcement position.

Approved By: City Manager **DT** City Attorney **MK**

BACKGROUND

Anticipating the increased demand for on-street parking resulting from the completion of light rail stations and from increased density around the light rail stations, the Shoreline City Council allocated \$25,000 annually from 2018 through 2021 to obtain baseline parking utilization information, identify current and anticipated future on-street parking capacity challenges, and discuss tools to manage parking now and into the future within the light rail subareas.

To better understand existing on-street parking conditions in Shoreline and anticipate future needs, opportunities and challenges, the Light Rail Station Subareas Parking Study includes discussions of the following topics:

- Existing parking laws, codes, policies and practices;
- Common parking management tools;
- Existing subarea on-street parking capacity and utilization data;
- On-street parking demand projections; and
- Recommended near-term, mid-term, and long-term strategies to manage parking demand.

While the focus of this study is on-street parking in City rights of way, some discussion of on-site (off-street) parking standards is provided and accounted for in future projections, as there is an obvious and important connection between the two.

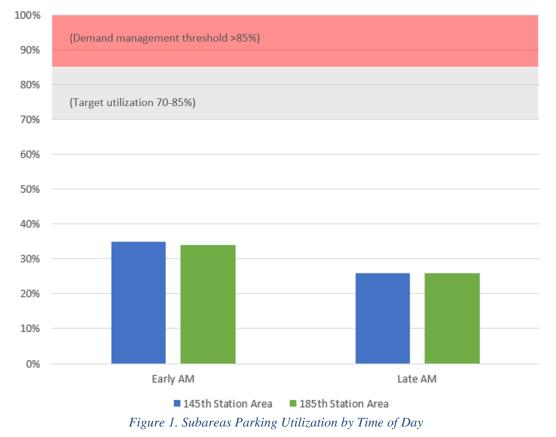
DISCUSSION

The following information provides a high-level summary of the Light Rail Station Subareas Parking Study (Attachment A) and discusses resulting highlights and recommendations.

Demand

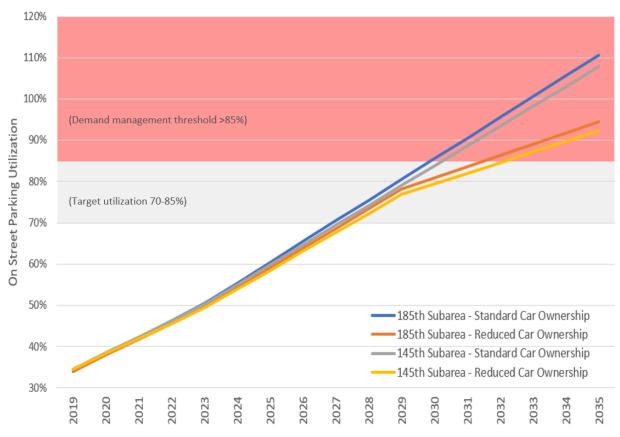
Thorough on-street parking capacity and utilization data collection and analysis was performed for the 145th and 185th Light Rail Station Subareas, extending approximately ¼ mile beyond the rezoned boundaries. For context, the target for on-street occupancy is set at 70-85% consistent with industry standards. Occupancy lower than this represents a City asset with underutilized capacity; an unbalanced cost in terms of maintenance and operations of the asset. At utilization over 85%, demand management strategies such as metering are typically used to ensure 1-2 open spaces per block can be found.

Figure 1 on the next page shows a summary of parking utilization data collected for both subareas for the two time periods. In general, the current subarea parking supply shows a significant surplus of parking on the vast majority of streets within and surrounding the subareas. Out of 365 total street segments, only 38 were shown to be over 70% capacity (excluding streets with less than five vehicle capacity). In nearly every case where a street's use is over 70%, a nearby street with lower parking rates is available within 1000 feet or less.



Subareas Parking Utilization by Time of Day

According to the most recent US Census Data, in King County, an average of two (2) vehicles per household are available. Using this information, in conjunction with existing household data, year 2035 household thresholds, code requirements for on-site parking for new construction (including reductions allowed when light rail stations are operating), and existing on-street parking capacity/utilization data, it is possible to broadly estimate future on-street parking demand. Even in the more conservative scenarios shown in Figure 2 on the next page, occupancy is not expected to exceed 70% within the next five years when considering the subareas as a whole. In addition, projections show that installation and use of parking meters is likely not feasible until 2029 or beyond, as 85% is commonly used as the threshold for parking meter feasibility. If parking utilization is lower than 85%, meters may not recoup the costs associated with installation, operations, and maintenance. With additional parking and household data gathered over the next two years, projections can be further calibrated and refined to focus on smaller geographic areas where more imminent action may be needed or viable.



On-Street Parking Demand Projections by Year and Rate of Car Ownership

Figure 2. On-street Parking Demand Projections by Year and Rate of Car Ownership

These projections do not account for the parking demand that will be generated by the start of light rail service. To deter "hide-and-ride" parking, which should be discouraged given negative environmental and community impacts, significant expansion to the City's Restricted Parking Zone (RPZ) program is likely needed prior to the start of service. The Light Rail Station Subareas Parking Study will help to inform additional required Sound Transit study and mitigation efforts.

Management

The primary groups involved in parking management on City of Shoreline rights of way are Traffic Services, the Code Enforcement and Customer Response Team (CECRT), and the Shoreline Police Department.

Based on each group's role in managing parking and the data each group tracks, there is a clear uptick in parking-related workload over the last few years, primarily responsive to resident complaints or requests. Parking restriction signs are being added at an average increase of over 8% annually with nearly 140 new parking signs anticipated to be installed in 2019. Similarly, parking tickets issued in 2018 were nearly double the amount issued in 2017, with a total of 985.

At the same time, the current monetary penalty for parking violations is generally less than the cost to process them; representing an increased cost to the general fund if number of violations issued continues to rise. Additionally, there is no clear relationship between budget allocation and staff time necessary to provide consistent customer service around parking management representing a gap that will expand as need increases in the subareas.

Recommendations

In consideration of existing and projected on-street parking utilization data, as well as impending study and mitigation efforts by Sound Transit, the following represent some basic near-term (0-5 year) recommendations staff will pursue:

- 1. Continue to utilize basic time of day and load zone parking restrictions as needed.
- 2. Update RPZ policies, procedures and fees to prepare for anticipated new RPZ's surrounding the two light rail stations.
- 3. Use existing study data to inform the Engineering Development Manual Street Matrix update process.
- 4. Explore potential development code updates to encourage or incentivize reduced car ownership.
- 5. Consider updating Transportation Master Plan policies around parking specific to land use context.

Staff is also seeking Council direction on two recommendations for which additional indepth discussion would occur at a later date, before potential adoption or approval. These include:

6. Monetary Penalty Code Updates

Parking violations currently represent a cost to the City as monetary penalties are lower than the cost of processing the tickets through King County District Court. At a minimum, staff recommends setting City-specific monetary penalties to offset the cost of processing tickets. In addition to decreasing the cost to the City's general fund however, consideration should also be given to how penalties could offset the costs of much needed dedicated enforcement staff now and into the future. If directed by Council, staff will study this item and bring information back to Council for discussion and potential adoption prior within the next year.

7. Dedicated Enforcement Staff

Based on existing shortages in enforcement resource in comparison to current demand, and in anticipating future demand, staff recommends funding a parttime parking enforcement position in the 2021-2022 biennium budget. A dedicated parking position would help to address current demand and would prepare the City for major impacts anticipated with the start of light rail service. Funding for this position could be offset by monetary penalty code updates, if adopted.

In the five to 10 year range, staff recommends:

1. Potential implementation of special use zones for ride-share and ride-hail services.

- 2. Establishing basic real time parking information technology at light rail stations.
- 3. Dependent on actual growth, performing a feasibility analysis of metered parking in key locations.

In 10 or more years, staff recommends:

- 1. Implementing metered parking in key locations, dependent on growth and feasibility/financial analysis.
- 2. Expanding real time parking information systems, depending on market demand.

RESOURCE/FINANCIAL IMPACT

There are no direct additional financial or resource impacts at this time. Additional parking capacity and utilization data will continue to be gathered in 2020 and 2021, as funded under the Traffic Services budget. No additional resource is needed at this time to carry out the near-term recommendations described.

RECOMMENDATION

No action is required; this item is discussion only. However, staff is seeking Council direction to further study potential municipal code updates to set parking violation monetary penalties specific to City of Shoreline. Staff recommends updating the monetary penalties prior to the 2021-2022 budget process to inform potential funding for a dedicated parking enforcement position.

ATTACHMENTS

Attachment A – Light Rail Station Subareas Parking Study



City of Shoreline

Light Rail Station Subareas Parking Study October 2019

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Introduction

In 2008, voters approved the Sound Transit 2 (ST2) package to extend light rail service north to Lynnwood, known as the Lynnwood Link Extension. This plan called for two light rail stations in Shoreline, on the east side of Interstate 5 at NE 145th and 185th Streets, anticipated to be operational by 2024.

To strategically and responsibly plan for growth in the light station areas, where demand for increased housing and business can occur near high capacity transportation, Shoreline began planning for zoning changes in neighborhoods surrounding both future stations in 2011. Over the next few years, the City and community developed plans to address land use, transportation, park, and other needs to accommodate projected growth in these areas. In March 2015 and September 2016, new zoning designations were established in the vicinity of the 185th Street station and the 145th Street station respectively. Zoning designation maps are provided as <u>Appendix A</u>.

Anticipating the increased demand for on-street parking resulting from the opening of light rail stations and from increased density around the light rail stations, Shoreline City Council allocated \$25,000 annually from 2018 through 2021 to obtain baseline parking utilization information, identify current and anticipated future on-street parking capacity challenges, and discuss tools to manage parking now and into the future within the light rail subareas. Study areas are shown in <u>Appendix B</u>.

King County's Right Size Parking site offers a great explanation of Why Parking Matters:

"The supply and use of parking are influenced by—and have influences on—development practices, local policies, economic impacts on builders and households, and community goals. The supply and price of parking also have direct relationships with travel behavior. Too much parking at residential properties correlates with more automobile ownership, more vehicle miles traveled, more congestion, and higher housing costs. In addition, excess parking presents barriers to smart growth and efficient transit service.

Parking supply and pricing often have a direct impact on the ability to create compact, healthy communities. King County Metro Transit has an interest in encouraging land uses, policies, and development that lead to communities that can be served efficiently and effectively by transit. Locally credible and context-sensitive data on parking use allows jurisdictions in King County to:

- » Support economic development by reducing barriers to building multifamily residential developments in urban centers near quality transit infrastructure.
- » Reduce housing costs as well as household monthly expenditures, allowing a larger demographic to participate in the urban, infill housing market.
- » Encourage transit use, ridesharing, biking, and walking.
- » Reduce traffic congestion, vehicle miles traveled, and the amount of greenhouse gases produced."

For these reasons, this study takes stock of existing on-street conditions and provides context for decision making on this important topic into a rapidly changing future around light rail stations in Shoreline.

Scope

To better understand existing on-street parking conditions in Shoreline and anticipate future needs, opportunities and challenges, this study includes discussions of the following components:

- 1) Existing parking laws, codes, policies and practices
- 2) Common parking management tools
- 3) Existing subarea on-street parking capacity and utilization data
- 4) On-street parking demand projections
- 5) Recommended near-term, mid-term, and long-term strategies to manage parking demand

This study only addresses motor vehicle parking and does not include information about bicycle or other types of unlicensed vehicle parking. The focus of this study is on-street parking in City rights-of-way, however some private property parking discussions are included as there is an obvious and important connection between the two.

Definitions

Hide and Ride parking is when spillover traffic from a trip generator, such as a rail station, parks on nearby residential streets.

Junk Vehicle means a vehicle certified under RCW 46.55.230 as meeting at least three of the following requirements:

a) is three years old or older;

b) is extensively damaged, such damage including but not limited to any of the following: A broken window or windshield, or missing wheels, tires, motor, or transmission;

c) Is apparently inoperable including a condition which makes the vehicle incapable of being operated legally on a public highway;

d) Has an approximate fair market value equal only to the approximate value of the scrap in it;

Layover is the time allotted between scheduled trips for various purposes, such as an operator break, schedule recovery time if the preceding trip was late, or at a time point within a trip. Layover stops are locations where an operator parks a bus to take a break and/or waits until the beginning of the next scheduled trip. These are non-boarding bus stops that are not designed to serve passengers

Load Zones

Truck Load Zones – Used primarily for business deliveries of product, merchandise, or other objects. Restricted to vehicles licensed as trucks. Variable in length depending on types of trucks used.

Load/Unload Zones – Expeditious drop-off and load/unload of people and goods from private vehicles. Usually installed for businesses with rapid turnaround time (a dry cleaner for instance).

Passenger Load Zones – Quick passenger pick-up and drop-off. Driver should remain in vehicle.

Metered parking is a parking tool that is effective when time limit signs are not effective. Often free onstreet parking is full by people parking their cars in a place for up to 2 or 4 hours and then moving their cars to another location to avoid having to pay for parking. Metered parking is easier to enforce than signed parking restrictions.

Restricted Parking Zone (RPZ) - is an area in a residential neighborhood where there is a need to help ease parking congestion caused by significant non-residential parking generators, such as schools,

hospitals, arenas, or light rail stations for example. An RPZ involves the posting of parking time limits or restrictions from which residents are exempt if a valid permit is displayed in a registered vehicle.

Safety zone - the area or space officially set apart within a roadway for the exclusive use of pedestrians and which is protected or is marked or indicated by painted marks, signs, buttons, standards, or otherwise, so as to be plainly discernible.

Time limited parking signs are used to maximize the amount of time allowed to park. Time limit parking supports business needs by providing parking turnover for customers. Short term parking serves a maximal number of people in a limited amount of curb space, a situation that improves the economic vitality of an area. Time limits are set to reflect an average shopping or business visit in an area.

Parking Laws and Codes

Shoreline Municipal Code 10.05 generally adopts Washington Model Traffic Ordinance (Chapter 308-330 WAC) with some amendments, setting the legal framework for motor vehicle parking in public rights-of-way. Applicable Washington Model Traffic Ordinance parking sections include the following:

- <u>308-330-406</u> RCW sections adopted—Abandoned, unauthorized, and junk vehicle tow truck operators.
- <u>308-330-408</u> RCW sections adopted—Traffic laws, signs, signals, markings.
- <u>308-330-409</u> Traffic control devices required—Stopping, standing, and parking.
- <u>308-330-430</u> Obedience to angle-parking signs or markings.
- <u>308-330-433</u> Parking not to obstruct traffic.
- <u>308-330-436</u> Parking for certain purposes unlawful.
- <u>308-330-439</u> Standing in passenger loading zone.
- <u>308-330-442</u> Standing in loading zone.
- <u>308-330-445</u> Standing in a tow-away zone.
- <u>308-330-448</u> Violating permits for loading or unloading at an angle to the curb.
- <u>308-330-451</u> Standing or parking on one-way roadways.
- <u>308-330-454</u> Stopping, standing, and parking of buses and taxicabs regulated.
- <u>308-330-457</u> Restricted use of bus stops and taxicab stands.
- <u>308-330-460</u> Right-of-way for parking.
- <u>308-330-462</u> RCW sections adopted—Stopping, standing, and parking.
- <u>308-330-600</u> Parking meter spaces.
- <u>308-330-610</u> Parking meters—Deposit of coins and time limits.
- <u>308-330-620</u> Parking meters—Use of slugs prohibited.
- <u>308-330-630</u> Tampering with parking meter.
- <u>308-330-640</u> Parking meters—Rule of evidence.
- <u>308-330-650</u> Parking meters—Application of proceeds.
- <u>308-330-660</u> Service parking.
- <u>308-330-720</u> Citation on illegally parked vehicle.
- <u>308-330-730</u> Failure to comply with traffic citation attached to parked vehicle.
- <u>308-330-740</u> Presumption in reference to illegal parking.

Section 308-330-462 of the Washington Model Traffic Ordinance adopts RCW 46.61.570 which describes most of the parking regulations drivers should know. Shoreline's parking regulations are consistent with State RCW 46.61.570 with some additional restrictions included per SMC 10.05.030. The complete *Stopping, standing, and parking* regulations as they apply to Shoreline are provided in <u>Appendix C</u>.

Shoreline Municipal Code 10.05 also includes some amendments to WAC regarding *Abandoned, unauthorized, and junk vehicle tow truck operators* (WAC 308-330-406 which adopts RCW 46.55.010) and amendments to WAC regarding *Removal by police officer – Definition* (WAC 308-330-406 which adopts 46.55.113). The complete RCW language with SMC amendments is shown in <u>Appendix D</u>.

Shoreline Development Code 20.50 Subchapter 6 establishes the standards for parking, access, pedestrian and vehicular circulation, and bicycle facilities as follows:

"A. To ensure that the parking and circulation aspects of all developments are well designed with regards to safety, efficiency and convenience of vehicles, bicycles, pedestrians, and transit.

B. To provide convenient and safe access to all buildings and adequate parking for all developments.

C. To reduce demand for parking by encouraging alternative means of transportation, including public transit, rideshare, and bicycles.

D. To promote efficiency through reductions in the number of parking stalls, shared driveway access and shared parking facilities.

E. To assure safe, convenient, efficient and adequately sized parking facilities.

F. To increase pedestrian mobility and provide safe, pleasant and direct pedestrian access. (Ord. 238 Ch. V § 6(A), 2000)."

The King County Right Size parking research generally informed recent updates to the City's on-site parking standards. This tool:

"lets users estimate parking in the context of a specific site based on a model using current local data. The calculator's estimates are based on a model developed from field work data on parking utilization collected in 75 building in 2017, in addition to the 208 buildings collected in the winter and spring of 2012 on over 200 developments in urban and suburban localities in King County, Washington (Seattle and its suburbs)."

SMC Chapter 20.50 Subchapter 6, which describes minimum on-site parking requirements, is included as <u>Appendix E</u>.

Common Parking Management Tools

The following section provides an overview of common parking management tools and practices used by local agencies.

Time of Day / Day of Week Restrictions

Time of day restrictions are used to manage a wide variety of parking demand challenges. For example:



Day of week/time of day signed restrictions can be used to mitigate spillover parking issues related to school sites. Hours can be adjusted to include or exclude drop off / pick up times depending on the desired outcome.

Signs like this that state a maximum amount a vehicle can remain parked can be used to encourage turnover of spaces which helps support commercial function.



Signs that restrict parking overnight can be used to mitigate vehicle habitation or other unwelcome activity where a problem has been identified in specific locations.



Peak travel hour restrictions are often used to mitigate congestion during peak travel times, allowing use of surplus road space for parking during off-peak periods.

Load Zones

Load zone restrictions can be used to manage curb space as it relates to demand for loading of passengers or goods. For example:



Where on-street capacity exists near schools and demand is high, school load zones can help to manage peak period drop off and pick up trips.

Load and unload zones can designate valuable curb space for business, office, or residential functions where there is a need to preserve short term curb space.



USE PAY STATION EXCEPT WITH PERMIT Phone (200) 584-5163 for information TOW-AWAY ZONE Passenger load zones can be helpful adjacent to high density residential land use or near other trip generators such as high capacity transit stations, event centers, or simply in front of a multifamily residential entry.

Commercial load zones are helpful to specifically support business function in areas in paid parking areas. Only a Commercial Vehicle (by definition) or permitted vehicle can use this type of load zone.

Restricted Parking Zones (RPZ)



Restricted Parking Zone (RPZ) Programs are used to help ease parking congestion in residential neighborhoods around significant parking demand generators, while balancing the needs of all people to be able to use the public streets. RPZ programs generally prioritize residential and short-term visitor parking over commuter parking in the public right-of-way, encouraging more sustainable travel patterns while balancing the impact to businesses. In a Restricted Parking Zone, signs are installed to restrict or limit parking except by permitted vehicles. Residents living within the zone can buy a limited number of permits that allow their vehicles to park on-street. Current City of Shoreline RPZ guidelines are shown in <u>Appendix F</u>.

The U.S. Supreme Court, in County Board of Arlington County Virginia, et. al. v. Rudolph A. Richards, et. al. 434 U.S. 5 (1977) addressed the constitutionality of a restricted parking program and reversed a decision of the Virginia Supreme Court (which ruled that RPZ's represented a violation of 14th Amendment—equal protection clause—by discriminating between residents and nonresidents). The U.S. Supreme Court stated:

"To reduce air pollution and other environmental effects of automobile commuting, a community reasonably may restrict on-street parking available to commuters, thus encouraging reliance on car pools and mass transit. The same goal is served by assuring convenient parking to residents who leave their cars at home during the day. A community may also decide that restrictions on the flow of outside traffic into particular residential areas would enhance the quality of life there by reducing noise, traffic hazards, and litter. By definition, discrimination against nonresidents would inhere in such restrictions."

This case law sets the clear intention of the RPZ; to deter environmentally unfriendly driving behaviors and enhance quality of life for neighborhoods in close proximity to trip generators. An RPZ is not intended to be used to discriminate between established versus new residents on the basis of residential redevelopment and increased resident density. Although excluding new residents or residents of a particular address to RPZ permits could potentially reduce car ownership, working toward sustainability goals, the application of an RPZ in this way would be without precedent and could potentially spur legal challenge on the basis of discrimination.

Metered Parking



Figure 1. City of Seattle parking meter

A parking meter is a device used to collect money in exchange for the right to park a vehicle in a specific place for a limited amount of time. There are many forms of metered parking; some collect cash directly at the meter which is subsequently collected by parking management staff (or third-party vendors) while others are limited to electronic payment only. In some jurisdictions, meters are specific to an individual parking space while others either print a receipt to be displayed on the vehicle or use the license plate number to track payment. Meters are generally used when parking utilization is 85% or greater throughout the day to allow better short-term access to businesses. It is important to understand the parking capacity and demand in an area being considered for metering to ensure meter revenue can offset installation, operation and maintenance costs of the program. Meter rates are generally set and managed using the principles of supply and demand, with the goal of ensuring drivers can reliably find at least a few short-term parking near their destinations. This helps reduce the frequency of circling and the associated congestion and environmental impacts. When meters are used, it is important to conduct routine parking utilization studies to determine if parking is priced appropriately.

Maximum Time Parked Ordinances

Many cities choose to adopt ordinances to limit the amount of time vehicles can remain parked in one place on-street rights-of-way. Specifying the maximum consecutive hours parked can help to:

- » Balance use of limited on-street parking supply, deterring long-term storage of personal vehicles
- » Mitigate abandoned and stolen vehicle occupancy of public rights-of-way
- » Reduce vehicle habitation
- » Better facilitate utility and capital work, where temporary parking restrictions are posted in advance of work and parked cars need to move

Most jurisdictions regionally that have adopted a maximum consecutive hours parked code use 24 to 72 hours as the threshold. Additionally, some specify move distance and stay out periods, or place additional constraints around recreational, large, or commercial vehicles.

Special Use Zones



With the continued growth of ride-hail and ride-share services such as taxis, Uber, Lyft, Car2Go, Lime, and many others, some cities are finding it beneficial to specifically allocate curb space for these uses in order to organize what could otherwise be unsafe, unwelcome or congestion-causing passenger loading and parking practices. Most commonly, special use zones are designated near significant passenger trip generators like event centers, business districts, mass transit stations, or large institutions like colleges or hospitals.

Dedicated Parking Management & Enforcement Staff



Figure 2. City of Kirkland enforcement officer and vehicle

Parking enforcement is an essential function of any urban and suburban municipality. Some cities choose to use general police department services while others create a specific job classification for this purpose. Either way, when increased parking management measures are implemented, such as Restricted Parking Zones (RPZs) and/or when parking violations and complaints display a need, adequate enforcement staff is necessary from a customer service perspective and to ensure compliance with parking laws. Many cities in the region staff part-time (as little as 12 hours/week) or full-time parking enforcement positions. Examples of nearby city job class and salary ranges are shown in Table 5 below.

City	Job Description	Salary R	ang	ge (hourly)
Burien	Parking Compliance Officer	\$21.10	-	\$25.64
SeaTac	Parking Compliance Officer	\$22.31	-	\$28.56
Everett	Parking Enforcement Officer	\$22.68	-	\$27.56
Renton	Parking Enforcement Officer	\$23.18	-	\$31.81
Kirkland	Parking Enforcement Officer	\$23.96	-	\$29.91
Edmonds	Parking Enforcement Officer	\$24.12	-	\$29.92
Seattle	Parking Enforcement Officer	\$26.87	-	\$30.71

Real Time Parking Information & Emerging Technologies



Figure 3. Real time parking information sign in Seattle

Technology continues to expand the ability for jurisdictions and private-public partnerships to dynamically manage parking supply in high-demand destinations. Most cities that have implemented information sharing tools do so to monitor large parking garages, where quantifying trips in and out at limited access points is relatively cost-effective and simple to implement. An example of this is Seattle's E-Park program which provides real time information via signs, mobile applications and online to convey parking availability at 14 parking garages. It is possible to install pavement sensors in city rights-of-way to determine occupancy and convey this information to the public, however installation and maintenance costs make this application relatively rare currently.

Existing Parking Management Practices in Shoreline

The primary groups involved in parking management on City of Shoreline rights-of-way are Traffic Services, the Code Enforcement-Customer Response Team, and the Shoreline Police Department. Roles, responsibilities, and challenges for each group are discussed in more detail in the following sections.

In addition, Public Works Engineering and Transportation Divisions work together to set plans for future street cross sections, including provisions for on-street parking, through corridor studies, design plans and the street matrix (Appendix F of the Engineering Development Manual which describes the expected improvements to be implemented by development). During these planning efforts, staff is guided by Transportation Master Plan Policy T36, which sets on-street parking as a secondary priority relative to the primary street purpose of moving people and goods via multiple modes. Policy T36 language is shown below.

"Policy T36: Design City transportation facilities with the primary purpose of moving people and goods via multiple modes, including automobiles, freight trucks, transit, bicycles and walking, with vehicle parking identified as a secondary use."

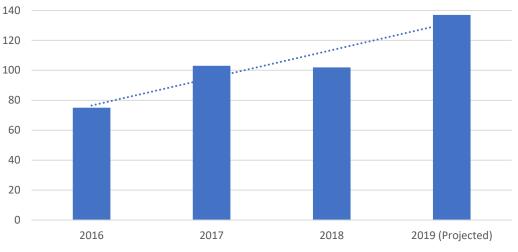
Also of note, the Planning and Community Development Department establishes the development standards for parking requirements on private property, which is strongly associated with overall demand and use of on-street parking. The associated on-site parking standards were discussed in the Laws and Codes section and are provided in <u>Appendix E</u>.

Traffic Services

Traffic Services is responsible for parking management as it relates to traffic control devices such as signs or paint. Per WAC 308-330-265, the Traffic Engineer oversees installation and removal of signed parking restrictions or parking meters. Traffic Services fields all requests and complaints related to installation, removal or revision of the following:

- » Time of day parking restrictions
- » Restricted Parking Zones (RPZ)
- » Disabled Parking
- » Load Zones
- » Bus stops and layovers
- » All other signed restrictions

Traffic services manages all associated assets for these types of restrictions. 2016 was the first complete year of tracking work on traffic assets within Shoreline. The following chart shows net new parking restriction signs installed by year. These installations represent a 7-10% increase in parking restriction signs per year.



New Parking Restriction Signs by Year



This data provides context for the uptick in parking related complaints and concerns throughout the City. Parking complaints and requests fielded by Traffic Services staff generally fall under the following categories. Examples for each are provided for context.

Decreased on-street capacity due to adjacent residential redevelopment/increased land use **Example: 12th Ave NE north of NE 175th Street (Polaris Apartments)**



Figure 5. 12th Ave NE near Polaris Apartments

In the case of 12th Ave NE, a 165-unit residential redevelopment was constructed adjacent to what is primarily single family residential (although zoned for MUR-35'). At the time of development application, municipal code was silent on the topic of multi-family developments unbundling parking (charging for

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parking and rent for the unit separately). As there is generally a benefit to development and property managers to allow unbundling, Polaris chose to do so. Given the large supply of free on-street parking immediately surrounding the apartment complex, most residents opted out of paying for parking. Most of 12th Ave NE between NE 175th and NE 185th Street lacks clear delineation of driveways and property lines given the lack of sidewalks. As a result, many drivers were violating parking laws, sometimes unknowingly. For example, parking closer than 5 feet to driveways, or parking in front of mailboxes. In 2014, Shoreline staff worked with the neighborhood on measures to address parking violations and concerns. During these efforts, Restricted Parking Zone (RPZ) permits were discussed in depth, with many of the street's single-family household residents expressing desire to implement permit parking for their (and their guest's) vehicles, excluding residents of the apartment complex. Shoreline staff explained that RPZ's are not meant to be used in a discriminatory manner, prioritizing one kind of resident over another. Case law on the topic supports the use of RPZ's primarily to discourage travel habits that negatively affect the environment and community, such "hide and ride" trips, which enable long distance single-occupant trips. As a result of the 12th Ave NE education and outreach effort with the community, some parking restrictions were put in place to clarify parking rules for drivers and enforcement. In addition, staff worked with the apartment property manager to educate residents and to lower parking prices to incentivize use of the garage. Another key change included an amendment to the development code to include the following language:

"SMC 20.50.410 Parking design standards. C. Parking for residential units must be included in the rental or sale price of the unit. Parking spaces cannot be rented, leased, sold, or otherwise be separate from the rental or sales price of a residential unit."

While this code provision may help to mitigate circumstances like 12th Ave NE, where multifamily redevelopment occurs adjacent to single family residential neighborhoods, it also represents a tradeoff in terms of economic development opportunity and detracts from the goal of reducing car ownership.

Decreased on-street capacity due to adjacent non-residential trip generators

Example: Neighborhood surrounding Shoreline Community College



Figure 6. RPZ Permit

When a non-residential trip generator such as a business, institution, or transportation facility causes spillover demand on surrounding local streets, a Restricted Parking Zone (RPZ) is an appropriate parking management strategy. Shoreline's first Restricted Parking Zone was established in 2004 in response to on-street parking demand on residential streets surrounding the Shoreline Community College and Highland Terrace Elementary School. A map of the existing RPZ zone is shown in <u>Appendix G</u>. Shoreline Community College's Master Development Permit contains conditions to fund the RPZ if expansion is warranted and requested by a nearby neighborhood. Shoreline's current RPZ program guidelines are shown in <u>Appendix F</u>. This program is available to any qualifying neighborhood Citywide, including those within the subarea. It is important to distinguish that this permit program is not intended to be used to discriminate between established versus new Shoreline residents on the basis

of residential redevelopment and increased resident density.

Request for parking restrictions near corners to preserve intersection sight distance Example: 5th Ave NE and NE 170th Street



Figure 7. Example sight line diagram at 5th Ave NE/NE 170th St

Sight line complaints are one of the most frequent concerns fielded by staff. Most often sight line concerns relate to vegetation blocking views, but as parking demand around redevelopment and other trip generators increases, increased occurrence of sight line related issues is likely. City staff conducts sight line reviews based on engineering guidelines established within the City of Shoreline **Engineering Development Manual** for most sight line complaints received. The example shown in the photo depicts one of these reviews, resulting in the restriction of parking near the intersection. These restrictions are typically implemented by installing signs that

state "NO PARKING" combined with "[NORTH/EAST] OF HERE" and "[SOUTH/WEST] OF HERE" to clearly identify the no parking zone.

Request for disabled parking designation

Shoreline receives relatively few requests for on-street reserved disabled permit parking. Shoreline's policy and practice for the implementation of these signed zones is documented in APWA Practice 34.10, provided as <u>Appendix H</u>. In general, on-street accessible zones are approved if:

- 1) The adjacent on-street location provides better accessibility to the residence or business than existing off-street location(s) associated with the parcel, if any; and
 - 2) it is compliant with parking regulations established by SMC 10.05 (Model Traffic Ordinance); and
 - 3) if upon review, parking at the requested location does not constitute a safety, sight distance, or traffic flow obstruction.



Request for parking restrictions related to bus stop and layover establishment

Example: Richmond Beach Dr NW south of NW 196th Street

Bus layover and bus stop installations or relocations are relatively infrequent requests from residents or transit agencies in recent years given the relative lack of change in transit service. With major transit service restructures planned with the start of light rail service, significant King County Metro, and potentially Community Transit, stop and layover establishment, relocation, and consolidation is



Figure 8. Metro bus layover on Richmond Beach Drive

anticipated. The example provided is of a layover at the end of the Richmond Beach Road corridor for Routes 304 and 348 which has been the subject of significant complaint from nearby residents. Bus layover is a critical component of establishing transit service, and while the majority of transit layover will be accommodated within Light Rail Station Transit Centers, there may still be some need for bus within layover elsewhere subareas for some buses based on routing. Bus stop relocation

and/or consolidation is also a likely outcome of restructures, which may restrict parking for general purpose users in some cases. King County Metro Facility Guidelines provide the dimensions for necessary parking restrictions associated with various bus stop types, as shown in <u>Appendix I</u>.

Parking restrictions to establish a clear pedestrian path on a roadway shoulder Example: 15th Ave NW north of NW 195th Street



Figure 9. Signed walkway on 15th Ave NE

In recent years, staff has been responding to more frequent resident concerns raised about the lack of dedicated pedestrian pathways along roads without sidewalks. This example is from 15th Ave NW, an arterial road connecting the Richmond Beach corridor to NW 205th Street. Although no public transit is present on this street, there are many Shoreline School District bus stops, and there is significant use by pedestrians in general. This segment of 15th Ave NW has been in place for many years, and just recently, neighbors along the segment south of the Richmond Beach Corridor requested similar treatment which was installed in early 2019.

Requests for time restricted parking, particularly around schools and near businesses

Example: Fremont Ave N south of NE 175th Street adjacent to Shorewood High School



School areas commonly require some degree of parking management and create significant demand for short-term and long-term parking. The short-term nature of much of the parking demand can make management challenging; many drivers will risk parking illegally since enforcement presence is unlikely to overlap with their short stay. Still, signage is often installed surrounding school areas to encourage orderly and safe drop off and pick up on-site to the degree possible. This also helps to avoid potentially risky crossing behaviors on public streets. Another challenge is long-term parking around high

school sites. Since many students drive to and from high schools, more long-term parking is needed. At times, even with new construction at both schools, parking can overflow onto adjacent streets. Shoreline staff worked with adjacent neighborhoods to determine where to implement time of day restrictions; as they apply to both high school students and residents.

Requests for supplemental signs to reinforce existing parking laws

Example: Intersection of NW 195th/NW 196th Street

This category likely comprises the majority of complaints and includes requests for supplemental signage and/or curb paint to further discourage parking that is already unlawful in accordance with state and local laws. For example, drivers parking too close in proximity to or blocking:

- » Driveways
- » Mailboxes
- » Intersections / Crossings

- » Bike lanes
- » Sidewalks
- » Bus lanes

Requests for supplemental signs are generally not granted as they are already an enforceable violation, represent an unnecessary material, labor and ongoing maintenance cost to tax payers, and generally benefit only a handful of people. In some cases however, supplemental signs are useful as an educational tool, where they can benefit a broad variety of users, or where they can be helpful to enforcement efforts. Similar to City of Seattle practices, Shoreline allows adjacent residents and businesses to paint their abutting driveway curb or curb in front of mailboxes yellow as shown in Appendix J. The example provided is at the skewed intersection of NW 195th/NW 196th Street in Richmond Beach; although technically within an intersection and therefore enforceable, the atypical intersection geometry



Figure 10. Supplemental no parking sign within intersection

paired with lack of sidewalks and the adjacent business parking demand led to frequent illegal parking so the decision was made to install supplemental *NO PARKING ANYTIME* signs.

Code Enforcement & Customer Response Team (CECRT)

The Code Enforcement & Customer Response Team's role in parking related issues on public rights-ofway can generally be categorized as investigation of abandoned/junk vehicle complaints. CECRT also

commonly serves as the first point of contact for requests related to parking enforcement or for installation of parking restrictions which are logged and reassigned to Shoreline Police or Traffic Services for follow up.

Although not codified, Shoreline generally follows the 72-hour rule for maximum time parked in one place on City rights-of-way common to many jurisdictions in the region. A general overview of the process used by CECRT to address abandoned vehicle complaints is provided as <u>Appendix K</u>.

CECRT then works with Shoreline Police to follow up with impound actions as needed, in accordance with

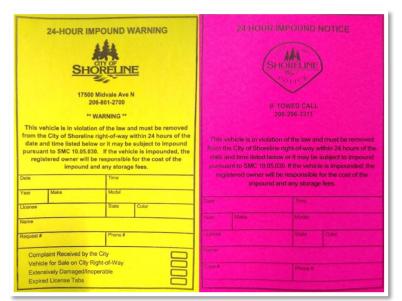


Figure 11. CECRT and Shoreline PD impound warning notices

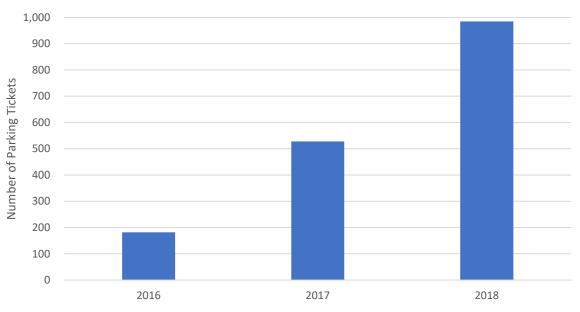
RCW 46.55.085 and SMC 10.05.030. Example notices posted on vehicles are shown in Figure 11. An attempt is typically made to contact the vehicle owner, especially if the vehicle can be tracked to a nearby resident.

Separate from CECRT-received complaints, Shoreline Police receives and responds to abandoned/junk vehicle complaints, using their discretion to tag vehicles based on complaints or field observations while on patrols. Shoreline Police can impound immediately based on the provisions of RCW 46.55.113.

Shoreline Police Department

The Shoreline Police Department is responsible for parking enforcement of violations established by state law, municipal code, or in accordance with signed restrictions implemented by Traffic Services. Police work closely with the Code Enforcement-Customer Response Team and Traffic Services to address parking enforcement issues as they arise, however there is no dedicated parking enforcement resource so more urgent matters often take priority over parking enforcement.

The following chart shows parking tickets issued by year since 2016; with the trend rising sharply since 2018 with 985 parking tickets issued.



Parking Tickets Issued by Year



The next chart shows the proportion of parking violation calls by enforcement district. The Shoreline Police Department enforcement district map is provided in <u>Appendix L</u> for reference. District A5 has the highest proportion of parking violation calls and contains the 185th Station Subarea.

2016-2018 Proportion of Parking Violation Incidents by District

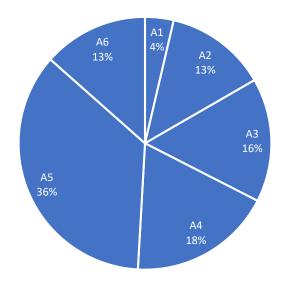


Figure 13. Percent of parking violation incidents by enforcement district

Currently, the monetary penalty for parking violations is generally less than the cost to process the parking violations, with a baseline monetary penalty of \$20, as shown in <u>Appendix M</u>, King County's Bail Schedule for Traffic Infractions/Violations. The King County Sheriff's Office serves several cities in the county through contracted agreements. Of these cities, the majority have adopted by City ordinance, monetary penalties that are greater than Washington State's baseline schedule of \$20, generally ranging from \$26 to \$71 dollars. Minimum parking violation monetary penalties for a few nearby cities are shown in Table 2 below.

City	Minimum Parking Violation Monetary Penalty
Burien	\$50
SeaTac	\$50
Everett	\$40
Renton	\$35
Kirkland	\$35
Edmonds	\$40
Seattle	\$47

Table 2. Example City-adopted minimum parking violation penalties

Current On-Street Parking Capacity and Utilization Conditions

Thorough on-street parking capacity and utilization data collection and analysis was performed for the 145th and 185th subareas, extending approximately ¼ mile surrounding the subareas. <u>Appendix A</u> provides a map showing the full extent of both study areas.

For the purposes of this inventory, on-street parking utilization is defined as the percentage of vehicles parked in standard on-street parking spaces during a set time period. The City of Shoreline does not formally designate or delineate individual spaces but compiled a space inventory that would exist if spaces were marked. These spaces are based on standard parking dimensions and reflect parking restrictions near intersections, driveways, and fire hydrants. Occupancy can be over 100% as vehicles sometimes park close together, illegally at 90-degree angle, or in illegal areas (i.e. too close to intersections or crossings).

The target occupancy, typically representing 1-2 open spaces per block, is 70% to 85%. This helps address circling or "cruising" for parking, which has associated congestion and environmental impacts. Conversely, occupancy significantly lower than the target range represents a City asset with underutilized capacity; an unbalanced cost in terms of maintenance and operations of the asset

Recognizing that parking occupancy varies over the course of the day, parking occupancy is evaluated by time-of-day groupings. These groupings normally include early morning hours between 4-6AM to obtain residential demand and middle hours 10AM-2PM to obtain daytime demand. Parking data collection was performed in January and March of 2019, avoiding any holidays or other factors that could skew data.

145th Subarea Parking Utilization Data (2019)

Summarized results of 2019 on-street parking data for the 145th Subarea are shown in Figure 14. The grey band represents the target occupancy range, and the red band represents the range at which on-street parking is at or over capacity, warranting demand management strategies. As would be expected, parking utilization is highest in the hours outside of typical business hours, representing a higher residential parking demand, but is still quite low at an average of 34% in the hours before 6 AM. It should be noted that residential streets generally account for more than 90% of the total parking capacity in the 145th study area.



Parking Utilization

Figure 14. 145th Subarea summary parking utilization data by street class and time period

Comprehensive street segment-specific results are provided in tabular form in <u>Appendix N</u> and are also mapped as shown in <u>Appendix O</u>. As shown in the summary chart (Figure 14), the 145th Subarea as a whole contains a significant surplus of available on-street parking. The following tables list local and arterial street segments with occupancy above 70% in either the morning period, afternoon period, or both. Street segments with capacity of 5 or less spaces were excluded from these tables. Streets in bold showed a utilization of over 85% for one or more count periods. Streets designated as over 100% utilization are over-capacity due to illegally parked vehicles; parked cars were either blocking driveways, parked too close or within intersections, or parked perpendicular in unmarked wide shoulders.

Table 3. Local streets in the 145th Subarea with parking utilization of 70% or greater for one or more count periods

Local Street Segment (145 th Subarea)	Capacity	4-6 AM % Utilized	10 AM-Noon % Utilized
11TH AVE NE FROM NE 155TH ST TO NE 158TH ST	37	73%	49%
4TH AVE NE FROM NE 165TH ST TO STREET END	7	114%	29%

8TH AVE NE FROM NE 150TH ST TO NE 151ST ST	7	100%	71%
CORLISS AVE N FROM N 148TH ST TO N 149TH ST	12	75%	50%
CORLISS PL N FROM N 153RD ST TO N 154TH ST	12	75%	50%
N 146TH ST FROM STREET END TO CORLISS AVE N	13	77%	31%
N 150TH ST FROM BURKE AVE N TO MERIDIAN AVE N	12	0%	108%
NE 146TH ST FROM 9TH AVE NE TO 9TH PL NE	7	86%	100%
NE 147TH ST FROM 17TH AVE NE TO 20TH AVE NE	20	95%	80%
NE 148TH ST FROM 12TH AVE NE TO 15TH AVE NE	24	71%	79%
NE 148TH ST FROM 15TH AVE NE TO 17TH AVE NE	34	85%	94%
NE 149TH ST FROM STREET END TO 5TH AVE NE	25	80%	68%
NE 152ND ST FROM 12TH AVE NE TO 15TH AVE NE	18	111%	78%
NE 162ND ST FROM 3RD AVE NE TO 5TH AVE NE	31	74%	39%

Table 4. Arterial streets in the 145th Subarea with parking utilization of 70% or greater for one or more count periods

Arterial Street Segment (145 th Subarea)	Capacity	West Side 3:30-6 AM % Utilized	East Side 3:30-6 AM % Utilized	West Side 10-11 AM % Utilized	East Side 10-11 AM % Utilized
MERIDIAN AVE FROM N 147TH ST TO N 148TH ST	11	100%	33%	0%	111%
5TH AVE NE FROM NE 162ND ST TO NE 163RD ST	8	75%	NP	38%	NP
5TH AVE NE FROM NE 165TH ST TO NE 167TH ST	15	29%	100%	0%	50%
1ST AVE NE FROM N 145TH ST TO NE 146TH CT	8	0%	0%	100%	0%
MERIDIAN AVE FROM N 150TH ST TO N 153RD ST	21	0%	13%	108%	88%

185th Subarea Parking Utilization Data (2019)

Summarized results of 2019 on-street parking data for the 185th Subarea are shown in Figure 15. The grey band represents the target occupancy range, and the red band represents the range at which on-street parking is at or over capacity, warranting demand management strategies. As would be expected, parking utilization is highest in the hours outside of typical business hours, representing a higher residential parking demand but is still quite low at an average of 35% prior to 6 AM. It should be noted that residential streets generally account for approximately 85% of the total parking capacity.



Parking Utilization

Complete street segment-specific results are provided in tabular form in <u>Appendix P</u> and are mapped as shown in <u>Appendix Q</u>. As shown in the summary chart (Figure 15), the 185th Subarea generally contains a significant surplus of available on-street parking. The following tables list local and arterial street segments with occupancy above 70% in either the morning period, afternoon period, or both. Street segments with capacity of 5 or less spaces were excluded from these tables. Streets in bold showed a utilization of over 85% for one or more count periods. Streets designated as over 100% utilization are over-capacity due to illegally parked vehicles; parked cars were either blocking driveways, parked too close or within intersections, or parked perpendicular in unmarked wide shoulders.

Local Street Segment (185 th Subarea)	Capacity	4-6 AM % Utilized	10 AM - Noon % Utilized
11TH AVE NE FROM NE 182ND ST TO NE 185TH ST	33	79%	58%
12TH AVE NE FROM NE 170TH ST TO NE 175TH ST	44	109%	73%
12TH AVE NE FROM NE 175TH ST TO NE 177TH ST	24	150%	100%
12TH AVE NE FROM NE 177TH ST TO NE 180TH ST	22	91%	55%
13TH AVE NE FROM 12TH PL NE TO STREET END	28	89%	57%
14TH AVE NE FROM NE 170TH ST TO STREET END	27	78%	59%
MIDVALE AVE N FROM N 188TH ST TO STREET END	14	64%	107%
N 183RD ST FROM MIDVALE AVE N TO STONE AVE N	21	71%	57%
NE 182ND ST FROM 10TH AVE NE TO 11TH AVE NE	12	83%	58%
NE 190TH ST FROM 8TH AVE NE TO 10TH AVE NE	45	27%	80%
NE SERPENTINE PL FROM 11TH AVE NE TO STREET END	6	167%	17%

Table 5. Local streets in the 185th Subarea with parking utilization of 70% or greater for one or more count periods

Figure 15. 185th Subarea summary parking utilization data by street class and time period

STONE AVE N FROM N 191ST ST TO N 192ND ST	11	118%	73%

Arterial Street Segment (185 th Subarea)	Capacity	W/N Side 3:30-6 AM % Utilized	E/S Side 3:30-6 AM % Utilized	W/N Side 10-11 AM % Utilized	E/S Side 10-11 AM % Utilized
NE 180TH ST FROM 11TH AVE NE TO 12TH AVE NE	11	140%	83%	120%	33%
NE 175TH ST FROM 12TH AVE NE TO 15TH AVE NE	6	117%	NP	117%	NP
15TH AVE NE FROM NE 177TH ST TO NE 179TH ST	6	100%	175%	50%	100%
NE 180TH ST FROM 10TH AVE NE TO 11TH AVE NE	9	100%	17%	0%	17%
NE 180TH ST FROM 14TH AVE NE TO 15TH AVE NE	12	100%	100%	100%	55%
5TH AVE NE FROM NE 179TH PL TO NE 180TH ST	6	0%	0%	100%	0%
10TH AVE NE FROM 175TH ST TO NE SERPENTINE	7	0%	0%	0%	100%

Table 6. Arterial streets in the 185th Subarea with parking utilization of 70% or greater for one or more count periods

Projected On-Street Parking Capacity and Utilization Conditions

With the existing capacity and utilization conditions documented, as well as the underlying future growth thresholds established by the 145th and 185th Subarea Final Environmental Impact Statements, it is possible to estimate, at a very high level, potential impacts to on-street parking within and surrounding the subarea. As discussed previously, resident use of on-street parking represents the current highest use of parking. This is gauged by collecting data prior to the standard work day; in the case of this study, prior to 6 AM. Both subarea FEIS estimates assume population and employment growth relatively similar to one another, as shown in Table 7 below, therefore continuing to use pre workday utilization as the constraint is appropriate.

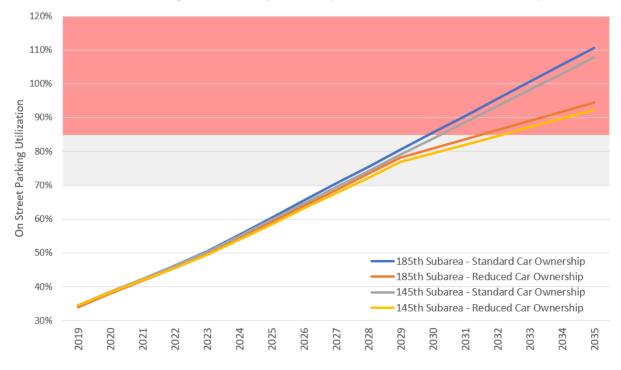
Table 7. Population	and Employment	growth estimates
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	185 th Subarea			145 th Subarea		
	2014	2035*	% Growth	2014	2035*	% Growth
Population	7944	13343	68%	8321	13635	64%
Housing	3310	5500	66%	3467	5681	64%
Employment	1448	2370	64%	1595	2678	68%

*Represents upper threshold values as provided in 145th and 185 Subarea FEIS documents.

According to the most recent US Census Data, in King County an average of 2 vehicles per household are available. Using this information, in conjunction with existing household data, year 2035 household thresholds, code requirements for on-site parking for new construction (including reductions allowed when light rail stations are operating), and existing on-street parking capacity/utilization data, it is possible to broadly estimate parking demand year by year (assuming linear growth). Figure 16 shows 2 scenarios for each subarea; one in which car ownership remains at 2 vehicles per household, and another where it drops to 1.4 vehicles per new household by 2029. The differential in parking demand by 2035 under the two scenarios is approximately 16% for both subareas. The data tables for this figure and additional context for assumptions is provided as <u>Appendix R</u>.

Attachment A



On-Street Parking Demand Projections by Year and Rate of Car Ownership

Figure 16. On-street parking demand projections

This projection provides useful information about when the subareas as a whole may begin to approach target and at-capacity on-street parking demand so the City can take the appropriate steps for proactive parking management, and guide provision of on-street parking associated with developer right-of-way improvements. This model can also be adjusted over time to more accurately reflect fluctuations in housing growth year by year which will allow for more accurate projections. It should be noted that the assumption for on-street parking capacity remains fixed in this projection. On-street parking capacity will change over time; in some cases, parking may be added with developer frontage improvements, or with consolidation of driveways, and in others it may be removed to accommodate bicycle facilities for example.

It should also be noted that increased parking demand generated by Sound Transit Light Rail stations is not accounted for. This is because hide-and-ride mitigation is planned to detour trips to the station once the parking garage is full.

Conclusions

The current subarea parking supply generally shows a significant surplus of parking on the vast majority of streets within and surrounding the subareas. Out of 365 total street segments, only 38 were shown to be over 70% capacity (excluding streets with less than 5 vehicle capacity). In nearly every case where a street's use is over 70%, a nearby street with lower parking rates is available within 1000 feet or less. This represents the hardest-felt change residents are currently feeling in isolated locations – where there is less availability of on-street parking in very close proximity to residents' single-family homes due to redevelopment or other nearby trip generators. As these neighborhoods grow and densify, residents who have parked in front of their homes on-street for years will likely find themselves competing with an increased number of residents in the same area. While this is a difficult change for many, on-street parking is a public commodity equally available to all residents and for many years to come, and for many years to come a surplus of on-street parking will still be available to residents within a relatively short walking distance. As the streets in the subareas fill, it will be increasingly important to provide adequate signage and enforcement to ensure safe and organized parking on-street, especially in the near-term, less built-out environment where driveways and intersections are not always clearly identifiable.

Based on estimates discussed in the *Projected On-Street Parking Capacity and Utilization Conditions* section, even in the more conservative trajectory assuming high car ownership and parking stalls constructed at a lower rate than they have been historically, more aggressive parking management tools such as parking meters are not anticipated to be needed or fiscally viable until 2029 or beyond. That said, with additional parking and household data gathered over the next 2 years, projections can be further calibrated and refined to focus on smaller geographic areas where more imminent action may be needed. In addition, significant expansion to the City's RPZ program is likely needed in the near future given the planned start of light rail revenue service in 2024 which will create a significant and immediate demand for parking around both stations.

As described in the *Findings, Conclusions, and Decision City of Shoreline Hearing Examiner Sound Transit Special Use Permit (No. SPL-18-0140),* Sound Transit's Federal Transit Authority Record of Decision requires that Sound Transit work with the City to develop plans to maintain safe and effective access and circulation, including discouraging cut-through traffic and "hide-and-ride" parking that may occur on residential streets in the station areas, requiring that:

"At least six months prior to the first day of revenue service, Sound Transit and the City would determine the scope and study parameters for the evaluation of parking availability and use in the vicinity of both stations and determine mutually agreed upon threshold(s) at which mitigation actions are necessary".

Shoreline's Subarea Parking Study will inform and provide a baseline for the Sound Transit "hide-and-ride" study process and will help the City to prepare for expected mitigation actions. Per the Record of Decision, Sound Transit is responsible for funding the initial implementation of any parking management strategies for 1 year, such as installing signs for RPZ's, but is not committed to provide resources for enforcement; representing an expanding gap for this element of parking management.

As discussed in the *Existing Parking Management Practices in Shoreline* section, the occurrence of parking violations, and the installation of parking restriction signs responsive to concerns, is on the rise. Although Traffic Services, Shoreline Police, and the Code Enforcement-Customer Response Team all have a part in managing parking Citywide, there is no clear relationship between budget allocation and staff time

necessary to provide consistent customer service around parking management. With 985 parking tickets issued in 2018, and more that would be issued with increased staff, there is potential for a traffic enforcement resource to be self-sustaining through parking ticket revenue. As discussed previously, the monetary penalty for parking violations is generally less than the cost to process the ticket so code changes would be necessary to facilitate this. Establishing a City-adopted monetary penalty represents an opportunity to, at a minimum, reduce or reallocate General Fund operating costs associated with King County District Courts or perhaps more optimally, to fully or partially fund a parking enforcement position to meet the level of service expectations of Shoreline residents.

Supplementing standard on-street parking management tools discussed above, Public Works, Planning and Community Development, and Economic Development should continue to refine and improve on-site parking requirements over time to align code with subarea visions. While Shoreline code is currently right-sized in accordance with today's demand, some provisions are detrimental to goals of lower car ownership - for example the requirement that parking must be bundled with the price of rent - and represent an opportunity for improvement.

In the more distant future, and dependent on market demand, working with developers to establish private-public partnerships represents a great opportunity to integrate ever-expanding and rapidly-changing technologies to provide dynamic information to the traveling public.

Recommendations

This section provides recommended strategies to manage parking in Shoreline light rail station subareas. Once started, it is assumed most of these operational programs and resources would be continued or expanded based on need over time, with funding adjustments occurring with the biennium budget process.

Near-Term (0-5 years)

Over the next several years, steps should be taken to:

1. Continue to utilize basic time of day and load zone parking restrictions as needed

As redevelopment occurs, continue to assess need for load zone restrictions, or other time of day/day of week restrictions as needed. Assessment and implementation typically occur with review of Right-of-Way permits associated with frontage improvements.

2. Analyze and adopt a monetary penalty schedule for parking violations specific to City of Shoreline More thorough budget analysis would be performed as part of this process, which could help to inform enforcement staffing decisions. Any changes would come before Council for discussion and adoption. If adopted, the penalty schedule should be reviewed and adjusted as needed periodically.

3. Fund a position dedicated to parking management and enforcement

Based on existing and anticipated need to enforce anticipated RPZ's around Sound Transit Light Rail Stations, staff recommends funding a part time position in the 2021-2022 biennium, dependent on the financial analysis and outcomes of revising the parking violation monetary penalty. The position should be periodically reviewed with biennium budget process to determine if/when additional staff resource is needed.

4. Update RPZ policies, procedures and fees to prepare for anticipated new RPZ's surrounding light rail stations

The City currently manages a small RPZ near Shoreline Community College, however the program framework is cumbersome for both staff and residents. Updating the policies, procedures and fees will allow for a more predictable and scalable RPZ program in order to be responsive to the new demands of the light rail stations and surrounding redevelopment. Public Works Staff will also work with Planning and Community Development staff to migrate RPZ permit intake from Public Works to Planning and Community Development as this represents the only permit that Public Works currently takes in directly. In accordance with these RPZ updates, implement new zones as part of Sound Transit Hide-and-Ride mitigation commitment, following Sound Transit's study efforts.

5. Use existing study data to inform the Engineering Development Manual Street Matrix update process

This will be an ongoing effort, using parking data to inform where on-street parking is needed and should be included as part of frontage improvements. Parking utilization data will continue to be collected through 2021 which will provide additional context for this process.

6. **Consider updating Transportation Master Plan policies around parking specific to land use context** The City may wish to expand upon or reframe policy T36 in order to allow for a more nuanced approach to parking prioritization as it relates to adjacent land use.

7. Explore potential development code revisions to encourage reduced car ownership

Existing code should be examined for unintended consequences that effectively increase traffic volumes and car ownership. This could include but is not limited to, options to incentivize lower car ownership, removing the current code provision restricting unbundling parking for the interior portion of the subareas to reduce car ownership, and/or expanding on criteria for reduced or revised on-site parking requirements. Fee-in-lieu or other programs could provide a mechanism for shifting private investments from the traditional individual owned car structure to more sustainable modes like walking, biking, transit, car-share or other alternatives.

Mid-Term (5-10 years)

Dependent on growth and light rail station impacts, the following represent potential actions for the mid-term timeframe of 5-10 years.

1. Potential implementation of special use zones

Around light rail stations or other major trip generators, identify key locations for designating curb space for car-share and ride-hail services to maintain safe, consistent, user-friendly transportation options.

2. Establish basic real time parking information technology

If not already implemented or planned within the 5-10 year timeframe, work with Sound Transit to establish real time information for their parking garages in Shoreline to reduce unnecessary trips on City Streets and provide useful information to drivers/riders.

9a-36

3. Depending on growth, perform a feasibility analysis of metered parking in key locations

If growth is generally on-track with or exceeding projections, collect new parking utilization and demand data in 2028 to determine if metered parking is viable. If utilization shows metered parking may be viable based on demand, prepare more detailed implementation strategy and financial analysis for follow up Council action.

Long-Term (10+ years)

Dependent on growth and status of mid-term recommendations, the following represent potential actions to take in the mid-term timeframe of greater than 10 years.

1. Implement metered parking in key locations

If warranted, begin implementation of metered parking program in high-demand locations within subarea.

2. Expand real time parking information

Depending on the private infrastructure and market demand, potentially form public-private partnerships to expand real time parking information program.

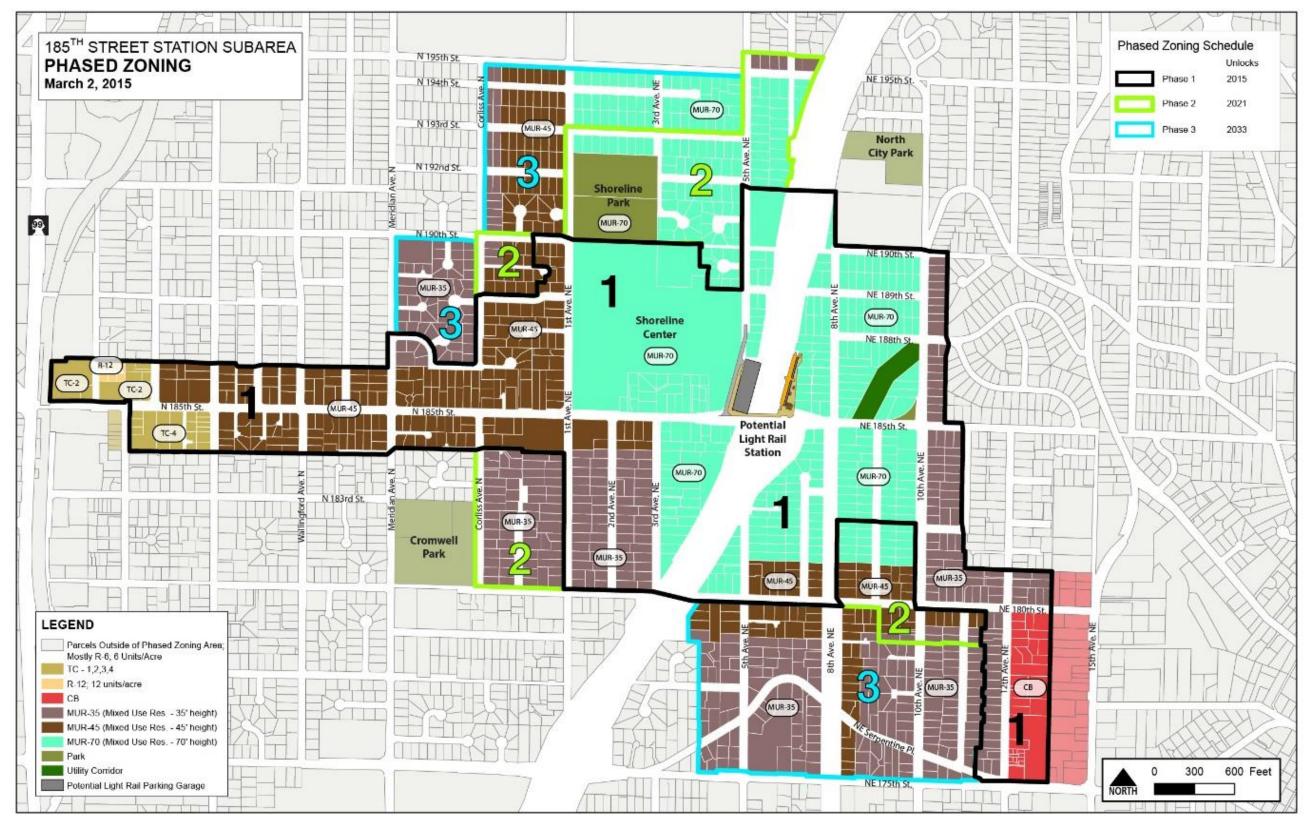
Attachment A

Appendices A-R

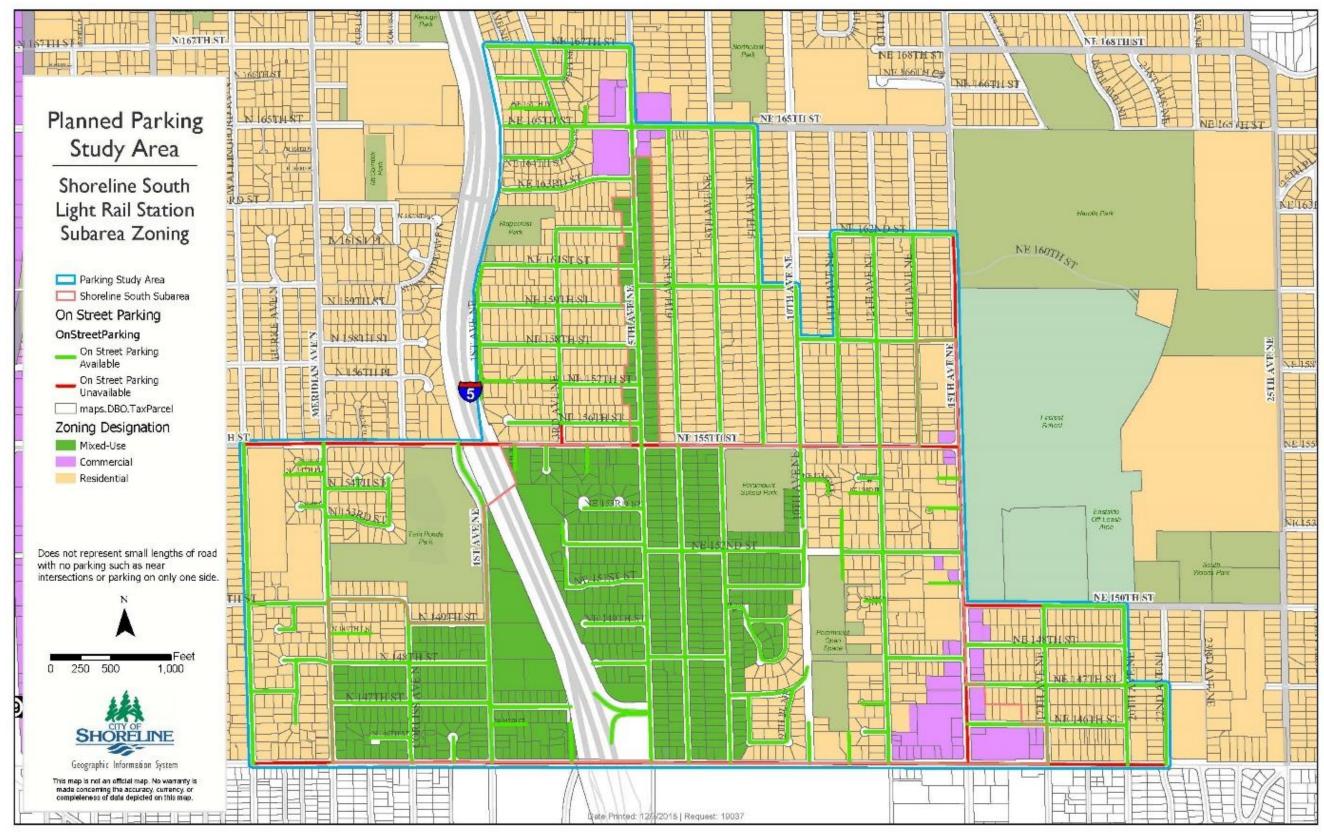
Appendix A – 145th & 185th Station Area Zoning Maps



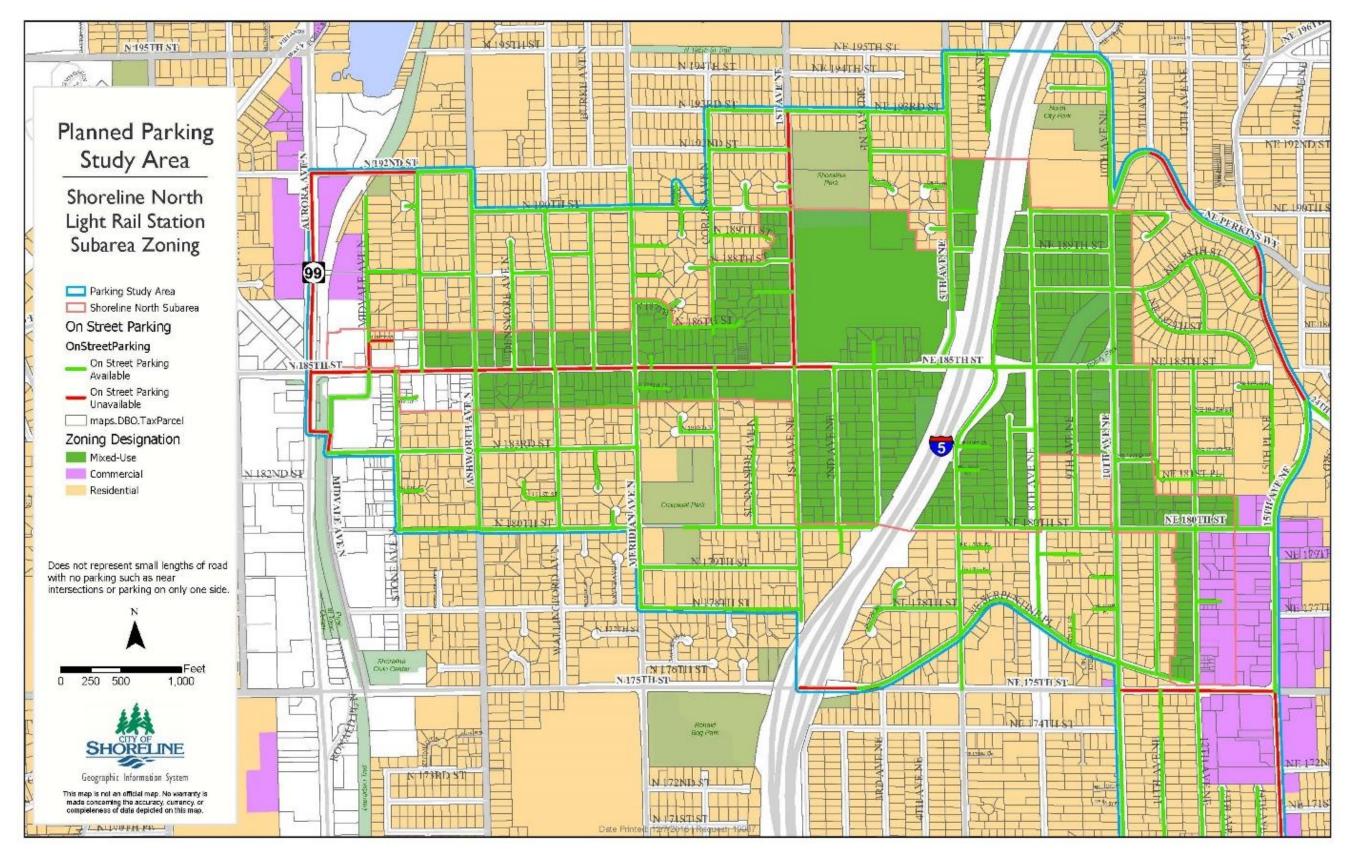
Appendix A – 145th & 185th Station Area Zoning Maps



Appendix B – 145th & 185th Parking Study Area



Appendix B – 145th & 185th Parking Study Area



Appendix C – SMC 10.05.030B

(1) Except when necessary to avoid conflict with other traffic, or in compliance with law or the directions of a police officer or official traffic control device, no person shall:

(a) Stop, stand, or park a vehicle:

(i) On the roadway side of any vehicle stopped or parked at the edge or curb of a street;

(ii) On a sidewalk or street planting strip;

(iii) Within an intersection;

(iv) On a crosswalk;

(v) Between a safety zone and the adjacent curb or within thirty feet of points on the curb immediately opposite the ends of a safety zone, unless official signs or markings indicate a different no-parking area opposite the ends of a safety zone;

(vi) Alongside or opposite any street excavation or obstruction when stopping, standing, or parking would obstruct traffic;

(vii) Upon any bridge or other elevated structure upon a highway or within a highway tunnel;

(viii) On any railroad tracks;

(ix) In the area between roadways of a divided highway including crossovers; or

(x) At any place where official signs prohibit stopping.

(xi) On public right-of-way unless said vehicle displays current and valid registration tabs properly mounted in accordance with RCW 46.16.010(1);

(xii) Within the same block to avoid a time limit regulation specified in that particular area, except as provided in RCW 46.61.582 and 46.61.583;

(xiii) Park a commercial vehicle which is more than 80 inches wide overall on any arterial, street or alley in residentially zoned areas as defined in SMC 20.40,

Subchapter 1 or on streets or arterials abutting residentially zoned areas between the hours of midnight and six a.m.;

(xiv) Directly adjacent to a curbside, next to clearly visible residential mail boxes between 10:00 a.m. and 3:00 p.m. on any day of scheduled mail delivery by the United States Postal Service;

(xv) In public locations under circumstances which constitute an unauthorized vehicle; (xvi) Within a bicycle lane, which is that portion of the paved section of the roadway designated by official signs or markings by the city for the movement of bicycles on the roadway;

(xvii) Within a transit priority lane designated by official signs or markings by the city as a bus only lane except to execute a right turn or to yield to emergency vehicles; (xviii) Within a dedicated turn lane, which is that portion of the paved section of the roadway designated by official signs or markings by the city for the purpose of making a right or left turn at an intersection or to a side road; and

(b) Stand or park a vehicle, whether occupied or not, except momentarily to pick up or discharge a passenger or passengers:

(i) In front of a public or private driveway or within five feet of the end of the curb radius leading thereto;

(ii) Within fifteen feet of a fire hydrant;

(iii) Within twenty feet of a crosswalk;

(iv) Within thirty feet upon the approach to any flashing signal, stop sign, yield sign, or traffic control signal located at the side of a roadway;

(v) Within twenty feet of the driveway entrance to any fire station and on the side of a street opposite the entrance to any fire station within seventy-five feet of said entrance when properly signposted; or

(vi) At any place where official signs prohibit standing.

(c) Park a vehicle, whether occupied or not, except temporarily for the purpose of and while actually engaged in loading or unloading property or passengers:

(i) Within fifty feet of the nearest rail of a railroad crossing; or

(ii) At any place where official signs prohibit parking.

(2) Parking or standing shall be permitted in the manner provided by law at all other places except a time limit may be imposed or parking restricted at other places but such limitation and restriction shall be by city ordinance or county resolution or order of the secretary of transportation upon highways under their respective jurisdictions.

(3) No person shall move a vehicle not lawfully under his or her control into any such prohibited area or away from a curb such a distance as is unlawful.

(4) It shall be unlawful for any person to reserve or attempt to reserve any portion of a highway for the purpose of stopping, standing, or parking to the exclusion of any other like person, nor shall any person be granted such right.

(5) It shall be unlawful to use a vehicle for human habitation on or in any public right-of-way or parking area. "Human habitation" means the use of a vehicle for sleeping, setting up housekeeping or cooking.

A. WAC <u>308-330-406</u> is amended to read as follows:

WAC <u>308-330-406</u> RCW sections adopted – Abandoned, unauthorized, and junk vehicle tow truck operators. The following sections of the Revised Code of Washington (RCW) pertaining to abandoned, unauthorized, and junk vehicle tow truck operators as now or hereafter amended are hereby adopted by reference as a part of this chapter in all respects as though such sections were set forth herein in full:

RCW <u>46.55.020</u>, <u>46.55.025</u>, <u>46.55.035</u>, <u>46.55.037</u>, <u>46.55.040</u>, <u>46.55.050</u>, <u>46.55.060</u>, <u>46.55.063</u>, <u>4</u> <u>6.55.070</u>, <u>46.55.075</u>, <u>46.55.080</u>, <u>46.55.085</u>, <u>46.55.090</u>, <u>46.55.100</u>, <u>46.55.105</u>, <u>46.55.110</u>, <u>46.55.130</u> <u>0</u>, <u>46.55.140</u>, <u>46.55.150</u>, <u>46.55.160</u>, <u>46.55.170</u>, <u>46.55.230</u>, and <u>46.55.240</u>.

1. RCW 46.55.010 is adopted with the following amendments to subsections (4) and (13):

(1) "Abandoned vehicle" means a vehicle that a registered tow truck operator has impounded and held in the operator's possession for one hundred twenty consecutive hours.

(2) "Immobilize" means the use of a locking wheel boot that, when attached to the wheel of a vehicle, prevents the vehicle from moving without damage to the tire to which the locking wheel boot is attached.

(3) "Abandoned vehicle report" means the document prescribed by the state that the towing operator forwards to the department after a vehicle has become abandoned.

(4) "Impound" means to take and hold a vehicle in legal custody. There are two types of impounds—public and private.

(a) "Public impound" means that the vehicle has been impounded at the direction of a law enforcement officer or by a public official having jurisdiction over the public property upon which the vehicle was located.

(b) "Private impound" means that the vehicle has been impounded at the direction of a person having control or possession of the private property upon which the vehicle was located.

(5) "Junk vehicle" means a vehicle certified under RCW <u>46.55.230</u> as meeting at least three of the following requirements:

a) Is three years old or older;

b) Is extensively damaged, such damage including but not limited to any of the following: A broken window or windshield, or missing wheels, tires, motor, or transmission;

c) Is apparently inoperable including a condition which makes the vehicle incapable of being operated legally on a public highway;

d) Has an approximate fair market value equal only to the approximate value of the scrap in it;

(6) "Master log" means the document or an electronic facsimile prescribed by the department and the Washington state patrol in which an operator records transactions involving impounded vehicles.

(7) "Registered tow truck operator" or "operator" means any person who engages in the impounding, transporting, or storage of unauthorized vehicles or the disposal of abandoned vehicles.

(8) "Residential property" means property that has no more than four living units located on it.

(9) "Suspended license impound" means an impound ordered under RCW 46.55.113 because the operator was arrested for a violation of RCW 46.20.342 or 46.20.345.

(10) "Tow truck" means a motor vehicle that is equipped for and used in the business of towing vehicles with equipment as approved by the state patrol.

(11) "Tow truck number" means the number issued by the department to tow trucks used by a registered tow truck operator in the state of Washington.

(12) "Tow truck permit" means the permit issued annually by the department that has the classification of service the tow truck may provide stamped upon it.

(13) "Tow truck service" means the transporting upon the public streets and highways of this state of vehicles, together with personal effects and cargo, by a tow truck of a registered operator.

(14) "Unauthorized vehicle" means a vehicle that is subject to impoundment after being left unattended in one of the following public or private locations for the indicated period of time:

Subject to removal after:

(a) Public locations:

1-1						
	(i)	Constituting an accident or a traffic hazard as defined in RCW 46.55.113	Immediately			
	(ii)	On a highway and tagged as described in RCW46.55.085	24 hours			
	(iii)	In a publicly owned or controlled parking facility, properly posted under RCW 46.55.070	Immediately			
	(iv)	Vehicles used for human habitation under RCW 46.61.570(5) as adopted in subsection (B)(1) of this section	24 hours			
	(v)	Failing to display registration tabs properly mounted in accordance with RCW 46.16.240, 46.16.047, 46.16.160, and WAC 308-96A-295 and in compliance with RCW 46.55.113 as adopted in subsection (A)(2) of this section	24 hours			
(b)	b) Private locations					
	(i)	On residential property	Immediately			
	(ii)	On private, nonresidential property, properly posted under RCW 46.55.070	Immediately			
	(iii)	On private, nonresidential property, not posted	24 hours			

2. RCW 46.55.113 is adopted with the following amendment to subsection (2):

Whenever the driver of a vehicle is arrested for a violation of RCW 46.20.342 or 46.20.345, the vehicle is subject to summary impoundment, pursuant to the terms and conditions of an applicable local ordinance or state agency rule at the direction of a law enforcement officer.
 In addition, a police officer may take custody of a vehicle, at his or her discretion, and provide for its prompt removal to a place of safety under any of the following circumstances:
 Whenever a police officer finds a vehicle standing upon the roadway in violation of any of the provisions of RCW 46.61.560, the officer may provide for the removal of the vehicle or require the driver or other person in charge of the vehicle to move the vehicle to a position off the roadway;

(b) Whenever a police officer finds a vehicle unattended upon a highway where the vehicle constitutes an obstruction to traffic or jeopardizes public safety;

(c) Whenever a police officer finds an unattended vehicle at the scene of an accident or when the driver of a vehicle involved in an accident is physically or mentally incapable of deciding upon steps to be taken to protect his or her property;

(d) Whenever the driver of a vehicle is arrested and taken into custody by a police officer; (e) Whenever a police officer discovers a vehicle that the officer determines to be a stolen vehicle;

(f) Whenever a vehicle without a special license plate, card, or decal indicating that the vehicle is being used to transport a disabled person under RCW 46.16.381 is parked in a stall or space clearly and conspicuously marked under RCW 46.61.581 which space is provided on private property without charge or on public property;

(g) Upon determining that a person is operating a motor vehicle without a valid driver's license in violation of RCW 46.20.005 or with a license that has been expired for ninety days or more;

(h) When a vehicle is illegally occupying a truck, commercial loading zone, restricted parking zone, bus, loading, hooded-meter, taxi, street construction or maintenance, or other similar zone where, by order of the director of transportation or chiefs of police or fire or their designees, parking is limited to designated classes of vehicles or is prohibited during certain hours, on designated days or at all times, if the zone has been established with signage for at least twenty-four hours and where the vehicle is interfering with the proper and intended use of the zone. Signage must give notice to the public that a vehicle will be removed if illegally parked in the zone;

(i) When a vehicle with an expired registration of more than forty-five days is parked on a public street;

(j) When the vehicle is a junk vehicle and is parked, wholly or partially, on a public right-ofway.

(3) When an arrest is made for a violation of RCW 46.20.342, if the vehicle is a commercial vehicle or farm transport vehicle and the driver of the vehicle is not the owner of the vehicle, before the summary impoundment directed under subsection (1) of this section, the police officer shall attempt in a reasonable and timely manner to contact the owner of the vehicle and may release the vehicle to the owner if the owner is reasonably available, as long as the owner was not in the vehicle at the time of the stop and arrest and the owner has not received a prior release under this subsection or *RCW 46.55.120(1)(a)(ii).

(4) Nothing in this section may derogate from the powers of police officers under the common law. For the purposes of this section, a place of safety may include the business location of a registered tow truck operator.

(5) For purposes of this section "farm transport vehicle" means a motor vehicle owned by a farmer and that is being actively used in the transportation of the farmer's or another farmer's farm, orchard, aquatic farm, or dairy products, including livestock and plant or animal wastes, from point of production to market or disposal, or supplies or commodities to be used on the farm, orchard, aquatic farm, or dairy, and that has a gross vehicle weight rating of 7,258 kilograms (16,001 pounds) or more.

3. RCW 46.55.120 is adopted with the following addition of subsection (1)(f):

(1) Vehicles or other items of personal property registered or titled with the department are impounded by registered tow truck operators pursuant to RCW 46.55.080, 46.55.085, 46.55.113, or 9A.88.140 may be redeemed only under the following circumstances:

...

(f) To redeem vehicles impounded under RCW 46.20.342, RCW 46.61.502 and RCW 46.61.504, the redeeming individual must obtain an authorization to release from the Shoreline Police Department, verifying proof of ownership or authorization under subsection (a), liability insurance for the vehicle, a valid driver's license and payment of an administrative fee as

established in Chapter 3.01 SMC. The administrative fee shall be for the purposes of offsetting City costs of implementing, enforcing and administering the impound.

20.50.380 Purpose.

The purpose of this subchapter is to establish standards for parking, access, pedestrian and vehicular circulation, and bicycle facilities as follows:

A. To ensure that the parking and circulation aspects of all developments are well designed with regards to safety, efficiency and convenience of vehicles, bicycles, pedestrians, and transit.

B. To provide convenient and safe access to all buildings and adequate parking for all developments.

C. To reduce demand for parking by encouraging alternative means of transportation, including public transit, rideshare, and bicycles.

D. To promote efficiency through reductions in the number of parking stalls, shared driveway access and shared parking facilities.

E. To assure safe, convenient, efficient and adequately sized parking facilities.

F. To increase pedestrian mobility and provide safe, pleasant and direct pedestrian access. (Ord. 238 Ch. V § 6(A), 2000).

20.50.385 Thresholds - Required site improvements.

Repealed by Ord. 654. (Ord. 581 § 1 (Exh. 1), 2010; Ord. 515 § 1, 2008; Ord. 299 § 1, 2002).

20.50.390 Minimum off-street parking requirements - Standards.

A. Off-street parking areas shall contain at a minimum the number of parking spaces stipulated in Tables 20.50.390A through 20.50.390D.

RESIDENTIAL USE	MINIMUM SPACES REQUIRED	
Single detached/townhouse:	2.0 per dwelling unit. 1.0 per dwelling unit in the MUR zones for single-family attached/townhouse dwellings.	
Apartment:	Ten percent of required spaces in multifamily and residential portions of mixed use development must be equipped with electric vehicle infrastructure for units where an individual garage is not provided. ¹	
Studio units:	0.75 per dwelling unit	
One-bedroom units:	0.75 per dwelling unit	
Two-bedroom plus units:	1.5 per dwelling unit	
Accessory dwelling units:	1.0 per dwelling unit	
Mobile home park:	2.0 per dwelling unit	

Table 20.50.390A - General Residential Parking Standards

¹ Electric vehicle infrastructure requires that the site design must provide conduit for wiring and data, and associated ventilation to support the additional potential future electric vehicle charging stations pursuant to the most current edition of the National Electrical Code Article 625.

If the formula for determining the number of electric vehicle parking spaces results in a fraction, the number of required electric vehicle parking spaces shall be rounded to the nearest whole number, with fractions of 0.50 or greater rounding up and fractions below 0.50 rounding down.

Table 20.50.390B - Special Residential Parking Standards

RESIDENTIAL USE	MINIMUM SPACES REQUIRED	
Bed and breakfast guesthouse:	1 per guest room, plus 2 per facility	
Residential care facilities:	1 per 3 patients, plus 1 per FTE employee on duty	
Dormitory, including religious:	1 per 2 units	
Hotel/motel, including organizational hotel/lodging:	1 per unit	
Senior citizen assisted:	1 per 3 dwelling or sleeping units	

Note: Square footage in this subchapter refers to net usable area and excludes walls, corridors, lobbies, bathrooms, etc.

NONRESIDENTIAL USE	MINIMUM SPACES REQUIRED	
General services uses:	1 per 300 square feet	
Professional office uses:	1 per 500 square feet	
Manufacturing uses:	0.9 per 1,000 square feet	
Recreation/culture uses:	1 per 300 square feet	
Regional uses:	(Director)	
Retail trade uses:	1 per 400 square feet	

Note: Square footage in this subchapter refers to net usable area and excludes walls, corridors, lobbies, bathrooms, etc.

10010 201	
NONRESIDENTIAL USE	MINIMUM SPACES REQUIRED
Bowling center:	2 per lane
Houses of worship	1 per 5 fixed seats, plus 1 per 50 square feet of gross floor area without fixed seats used for assembly purposes
Conference center:	1 per 3 fixed seats, plus 1 per 50 square feet used for assembly purposes without fixed seats, or 1 per bedroom, whichever results in the greater number of spaces

Table 20.50.390D - Special Nonresidential Standards

NONRESIDENTIAL USE	MINIMUM SPACES REQUIRED
Construction and trade:	1 per 300 square feet of office, plus 1 per 3,000 square feet of storage area
Courts:	3 per courtroom, plus 1 per 50 square feet of fixed-seat or assembly area
Daycare I:	2 per facility, above those required for the baseline of the underlying zone
Daycare II:	2 per facility, plus 1 for each 20 clients
Elementary schools:	1.2 per staff member
Fire facility:	(Director)
Food stores less than 15,000 square feet:	1 per 350 square feet
Funeral home/crematory:	1 per 50 square feet of chapel area
Fuel service stations with grocery, no service bays:	1 per facility, plus 1 per 300 square feet of store
Fuel service stations without grocery:	3 per facility, plus 1 per service bay
Golf course:	3 per hole, plus 1 per 300 square feet of clubhouse facilities
Golf driving range:	1 per tee
Heavy equipment repair:	1 per 300 square feet of office, plus 0.9 per 1,000 square feet of indoor repair area
High schools with stadium:	1 per staff member plus 1 per 10 students, and 1 per 3 fixed seats in stadium
High schools without stadium:	1 per staff member, plus 1 per 10 students
Home occupation:	In addition to required parking for the dwelling unit, 1 for any nonresident employed by the home occupation and 1 for patrons when services are rendered on site
Hospital:	1 per bed
Middle/junior high schools:	1.2 per staff member
Nursing and personal care facilities:	1 per 4 beds
Outdoor advertising services:	1 per 300 square feet of office, plus 0.9 per 1,000 square feet of storage area
Outpatient and veterinary clinic offices:	1 per 300 square feet of office, labs, and examination rooms
Park/playfield:	(Director)
Police facility:	(Director)
Public agency archives:	0.9 per 1,000 square feet of storage area, plus 1 per 50 square feet of waiting/reviewing area
Public agency yard:	1 per 300 square feet of offices, plus 0.9 per 1,000 square feet of indoor storage or repair area
Restaurants:	1 per 75 square feet in dining or lounge area

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NONRESIDENTIAL USE	MINIMUM SPACES REQUIRED
Self-storage facilities:	1 per 0.000130 square feet of storage area, plus 2 for any resident director's unit
Specialized instruction schools:	1 per classroom, plus 1 per 2 students
Theater:	1 per 3 fixed seats
Vocational schools:	1 per staff member, plus 1 per 2 students
Warehousing and storage:	1 per 300 square feet of office, plus 0.5 per 1,000 square feet of storage area
Wholesale trade uses:	0.9 per 1,000 square feet
Winery/brewery:	0.9 per 1,000 square feet, plus 1 per 50 square feet of tasting area

<u>Exception 20.50.390(A)(1)</u>: If the formula for determining the number of off-street parking spaces results in a fraction, the number of off-street parking spaces shall be rounded to the nearest whole number, with fractions of 0.50 or greater rounding up and fractions below 0.50 rounding down.

<u>Exception 20.50.390(A)(2)</u>: When the City of Shoreline has received a shell building permit application, off-street parking requirements shall be based on the possible tenant improvements or uses authorized by the zone designation and compatible with the limitations of the shell permit. When the range of possible uses results in different parking requirements, the Director will establish the amount of parking based on a likely range of uses.

Exception 20.50.390(A)(3): Where other provisions of this Code stipulate higher maximum parking or reduced minimum parking requirements, those provisions shall apply.

Exception 20.50.390(A)(4): Minimum parking requirements may be reduced through provisions in SMC 20.50.400.

B. Off-street parking ratios expressed as number of spaces per square feet shall be based on the usable or net square footage of floor area, exclusive of nonpublic areas. Nonpublic areas include, but are not limited to, building maintenance areas, storage areas, closets, or restrooms.

C. For all nonresidential uses, the maximum amount of allowed parking shall not exceed 50 percent over the minimum required number of stalls. Any proposal for parking that exceeds 10 percent over the minimum required number of stalls must be approved by the Director.

D. Any amount of surface parking lot that is over the minimum required number of stalls shall be paved with permeable pavement. (Ord. 850 § 1 (Exh. A), 2019; Ord. 824 § 1 (Exh. A), 2018; Ord. 767 § 1 (Exh. A), 2017; Ord. 731 § 1 (Exh. A), 2015; Ord. 706 § 1 (Exh. A), 2015; Ord. 669 § 1 (Exh. A), 2013; Ord. 663 § 1 (Exh. 1), 2013; Ord. 654 § 1 (Exh. 1), 2013; Ord. 581 § 1 (Exh. 1), 2010; Ord. 238 Ch. V § 6(B-1), 2000).

20.50.400 Reductions to minimum parking requirements.

A. Reductions of up to 25 percent may be approved by the Director using a combination of the following criteria:

1. On-street parking along the parcel's street frontage.

2. Shared parking agreement with nearby parcels within reasonable proximity where land uses do not have conflicting parking demands. The number of on-site parking stalls requested to be reduced must match the number provided in the agreement. A record on title with King County is required.

3. Parking management plan according to criteria established by the Director.

4. A City approved residential parking zone (RPZ) for the surrounding neighborhood within one-quarter mile radius of the subject development. The RPZ must be paid by the developer on an annual basis.

5. A high-capacity transit service stop within one-quarter mile of the development property line with complete City approved curbs, sidewalks, and street crossings.

6. A pedestrian public access easement that is eight feet wide, safely lit and connects through a parcel between minimally two different rights-of-way. This easement may include other pedestrian facilities such as walkways and plazas.

7. City approved traffic calming or traffic diverting facilities to protect the surrounding singlefamily neighborhoods within one-quarter mile of the development.

8. Retention of at least 20 percent of the significant trees on a site zoned MUR-70'.

9. Replacement of all significant trees removed on a site zoned MUR-70' as follows:

a. One existing significant tree of eight inches in diameter at breast height for conifers or 12 inches in diameter at breast height for all others equals one new tree.

b. Each additional three inches in diameter at breast height equals one additional new tree, up to three trees per significant tree removed.

c. Minimum Size Requirements for Replacement Trees under This Provision. Deciduous trees shall be at least one and one-half inches in caliper and evergreens six feet in height.

B. A project applying for parking reductions under the Deep Green Incentive Program may be eligible based on the intended certification. Parking reductions are not available in R-4 and R-6 zones. Reductions will be based on the following tiers:

1. Tier 1 – Living Building or Living Community Challenge Certification: up to 50 percent reduction in parking required under SMC 20.50.390 for projects meeting the full International Living Future Institute (ILFI) program criteria;

2. Tier 2 – Living Building Petal or Emerald Star Certification: up to 35 percent reduction in parking required under SMC 20.50.390 for projects meeting the respective ILFI or Built Green program criteria;

8/27/2019

Print Preview

 Tier 3 – LEED Platinum, 5-Star, PHIUS+ Source Zero/Salmon Safe, or Zero Energy/Salmon Safe Certification: up to 20 percent reduction in parking required under SMC 20.50.390 for projects meeting the respective US Green Building Council, Built Green, PHIUS, ILFI and/or Salmon Safe program criteria.

4. Tier 4 – PHIUS+ or 4-Star: up to five percent reduction in parking required under SMC 20.50.390 for projects meeting the PHIUS or Built Green program criteria.

C. In the event that the Director approves reductions in the parking requirement, the basis for the determination shall be articulated in writing.

D. The Director may impose performance standards and conditions of approval on a project, including a financial guarantee.

E. Reductions of up to 50 percent may be approved by the Director for the portion of housing providing low-income housing units that are 60 percent of AMI or less as defined by the U.S. Department of Housing and Urban Development.

F. A parking reduction of 25 percent may be approved by the Director for multifamily development within one-quarter mile of the light rail station. These parking reductions may not be combined with parking reductions identified in subsections A and E of this section.

G. Parking reductions for affordable housing or the Deep Green Incentive Program may not be combined with parking reductions identified in subsection A of this section. (Ord. 839 § 1 (Exh. A), 2019; Ord. 833 § 1 (Exh. A), 2018; Ord. 760 § 1 (Exh. A), 2017; Ord. 731 § 1 (Exh. A), 2015; Ord. 766 § 1 (Exh. A), 2013; Ord. 654 § 1 (Exh. 1), 2013; Ord. 238 Ch. V § 6(B-2), 2000).

Appendix F - Current City of Shoreline RPZ Guidelines



Residential Parking Zone (RPZ)

Program Guidelines

INTRODUCTION

The Residential Parking Zone (RPZ) Program has been developed to help ease parking congestion in residential neighborhoods.

A Residential Parking Zone is established in a neighborhood to discourage long-term parking by non-residents on residential streets. This parking zone may be appropriate where the parking congestion is caused by being near a business district, a hospital, school, or factory with limited on-site parking. An RPZ is not appropriate where residents themselves own more cars than there are parking spaces available.

An RPZ involves the posting of parking time limits or other parking prohibitions from which local residents are exempt if a valid permit is displayed in their vehicle. The following images illustrate typical RPZ signs although the actual parking restriction may vary depending on the local conditions:



Figure 1 – Samples of RPZ signing

TYPES OF PERMITS

Annual Permit

Residents within the boundary may purchase one permit for each vehicle they own. The cost of each permit is \$17.50 and is renewed annually. The permit is not transferable. The fees collected pay for the administrative cost of the permits and as such, the fee is not prorated.

Guest Permit

Each household within the boundary is eligible to receive one free guest permit if they purchase an annual permit. There will be no charge for this guest permit. A guest permit is transferable among vehicles. Usage of guest permits is limited to seven (7) days per month. Only two guest permits will be issued per household.

Page 1 of 3

Appendix F - Current City of Shoreline RPZ Guidelines

Temporary Permits

Each household is eligible to purchase temporary permits for \$17.50. Temporary permits are good for 30 days, and they are transferable. The permits can only be issued to residents who live within the RPZ boundary. There is no limit to the number of temporary permits that can be issued to a household.

Group Permit

Residents within a boundary are eligible to purchase a group permit for special events. The cost of the residential parking permit is \$17.50, and is good for the 24-hour period specified on the permit. There is no limit to the number of vehicles covered under a group permit.

Permits cannot be issued to non-residents or owners and employees, of non-residential land uses. The different types are summarized in Figure 2 below:

Permit Type	Cost	Time Limit	Transferable	Limitations
Annual	\$17.50	Up to one year	No	One permit per vehicle
Guest	Free	7 days per month	Yes	Maximum of two permits per household
Temp	\$17.50	30 days	Yes	No Limits
Group	\$17.50	24 hours	Yes	No Limits

Figure 2 - Comparison of Permit Features

HOW TO INITIATE AN RPZ FOR YOUR NEIGHBORHOOD

A petition signed by at least seven (7) residents needs to be submitted to Traffic Services, describing the problem and delineating the boundaries of the parking problem. The recommended minimum area for an RPZ is five blocks, or five block equivalents (about a quarter mile). Please visit the Traffic Services Parking Program webpage at: http://www.shorelinewa.gov/government/departments/public-works/traffic-services to download, fill out and distribute for additional resident support the RPZ petition form. Please contact Traffic Services staff if you are unable to access this information via the internet. Completed forms should be sent in electronic format to kdedinsky@shorelinewa.gov.

Or mailed to:

City of Shoreline Attn: Traffic Services 17500 Midvale Ave N Shoreline WA 98133-4905

If the City determines that a Residential Parking Zone may be appropriate for an area, City staff will contact impacted residents and schedule a parking study.

City Action

When we begin to take action on a request, we will first organize a neighborhood committee representing community interests. This committee's task will be to design an RPZ that will meet the parking needs of the community.

Page 2 of 3

Appendix F - Current City of Shoreline RPZ Guidelines

At the same time, we will study the area's parking situation. An RPZ will be established if the parking problem meets the following criteria:

- There is an identifiable parking generator.
- The parking problem exists on at least five contiguous blocks or 5 block equivalents.
- 75% of the parking spaces are being utilized during the peak hours of the traffic generator.
- 25% of the cars belong to non-residents.

Community Action

Votes of support must be gathered from at least 60% of the households (owners or renters) within the affected area. Only one signature per household is counted.

If the area fails to meet the parking study criteria or fails to gain 60% support for an RPZ, then the City will not designate a parking zone in that neighborhood. If the area meets these requirements, then the City will designate the parking zone and begin installing the appropriate signs and issuing permits.

Time Frame

The time frame for implementing a typical RPZ is about 6 to 9 months, however the time it takes to create an RPZ depends heavily on the local conditions. Such conditions include area size, severity of the parking problem, surrounding land use, and community commitment.

Expansion of the Zone

Expansion of existing zones may be approved on a contiguous block-by-block basis, with signatures from 60% of those residents and a determination that an RPZ is appropriate for that block.

RESIDENTIAL PARKING PERMIT REQUIREMENTS

To qualify for a Residential Parking Permit you must live within the boundaries of a Residential Parking Zone (RPZ). Before applying for a permit, please visit our website at: <u>http://www.shorelinewa.gov/government/departments/public-works/traffic-services</u> or call (206) 801-2431 to verify that your house is within a zone.

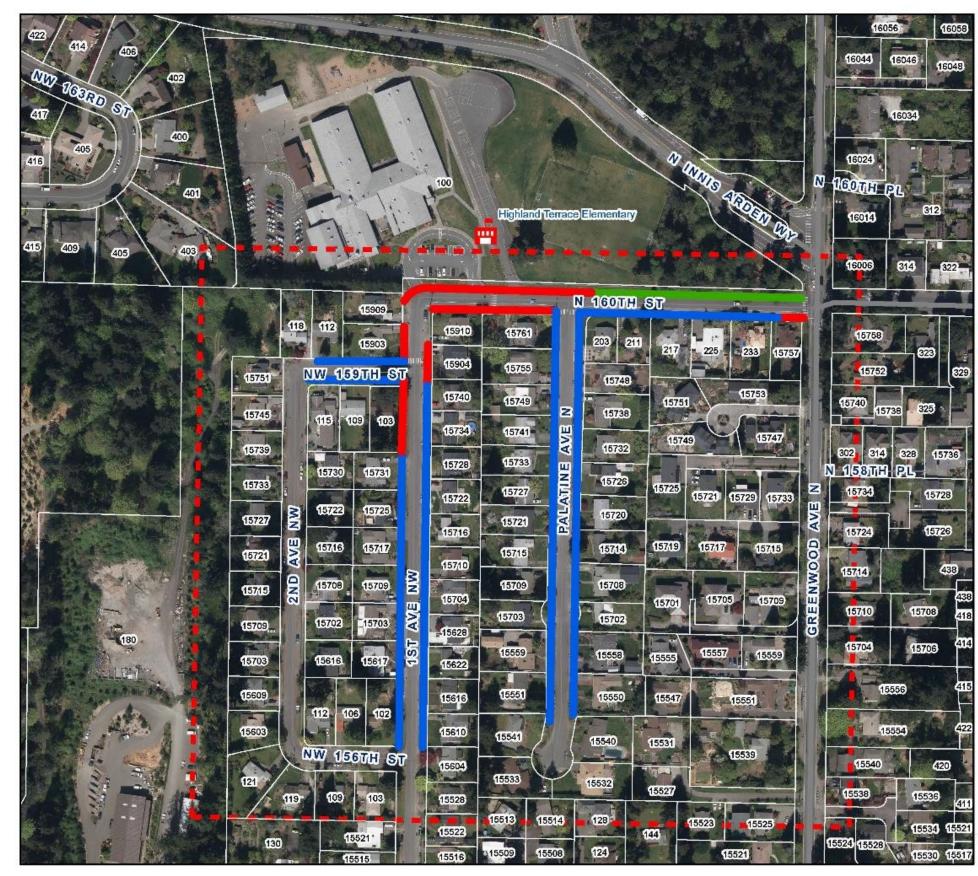
To obtain an annual RPZ permit, residents need to provide the City with:

- Current (dated within the last 30 days) proof of residency showing the resident's name and address. This can be a bill, bank statement, rent receipt, or other form of official mail.
- A copy of the resident's current Washington State Vehicle Registration. The vehicle must be registered to the resident applying for the parking zone permit. Titles, temporary registrations and bills of sale are not accepted. Out-of-state registration is accepted only for active duty military personnel or out-of-state students providing proof of non-resident status

The RPZ Permit Form is available online at:

http://www.shorelinewa.gov/government/departments/public-works/traffic-services

Page 3 of 3



Attachment A

City of Shoreline

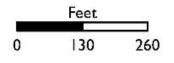
Residential Parking Zone (RPZ)

Zone I Map

Legend

2-Hour Parking
 No Parking, 8am-1pm
 No Parking, Any Time







Geographic Information System

Date Printed: 3/12/2019 Request: 19596

This map is not an official map. No warranty is made concerning the accuracy, currency, or completeness of data depicted on this map.

Appendix H - APWA Policy 34.10 Residential Handicapped Parking Zones

Chapter No. 34	Parking
Practice No. 10	Residential Handicapped Parking Zones

Practice statement: A policy and procedure for designating handicap parking zones adjacent to residential property is adopted.

Assigned to: Kendra Dedinsky

Agency Compliance:

\boxtimes	Fully Compliant
	Substantially Compliant
	Partially Compliant

Non-Compliant

Approval and installation of accessible parking zones within public right of way is overseen by the City Traffic Engineer. All requests for accessible parking zones within public right of way are submitted to Traffic Services for review and approval. Accessible zones are approved if:

- 1) The adjacent on-street location provides better accessibility to the residence or business than existing off-street location(s) associated with the parcel, if any; and
- 2) is in compliance with parking regulations established by Ordinance 399; and
- 3) upon review, parking at the requested location does not constitute a safety, sight distance, or traffic flow obstruction.

Where established, accessible zones will be signed in accordance with MUTCD standards.

When Traffic Services is notified that the space is no longer being utilized, contact will be made with the adjacent property and upon verification, the regulatory sign will be removed.

Documents and Directives:

City of Shoreline Ordinance 399 – Adoption of Model Traffic Ordinance and Amendments WAC 308-330-265 – Traffic Engineer Authority <u>MUTCD – Part 2B</u> Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way

Change Record:

09/16/16 – Presentation to ARC. Adopted.

Approved By:

Public Works Director		
Name: Randy Witt	Signature:	Date:
Accreditation Manager		
Name: Susana Villamarin	Signature:	Date:

CHAPTER 3: VEHICLE AND STREET DESIGN STANDARDS

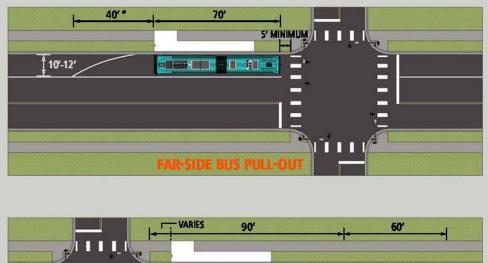
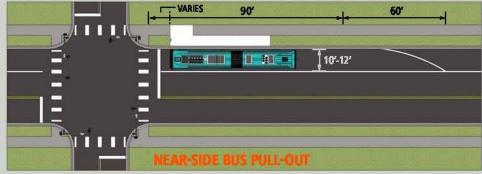
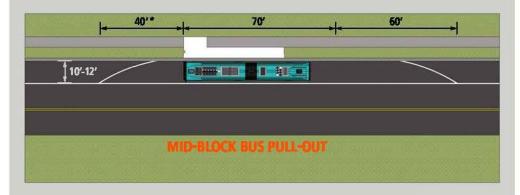


Figure 3.2-2. Bus Pull-out Designs for Streets with Speed Limits of Less than 40 mph





* If shoulder is unimproved, ingress taper should be 60' instead of 40'

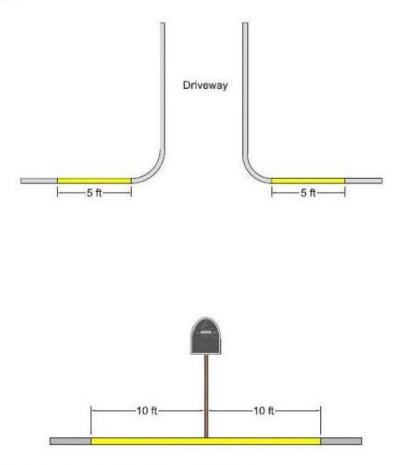
Not to Scale

KING COUNTY METRO TRANSIT FACILITIES GUIDELINES APRIL 2018



Appendix J - Curb Paint Diagram

According to <u>Shoreline Model Traffic Ordinance</u> and Washington State law, drivers are not allowed to park next to mail boxes between 10 AM and 3 PM on a scheduled mail delivery day. Additionally, it is illegal to park within 5 feet of a driveway. Residents can paint the curb adjacent to their driveways and/or curb in front of mailboxes "traffic yellow" as shown in this diagram:



Yellow Curb Paint to extend no longer than 10 ft on either side of mailbox. If mailboxes are grouped, 10 ft can be measured from outer mailbox.

If you need additional assistance or no curb exists, please contact Traffic Services staff.

Appendix K - Abandoned Vehicle Tagging

Abandoned Vehicle Tagging Program

Abandoned vehicle tagging is currently completed by the Code Enforcement & Customer Response Team (CECRT) at the request of Shoreline Police. The intent was to remove this task from the Shoreline Police's workplan to free up officers to address more pressing issues.

Responses are based on a single or any combination of four violations;

- 1. Vehicle not moved in 72 hours or greater
- 2. <u>Vehicle for Sale in the Right-of-Way</u>

KCC 14A.50.130.A2

Advertising and sales, washing, greasing, repairs.

A. No person shall park any vehicle upon any county road for the principle purpose of: 2. Displaying such vehicle for sale

3. Extensively Damaged/Inoperable

KCC 46.08.040.A(10) Whenever a wrecked, dismantled or inoperative vehicle is left on the public right of way, or on a publicly owned or controlled property

4. Expired License Tabs

10.05.030 Failing to display registration tabs properly mounted in accordance with RCW 46.16.240, 46.16.047, 46.16.160 and WAC 308-96A-295 and in compliance with RCW 46.55.113 as adopted in subsection (A)(2) of this section.

CECRT receives a request that there is an abandoned vehicle that needs to be investigated for tagging, these requests come in in a variety of ways, some of which are listed below;

- Walk in
- Phone
- CRTeam e-mail
- See Click Fix
- City Staff or Police/internal referral

CECRT checks the City Works service request system to help prevent request/data duplication.

If there are any concerns/red flags brought to our attention by the reporting party (habitation, stolen or suspicious) about the vehicle, Shoreline Police are notified, this report does not become a request unless Shoreline Police kicks it back as clear of these concerns.

Write up the request in City Works with the following required fields.

- Specific location
- Make
- Model
- Color
- License plate

Vehicle plates (Washington only) are run through IVIPS (DOL) to determine ownership/current plates/registered address. Out of state plates can only be run by SPD or King County Dispatch.

6/26/2019

Appendix K - Abandoned Vehicle Tagging

CECRT Staff goes to the location and finds that the vehicle is either;

- G.O.A. (gone on arrival)
- Found as described and Tagged, photo taken showing vehicle and tag location
- Does not meet requirements, falsely reported
- Is on private property

Notes are placed in the City Works file as to the findings of the site visit.

If the registered owner/responsible party contacts the City, staff speaks with them on the code and requests the owner to take corrective steps to gain compliance.

Staff goes back to the location (24 hours or more later) for a follow-up and finds that the vehicle is either;

- G.O.A. (gone on arrival)
- Not moved and is referred to Shoreline Police

Notes placed in the City Works file as to the findings of the second site visit.

The file is referred to Shoreline Police by;

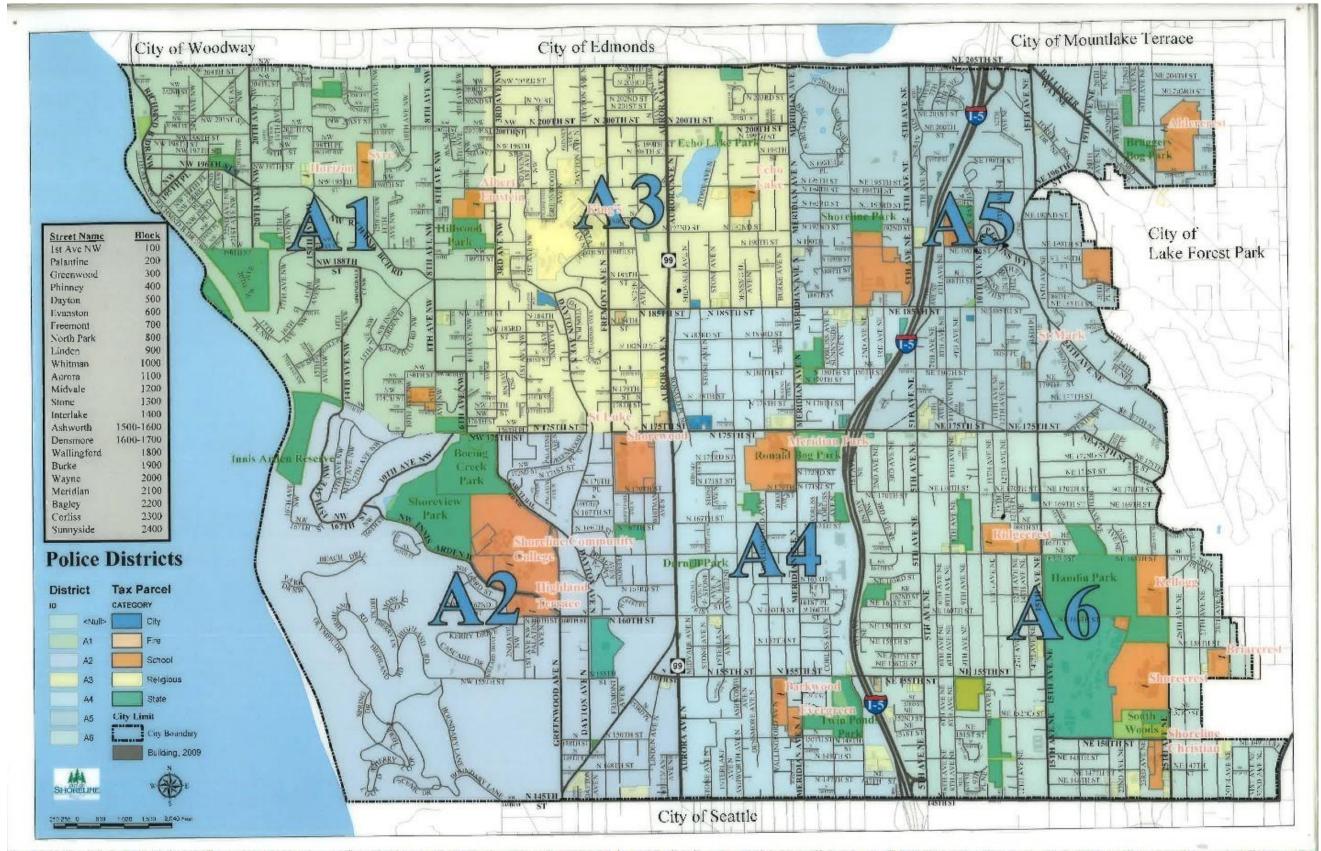
- A PDF of the file is sent to the Shoreline Police Traffic SGT as an attachment in email
- An end of month Excel spreadsheet is sent to the Shoreline Police Traffic SGT with all outstanding requests currently referred to Shoreline Police

When Shoreline Police provides feedback to each request the CECRT AA;

- Puts notes in the City Works file
- Resolves it in City Works as necessary
- Removes the line item file from the Excel spreadsheet

The Excel spreadsheet should be reviewed quarterly to keep it current.

This process, depending on staffing and urgency of other requests, is intended to take no longer than 5 business days from initial request to resolution or referral to the Shoreline Police for review for towing or other corrective action.



Appendix L - Police District Map

Appendix M - King County Bail Schedule for Traffic Infractions-Violations

			Monetary
IT	46 61 606	NIN/	Priving on a Sidowalk 136
IT IT	46.61.606 46.61.670	NM NM	Driving on a Sidewalk
U	40.01.070	INIVI	Driving with wheels On Roadway / On Shoulder
TRA	FIC SIGNS, SIGNALS,	AND M	ARKINGS
IT	KCC 14A.80.010	NM	Avoidance of Stop Signs and Stop Lights
IT	46.61.050	NM	Failure to Obey Traffic Control Device (Fail Stop at red light)136
IT	46.61.065	NM	Failure to Obey Flashing Red Signal136
IT	46.61.070	NM	Failure to Obey Lane Control Device136
IT	46.61.075	NM	Unlawful Display Traffic Control Signs or Signals
IT	46.61.080	NM	Interference With / Deface / Destroy Traffic Signs / Devices136
IT	46.61.183	NM	Failure to Stop / Yield R/O/W at Non-Functioning Signal Light136
IT	46.61.190	NM	Failure to Stop / Yield at Intersection (fail to stop at stop sign)136
CT	47.48.040	MA	Disregard Road Closed Sign / Emergency Speed Sign M
TURI	N. START AND SIGNA	L ON ST	OPPING AND TURNING
IT	46.61.290	NM	Improper Turn or Exceed 300' in Two-Way Left Turn Lane
IT	46.61.295	NM	Prohibited U-Turn
П	46.61.300	NM	Unsafe Starting From a Parked Position
IT	46.61.305	NM	Unsafe Turn/Lane Change / Fail to Signal for 100'136
IT	46.61.310	NM	Failure to Signal or Not Equipped With Lamps
П	46.61.315	NM	Improper Hand/Arm Signal136
			- T
SPEC	IAL STOPS REQUIRED		
IT	46.61.340	NM	Fail to Stop at Approach of Train / Disobey RR Crossing Gate136
IT	46.61.345	NM	Fail to Stop at RR Crossing With Stop Sign Within 50'
			(But No Less Than 15') of Crossing136
IT	46.61.350(1)	NM	Failure to Stop at RR Crossing136
IT	46.61.365	NM	Fail to Stop Prior to Crossing Sidewalk from Alley / Driveway136
IT	46.61.370	NM	Passing Stopped School Bus419
IT	46.61.385	NM	Failure to Obey School Patrol228
PARI	KING, STOPPING AND) STAND	lING
IN	KCC 14A.50.060	NM	Parked Blocking Mailbox 9 AM to 9 PM Mail Delivery Days20
IN	KCC 14A.50.070	NM	Parking Vehicle on Roadway (unincorporated)
			0
	GAL PARKING / STAN		
IT	46.19.050(2)	NM	Unauthorized Use of Disabled Placard/Plate/ID450
IT	46.19.050(3)	NM	Blocking Access Aisle Next to Disabled Zone450
IT	46.19.050(4)	NM	Parking in a Disabled Zone without a Disabled Placard/Plate450
IN	46.61.570	NM	Double Parking
IN	46.61.570	NM	Parked on Sidewalk / Planting Strip20
IN	46.61.570	NM	Parked Within an Intersection20
IN	46.61.570	NM	Parked on / in a Crosswalk20
IN	46.61.570	NM	Parked Between Safety Zones20
IN	46.61.570	NM	Parked Alongside / Opposite Excavation Obstruct Traffic
IN	46.61.570	NM	Parked Upon Bridge / Elevated Structure / in Tunnel
IN	46.61.570	NM	Parked Upon a RR Track20
IN	46.61.570	NM	Parked in Areas between Divided Highways20

KCSO C-158 06/24/2019 update

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Appendix M - King County Bail Schedule for Traffic Infractions-Violations

•	o <i>i</i>		
IN	46.61.570	NM	Parked in Areas Where Prohibited by Signing20
IN	46.61.570	NM	Parked in Front of / Within 5' of Curb Radius of Driveway
IN	46.61.570	NM	Parked Within 15' of Fire Hydrant20
IN	46.61.570	NM	Parked Within 20' of Crosswalk20
IN	46.61.570	NM	Parked Within 30' of Traffic Control Sign / Signal
IN	46.61.570	NM	Parked Within 20' of Driveway of Fire Station
IN	46.61.570	NM	Parked Within 75' Opposite Fire Station Entrance
IN	46.61.570	NM	Parked Within 50' on Nearest Rail of RR Crossing
IN	46.61.570(2)	NM	Overtime Parking
IN	46.61.575	NM	Parked With Right Wheels > 12" of Curb / Road Edge
			(Parked on Wrong Side of Road)20
IN	46.61.581	NM	Fail to Maintain Disabled Parking Sign / Space Inaccessible
IT	46.61.590	NM	Leaving Unattended Motor Vehicle on Highway136
Π	46.61.600	NM	Unattended Motor Vehicle Engine Running136
IN	KCC 14A.50.100.C	NM	Stop/Stand/Parking of Taxi Cab29
IN	KCC 14A.50.110	NM	Restricted Use of Bus Stops70
IN	KCC 14A.50.130.A2	NM	Unlawful Parking for Displaying of Vehicle for Sale
IN	KCC 14A.50.130.A3	NM	Unlawful Parking for Sale of Merchandise from Vehicle
IN	KCC 14A.50.130.B	NM	Unlawful Parking for Wash / Repair (Except Emergency)
IN	KCC 17.04.420.D	NM	Obstructing a Fire Lane50
IN	KCC 17.04.420.J	NM	Parked in a Fire Lane50
MOTO	ORCYCLES (M/C)		
IT	46.20.500	NM	No / Improper Motorcycle Endorsement136
IT	46.37.522	NM	Operate M/C w/o Headlights or Taillights On136
IT	46.37.523	NM	Fail to Meet Lighting Requirements on a M/C136
IT	46.37.525	NM	Defective Taillight, Brake Light, Reflectors136
IT	46.37.530(1)	NM	Operate M/C w/o Eye Protection / Mirrors / Helmet136
IT	46.37.530(1)(d)	NM	Operate M/C w/ Child under 5136
IT	46.37.535	NM	Rent M/C w/o Having Helmet for Rent / Use136
IT	46.37.537	NM	Defective Equipment / Exhaust System on M/C
IT	46.61.608	NM	Illegal Operation of M/C on Road Laned for Traffic
IT	46.61.610	NM	Riding Two on M/C Seat Designed for One
IT	46.61.611	NM	Operation of M/C With Handgrips >30" Above Seat
IT	46.61.612	NM	Operation of M/C with Both Feet on Same Side
IT	46.61.614	NM	Operation of M/C While Clinging to Other Vehicle136

MOTORIZED FOOT SCOOTERS

IT	KCC 14A.40.010.A	NM	Operating Without Brake137
IT	KCC 14A.40.010.B	NM	Operating Between Sunset and Sunrise137
IT	KCC 14A.40.010.D	NM	Operating or Riding Without Helmet137
IT	KCC 14A.40.010.E	NM	Rules of the Road Violations137
IT	KCC 14A.40.010.F	NM	Operating Scooter on Sidewalk
IT	KCC 14A.40.010.G1	NM	Operating on Roadway with >25 MPH Posted Speed Limit

KCSO C-158 06/24/2019 update

145TH STUDY AREA - ARTERIALS		CA	PACITY		3:3	0-6AN		NTS	3:3	80-6AN	M DEMA	ND	1	0-11A	M COUN	NTS	10	-11AN	I DEMA	ND
STREET SEGMENT NAME	N	S	W	E	Ν	S	W	E	Ν	S	W	E	Ν	S	W	E	Ν	S	W	E
1ST AVE NE FROM NE 146TH CT TO N 147TH ST			NP	3			NP	0			NP	0%			NP	0			NP	0%
5TH AVE NE FROM NE 145TH ST TO 145TH ST I-5 RP			NP	5			NP	1			NP	20%			NP	0			NP	0%
5TH AVE NE FROM NE 148TH ST TO NE 148TH ST			NP	NP			NP	NP			NP	NP			NP	NP			NP	NP
5TH AVE NE FROM NE 152ND ST TO NE 152ND ST			NP	NP			NP	NP			NP	NP			NP	NP			NP	NP
5TH AVE NE FROM NE 153RD ST TO NE 155TH ST			NP	4			NP	1			NP	25%			NP	0			NP	0%
5TH AVE NE FROM NE 155TH ST TO NE 156TH ST			NP	NP			NP	NP			NP	NP			NP	NP			NP	NP
5TH AVE NE FROM NE 156TH ST TO NE 157TH ST			NP	1			NP	1			NP	100%			NP	2			NP	200%
5TH AVE NE FROM NE 157TH ST TO NE 158TH ST			NP	7			NP	0			NP	0%			NP	0			NP	0%
5TH AVE NE FROM NE 158TH ST TO NE 159TH ST			NP	4			NP	2			NP	50%			NP	0			NP	0%
5TH AVE NE FROM NE 159TH ST TO NE 160TH ST			NP	2			NP	0			NP	0%			NP	0			NP	0%
5TH AVE NE FROM NE 160TH ST TO NE 161ST ST			NP	NP			NP	NP			NP	NP			NP	NP			NP	NP
5TH AVE NE FROM NE 163RD ST TO NE 165TH ST			NP	4			NP	0			NP	0%			NP	1			NP	25%
MERIDIAN AVE N FROM N 153RD ST TO N 153RD PL			NP	1			NP	0			NP	0%			NP	1			NP	100%
MERIDIAN AVE N FROM N 154TH CT TO N 155TH ST			NP	3			NP	0			NP	0%			NP	0			NP	0%
MERIDIAN AVE N FROM N 147TH ST TO N 148TH ST			2	9			2	3			100%	33%			0	10			0%	111%
MERIDIAN AVE N FROM N 149TH LN TO N 150TH ST			1	3			1	2			100%	67%			1	1			100%	33%
5TH AVE NE FROM NE 162ND ST TO NE 163RD ST			8	NP			6	NP			75%	NP			3	NP			38%	NP
5TH AVE NE FROM NE 161ST ST TO NE 162ND ST			7	NP			4	NP			57%	NP			1	NP			14%	NP
5TH AVE NE FROM NE 165TH ST TO NE 167TH ST			7	8			2	8			29%	100%			0	4			0%	50%
1ST AVE NE FROM N 148TH ST TO N 149TH ST			8	NP			2	NP			25%	NP			4	NP			50%	NP
5TH AVE NE FROM NE 148TH ST TO NE 149TH ST			6	4			1	1			17%	25%			0	2			0%	50%
1ST AVE NE FROM N 147TH ST TO N 148TH ST			7	NP			1	NP			14%	NP			0	NP			0%	NP
1ST AVE NE FROM N 145TH ST TO NE 146TH CT			2	6			0	0			0%	0%			2	0			100%	0%
1ST AVE NE FROM N 149TH ST TO N 155TH ST			52	NP			0	NP			0%	NP			18	NP			35%	NP
5TH AVE NE FROM 145TH ST I-5 RP TO NE 148TH ST			2	4			0	1			0%	25%			0	2			0%	50%
5TH AVE NE FROM NE 149TH ST TO NE 151ST ST			5	5			0	2			0%	40%			0	0			0%	0%
5TH AVE NE FROM NE 151ST ST TO NE 152ND ST			2	4			0	2			0%	50%			0	0			0%	0%
5TH AVE NE FROM NE 152ND ST TO NE 153RD ST			7	6			0	0			0%	0%			0	0			0%	0%
MERIDIAN AVE N FROM N 145TH ST TO N 147TH ST			7	11			0	1			0%	9%			0	2			0%	18%
MERIDIAN AVE N FROM N 148TH ST TO N 149TH LN			6	2			0	1			0%	50%			1	0			17%	0%
MERIDIAN AVE N FROM N 150TH ST TO N 153RD ST			13	8			0	1			0%	13%			14	7			108%	88%
MERIDIAN AVE N FROM N 153RD PL TO N 154TH ST			2	2			0	0			0%	0%			0	1			0%	50%
MERIDIAN AVE N FROM N 154TH ST TO N 154TH PL			2	4			0	0			0%	0%			0	0			0%	0%
NE 165TH ST FROM 5TH AVE NE TO 6TH AVE NE	7	NP			0				0%				5	NP			71%			

City of Shoreline Light Rail Station Subareas Parking Study | October 2019

TREET SEGMENT NAME - LOCAL STREETS		M-6AM COUNTS			0AM-NOON DEMAN
OTH AVE NE FROM NE 151ST ST TO NE 152ND ST	12	0	0%	0	0%
OTH AVE NE FROM NE 152ND ST TO STREET END	6	4	67%	3	50%
OTH AVE NE FROM STREET END TO NE 153RD CT	17	6	35% 0%	2	12%
OTH AVE NE FROM NE 153RD CT TO NE 155TH ST OTH AVE NE FROM NE 155TH ST TO NE 158TH ST	37	0 24	65%	1 19	20%
OTH AVE NE FROM NE 153TH ST TO NE 158TH ST OTH AVE NE FROM NE 158TH ST TO NE 160TH ST	29	15	52%	13	45%
1TH AVE NE FROM NE 155TH ST TO NE 156TH ST	37	27	73%	18	49%
1TH AVE NE FROM NE 155TH ST TO NE 158TH ST 1TH AVE NE FROM NE 158TH ST TO NE 162ND ST	42	17	40%	11	26%
2TH AVE NE FROM NE 145TH ST TO NE 146TH ST	42	4	100%	1	25%
2TH AVE NE FROM NE 146TH ST TO NE 147TH ST	15	7	47%	6	40%
2TH AVE NE FROM NE 147TH ST TO NE 148TH ST	15	2	13%	2	13%
2TH AVE NE FROM NE 148TH ST TO NE 150TH CT	23	5	22%	3	13%
2TH AVE NE FROM NE 150TH CT TO NE 152ND ST	13	1	8%	2	15%
2TH AVE NE FROM NE 152ND ST TO NE 153RD PL	28	1	4%	0	0%
2TH AVE NE FROM NE 153RD PL TO NE 154TH ST	6	0	0%	1	17%
2TH AVE NE FROM NE 154TH ST TO NE 155TH ST	8	1	13%	3	38%
2TH AVE NE FROM NE 155TH ST TO NE 158TH ST	41	2	5%	2	5%
2TH AVE NE FROM NE 158TH ST TO NE 162ND ST	27	3	11%	1	4%
4TH AVE NE FROM NE 155TH ST TO NE 158TH ST	40	13	33%	10	25%
4TH AVE NE FROM NE 158TH ST TO NE 162ND ST	39	18	46%	6	15%
7TH AVE NE FROM NE 145TH ST TO NE 146TH ST	8	0	0%	1	13%
7TH AVE NE FROM NE 146TH ST TO NE 147TH ST	2	0	0%	0	0%
7TH AVE NE FROM NE 147TH ST TO NE 148TH ST	7	2	29%	3	43%
7TH AVE NE FROM NE 148TH ST TO NE 150TH ST	7	4	57%	1	14%
ND AVE NE FROM STREET END TO NE 155TH ST	12	1	8%	2	17%
OTH AVE NE FROM NE 145TH ST TO NE 146TH ST	6	2	33%	1	17%
OTH AVE NE FROM NE 146TH ST TO NE 147TH ST	15	4	27%	0	0%
OTH AVE NE FROM NE 147TH ST TO NE 148TH ST	20	2	10%	1	5%
OTH AVE NE FROM NE 148TH ST TO NE 150TH ST	19	1	5%	2	11%
2ND AVE NE FROM NE 145TH ST TO NE 147TH ST	46	12	26%	5	11%
RD AVE NE FROM NE 151ST ST TO STREET END	11	0	0%	0	0%
RD AVE NE FROM NE 155TH ST TO NE 156TH ST	4	0	0%	0	0%
RD AVE NE FROM NE 156TH ST TO NE 157TH ST	12	2	17%	2	17%
RD AVE NE FROM NE 157TH ST TO NE 158TH ST	17	4	24%	3	18%
RD AVE NE FROM NE 158TH ST TO NE 159TH ST	19	5	26%	4	21%
RD AVE NE FROM NE 159TH ST TO NE 161ST ST	17	5	29%	4	24%
RD AVE NE FROM NE 161ST ST TO NE 162ND ST	13	2	15%	2	15%
RD AVE NE FROM NE 165TH ST TO NE 165TH PL	9	0	0%	0	0%
RD AVE NE FROM NE 165TH PL TO NE 166TH ST	13	2	15%	1	8%
RD PL NE FROM NE 166TH ST TO NE 167TH ST TH AVE NE FROM NE 164TH ST TO NE 165TH ST	10	5 2	50% 17%	2	20% 8%
TH AVE NE FROM NE 165TH ST TO STREET END	7	8	114%	2	29%
TH AVE NE FROM NE 165TH ST TO STREET END	36	21	58%	14	39%
TH AVE NE FROM NE 143TH ST TO NE 148TH ST TH AVE NE FROM NE 148TH ST TO NE 152ND ST	42	26	62%	12	29%
TH AVE NE FROM NE 148111 ST TO NE 152ND ST TH AVE NE FROM NE 152ND ST TO NE 155TH ST	38	20	63%	21	55%
TH AVE NE FROM NE 152ND ST TO NE 155TH ST	82	20	24%	14	17%
TH AVE NE FROM NE 160TH ST TO NE 160TH ST	76	20	36%	22	29%
TH AVE NE FROM NE 145TH ST TO NE 147TH ST	29	3	10%	6	21%
TH AVE NE FROM NE 147TH ST TO NE 148TH ST	14	2	14%	2	14%
TH AVE NE FROM NE 148TH ST TO NE 150TH ST	13	7	54%	2	15%
TH AVE NE FROM NE 148111 ST TO NE 150111 ST TH AVE NE FROM NE 150TH ST TO NE 151ST ST	7	7	100%	5	71%
TH AVE NE FROM NE 151ST ST TO NE 151ST ST TH AVE NE FROM NE 151ST ST TO NE 152ND ST	13	5	38%	2	15%
TH AVE NE FROM NE 152ND ST TO NE 152ND ST	43	6	14%	4	9%
TH AVE NE FROM NE 155TH ST TO NE 160TH ST	70	24	34%	14	20%
TH AVE NE FROM NE 160TH ST TO NE 165TH ST	79	17	22%	11	14%
TH AVE NE FROM NE 146TH ST TO NE 147TH ST	18	2	11%	4	22%
TH AVE NE FROM NE 148TH ST TO NE 150TH ST	16	7	44%	10	63%
TH AVE NE FROM NE 150TH ST TO NE 150TH ST	3	0	0%	0	0%
TH AVE NE FROM NE 155TH ST TO NE 160TH ST	86	31	36%	13	15%
TH AVE NE FROM NE 160TH ST TO NE 165TH ST	75	40	53%	26	35%
TH PL NE FROM NE 146TH ST TO NE 147TH ST	18	8	44%	8	44%
TH PL NE FROM NE 148TH ST TO NE 150TH ST	14	4	29%	2	14%
TH PL NE FROM NE 150TH ST TO STREET END	1	1	100%	1	100%
AGLEY PL N FROM N 154TH ST TO STREET END	4	б	150%	3	75%
JRKE AVE N FROM STREET END TO N 147TH ST	12	4	33%	1	8%
URKE AVE N FROM N 147TH ST TO N 148TH ST	12	1	8%	0	0%
URKE AVE N FROM N 149TH ST TO N 150TH ST	5	2	40%	2	40%
ORLISS AVE N FROM N 145TH ST TO N 146TH ST	8	5	63%	1	13%
ORLISS AVE N FROM N 146TH ST TO N 147TH ST	13	1	8%	1	8%
ORLISS AVE N FROM N 147TH ST TO N 148TH ST	24	3	13%	4	17%
ORLISS AVE N FROM N 148TH ST TO N 149TH ST	12	9	75%	6	50%
ORLISS AVE N FROM N 149TH ST TO N 150TH ST	10	1	10%	0	0%
ORLISS PL N FROM N 153RD ST TO N 154TH ST	12	9	75%	6	50%
ORLISS PL N FROM N 154TH ST TO STREET END	2	3	150%	5	250%
146TH ST FROM STREET END TO CORLISS AVE N	13	10	77%	4	31%
147TH ST FROM CORLISS AVE N TO 1ST AVE NE	30	12	40%	10	33%

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STREET SEGMENT NAME - LOCAL STREETS	CAPACITY	4AM-6AM COUNTS	4AM-6AM DEMAND	10AM-NOON COUNTS	10AM-NOON DEMAND
N 147TH ST FROM WALLINGFORD AV N TO BURKE AVE N	19	1	5%	0	0%
N 148TH ST FROM STREET END TO BURKE AVE N	5	3	60%	1	20%
N 148TH ST FROM BURKE AVE N TO MERIDIAN AVE N	5	5	100%	3	60%
N 148TH ST FROM MERIDIAN AVE N TO CORLISS AVE N	29	12	41%	7	24%
N 148TH ST FROM CORLISS AVE N TO 1ST AVE NE	19	9	47%	3	16%
N 149TH ST FROM STREET END TO BURKE AVE N N 149TH ST FROM CORLISS AVE N TO 1ST AVE NE	3 19	0	0% 58%	1 11	33% 58%
N 150TH ST FROM WALLINGFORD AV N TO BURKE AVE N	8	3	38%	5	63%
N 150TH ST FROM BURKE AVE N TO MERIDIAN AVE N	12	0	0%	13	108%
N 150TH ST FROM MERIDIAN AVE N TO CORLISS AVE N	24	11	45%	7	29%
N 153RD PL FROM STREET END TO MERIDIAN AVE N	3	4	133%	2	67%
N 153RD ST FROM MERIDIAN AVE N TO CORLISS PL N	22	9	41%	4	18%
N 154TH ST FROM MERIDIAN AVE N TO BAGLEY PL N	11	4	36%	3	27%
N 154TH ST FROM BAGLEY PL N TO CORLISS PL N	15	7	47%	3	20%
NE 146TH ST FROM 9TH AVE NE TO 9TH PL NE	7	6	86%	7	100%
NE 146TH ST FROM STREET END TO 12TH AVE NE	8	4	50%	1	13%
NE 146TH ST FROM 15TH AVE NE TO 17TH AVE NE NE 146TH ST FROM 17TH AVE NE TO 20TH AVE NE	26	12	46%	6	23%
NE 146TH ST FROM 17TH AVE NE TO 20TH AVE NE NE 147TH ST FROM 1ST AVE NE TO STREET END	25 34	11 7	44%	9	30%
NE 147TH ST FROM 1ST AVE NE TO STREET END	54 7	2	29%	1	18%
NE 147TH ST FROM 9TH AVE NE TO 9TH PL NE	14	2	14%	1	7%
NE 147TH ST FROM 9TH PL NE TO STREET END	14	3	21%	1	7%
NE 147TH ST FROM 15TH AVE NE TO 17TH AVE NE	24	15	63%	8	33%
NE 147TH ST FROM 17TH AVE NE TO 20TH AVE NE	20	19	95%	16	80%
NE 147TH ST FROM 20TH AVE NE TO 22ND AVE NE	20	4	20%	0	0%
NE 148TH ST FROM STREET END TO 5TH AVE NE	24	3	13%	2	8%
NE 148TH ST FROM STH AVE NE TO 6TH AVE NE	11	3	27%	1	9%
NE 148TH ST FROM 6TH AVE NE TO 8TH AVE NE	15	7	47%	2	13%
NE 148TH ST FROM 9TH AVE NE TO 9TH PL NE NE 148TH ST FROM 12TH AVE NE TO 15TH AVE NE	15	5	33%	2	13%
NE 148TH ST FROM 12TH AVE NE TO 15TH AVE NE NE 148TH ST FROM 15TH AVE NE TO 17TH AVE NE	24 34	17 29	71% 85%	19 32	79% 94%
NE 148TH ST FROM 17TH AVE NE TO 20TH AVE NE	27	19	70%	13	48%
NE 149TH ST FROM STREET END TO 5TH AVE NE	25	20	80%	17	68%
NE 150TH ST FROM 8TH AVE NE TO 9TH AVE NE	3	0	0%	0	0%
NE 150TH ST FROM 9TH AVE NE TO 9TH PL NE	10	0	0%	0	0%
NE 151ST ST FROM 3RD AVE NE TO 5TH AVE NE	24	5	21%	5	21%
NE 151ST ST FROM 8TH AVE NE TO 10TH AVE NE	34	11	32%	10	29%
NE 152ND ST FROM 3RD AVE NE TO 5TH AVE NE	30	4	13%	5	17%
NE 152ND ST FROM 5TH AVE NE TO 6TH AVE NE	8	3	38%	4	50%
NE 152ND ST FROM 6TH AVE NE TO 8TH AVE NE NE 152ND ST FROM 8TH AVE NE TO 10TH AVE NE	17 31	2 8	12% 26%	1	6% 10%
NE 152ND ST FROM 8TH AVE NE TO 10TH AVE NE	11	3	20%	1	9%
NE 152ND ST FROM 12TH AVE NE TO 12TH AVE NE	11	20	111%	14	78%
NE 153RD ST FROM STREET END TO 5TH AVE NE	21	6	29%	3	14%
NE 154TH ST FROM STREET END TO 12TH AVE NE	5	2	40%	2	40%
NE 156TH ST FROM STREET END TO 3RD AVE NE	16	4	25%	1	6%
NE 156TH ST FROM 3RD AVE NE TO 5TH AVE NE	32	20	63%	9	28%
NE 157TH ST FROM 3RD AVE NE TO 5TH AVE NE	28	14	50%	7	25%
NE 158TH ST FROM 1ST AVE NE TO 3RD AVE NE	33	12	36%	9	27%
NE 158TH ST FROM 3RD AVE NE TO 5TH AVE NE	36	16	44%	15	42%
NE 158TH ST FROM 10TH AVE NE TO 11TH AVE NE	7	1	14%	0	0%
NE 158TH ST FROM 11TH AVE NE TO 12TH AVE NE NE 158TH ST FROM 12TH AVE NE TO 14TH AVE NE	15 20	7	47%	3	20%
NE 158TH ST FROM 12TH AVE NE TO 14TH AVE NE	11	1	5% 9%	0	0%
NE 158TH ST FROM 14TH AVE NE TO 15TH AVE NE	33	21	9% 64%	12	36%
NE 159TH ST FROM 3RD AVE NE TO 5TH AVE NE	28	10	36%	5	18%
NE 160TH ST FROM STH AVE NE TO 6TH AVE NE	15	5	33%	3	20%
NE 160TH ST FROM 6TH AVE NE TO 8TH AVE NE	22	4	18%	4	18%
NE 160TH ST FROM 8TH AVE NE TO 9TH AVE NE	18	6	33%	5	28%
NE 160TH ST FROM 9TH AVE NE TO 10TH AVE NE	14	1	7%	2	14%
NE 161ST ST FROM 1ST AVE NE TO 3RD AVE NE	27	15	56%	13	48%
NE 161ST ST FROM 3RD AVE NE TO 5TH AVE NE	28	14	50%	12	43%
NE 162ND ST FROM 3RD AVE NE TO STH AVE NE	31	23	74%	12	39%
NE 162ND ST FROM 11TH AVE NE TO 12TH AVE NE NE 162ND ST FROM 12TH AVE NE TO 14TH AVE NE	17 18	0	0% 17%	0	0%
NE 162ND ST FROM 12TH AVE NE TO 14TH AVE NE NE 162ND ST FROM 14TH AVE NE TO 15TH AVE NE	18	3	6%	0	0%
NE 162ND ST FROM 14TH AVE NE TO 15TH AVE NE	47	15	32%	11	23%
NE 164TH ST FROM STREET END TO 4TH AVE NE	14	3	21%	2	14%
NE 165TH ST FROM STREET END TO 3RD AVE NE	10	3	30%	4	40%
NE 165TH ST FROM 3RD AVE NE TO 4TH AVE NE	1	0	0%	1	100%
NE 165TH ST FROM 4TH AVE NE TO 4TH AVE NE	1	0	0%	0	0%
NE 165TH ST FROM 4TH AVE NE TO 5TH AVE NE	15	1	7%	9	60%
NE 165TH PL FROM STREET END TO 3RD AVE NE	6	3	50%	2	33%
NE 166TH ST FROM 3RD AVE NE TO 3RD PL NE	9	0	0%	0	0%
NE 167TH ST FROM 3RD PL NE TO 5TH AVE NE	19	6	32%	2	11%
SUNNYSIDE AVE N FROM N 145TH ST TO STREET END	13	7	54%	5	38%
WALLINGFORD AV N FROM N 145TH ST TO N 147TH ST	25	5	20%	4	16%

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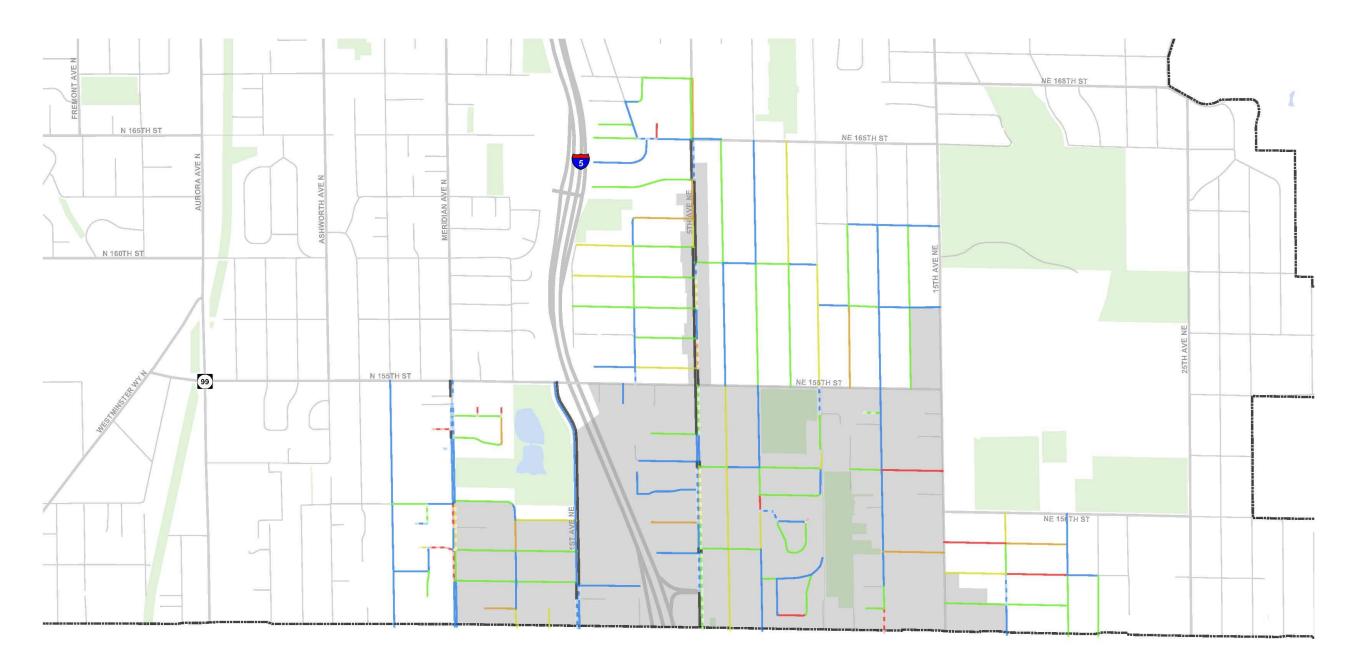
9a-69

STREET SEGMENT NAME - LOCAL STREETS	CAPACITY	4AM-6AM COUNTS	4AM-6AM DEMAND	10AM-NOON COUNTS	10AM-NOON DEMAND
WALLINGFORD AV N FROM N 147TH ST TO N 150TH ST	28	5	18%	3	11%
WALLINGFORD AV N FROM N 150TH ST TO N 155TH ST	50	11	22%	22	44%

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Appendix O – 145th Study Area Parking Demand Maps





Parking Utilization Shoreline South Station Area

Early AM Demand

Parking Utilization

- 25% to 50% ----- Greater than 85%

Dashed lines represent roads with a car capacity of 5 or less

Note: Some high demand streets have low capacity parking and/or overparking

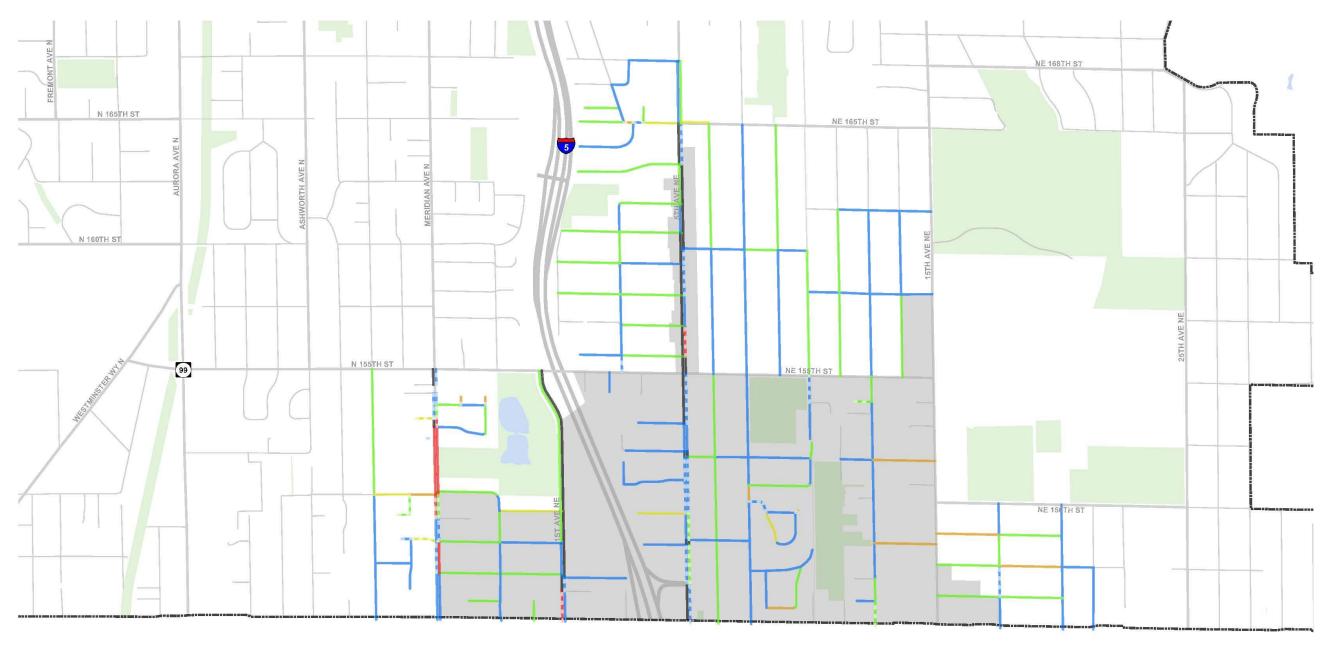


This map is not an official map. No warranty is made concerning the accuracy, currency, or completeness of data depicted on this map.

Attachment A

0 250 500 1,000 Feet

Appendix O – 145th Study Area Parking Demand Maps





Parking Utilization Shoreline South Station Area

Late AM Demand

Parking Utilization

----- 25% to 50% ----- Greater than 85% 50% to 70% — Parking Prohibited

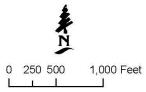
This map is not an official map. No warranty is made concerning the accuracy, currency, or completeness of data depicted on this map.

Dashed lines represent roads with a car capacity of 5 or less

Note: Some high demand streets have low capacity parking and/or overparking

Attachment A

Date: 10/4/2019 Request ID: 22671



IBSTI STUDY AREA - ARTRIALS CCAPACITY 3:30 6-MAT (2004) 3:30 6-MAT (2004) 0 N S W E N S W E N S W E N S W E N S W E N S W E N S W E N S W E N S W E N S W E N S W E N S W E N S W E N S U N S U N S U N S W E N S W E N S U N S U N S N N S N S N S S N S S N S N	IAM DEMAN S W 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 35% 33% NP NP NP 0 NP 0 NP 0 NP NP NP <	E 100% 38% 100% 0% 40% 25% 13% 29% 60% 13% 29% 60% NP NP 0% 100% 100% 100% 50% NP NP
DTH AVE & F. FOM & B. 22PH ST TO & E. SERVITINE PL 4 3 0 0 0% 0% 0 3 DTH AVE & F. FOM & E. ST TH TH, TO NE 12PH PL 6. 8 0 4 0% 0% 0% 0 3 DTH AVE & F. FOM & E. STTH PL TO NE 12PH PL 6. 8 0 4 0% 0% 0% 0 3 0 DTH AVE & F. FOM & E. STTH PL TO NE 12PH PL 7 3 3 2 4.3% 0% 0 2 0 1 DTH AVE & F. FOM & E. STTH ST TO RE 13PH PL 1 1 1.3% 2.3% 0% 0 2 1 0 6% 6 2 1 0 6% 6 2 1 0 0% 6 2 1 0 1 0 1	0% 0% NP 29% 0% 35% 33% NP	100% 38% 100% 0% 40% 25% 13% 29% 60% NP NP 0% 100% 100% 50% NP NP
DTH AVE R.F. ROM N.E. SERPENTINE PL. TO N.E. 327TH PL. 6. 8. 0. 4. 0.0% 50% 0. 5. DTH AVE R.F. ROM N.E. 327TH PL TO N.E. 327TH PL. N.P. 2. N.P. 1 N.P. 2. 0. DTH AVE R.F. ROM N.E. 327TH PL TO N.E. 328TH ST. 7. 3. 3. 2. A3% 67% 2. 0. DTH AVE R.F. ROM N.E. 328TH ST. DK.E. 328TH ST. 6. 5. 1. 1. 1.33 2. 2.33% 2. 2. 2. DTH AVE N.F. ROM N.E. 328TH ST. DK.E. 389TH ST. 6. 5. 2. 2. 3.3% 2. 2. 2. 1.07% AVE N.E. 325TK TO N.E. 325TK TO N.E. 325TK TO N.P. N.P. N.P. N.P. A.P. 2. N.P. N.P.<	0% NP 29% 0% 35% 33% NP	38% 100% 0% 40% 25% 13% 29% 60% NP NP 0% 100% 100% 50% NP NP
DTH AVE NE FROM NE 127TH PL TONE 127TH PL NP 2 NP 1 NP 50% NP 2 DTH AVE NE FROM NE 1287H PL TONE 1820TH ST 7 3 3 2 4.35% 6.75% 2 0 DTH AVE NE FROM NE 1280TH ST DO RE 13STH ST 17 9 5 1 1 13% 20% 0 2 DTH AVE NE FROM NE 1280TH ST DO RE 13STH ST 17 8 3 0 6% 0% 6 2 DTH AVE NE FROM NE 1285TH ST DO RE 13STH ST 0 7 NP 7 NP 2 33% 13% 20% 6 2 2 DTH AVE NE FROM NE 1285TST TO NE 13STH ST NP	29% 0% 35% 33% NP NP NP NP 50% 50% NP NP NP NP NP NP NP NP NP NP NP NP NP	100% 0% 40% 25% 13% 29% 60% NP 0% 100% 100% 50% NP NP
IDTH AVE NEPROM NE 1820 DT ONE 18200 ST 9 5 1 1 13% 20% 0 2 IDTH AVE NEPROM NE 1820 DT ONE 183TH ST 17 8 1 0 665 0% 66 2 IDTH AVE NEPROM NE 188TH ST TO NE 189TH ST NP 7 NP 2 33% 13% 2 2 IDTH AVE NEPROM NE 188TH ST TO NE 199TH ST NP 5 NP 2 NP 2 NP 2 10 IDTH AVE NEPROM NE 189TH ST TO NE 199TH ST NP NP <td>0% 35% 33% NP NP NP NP 50% NP NP</td> <td>40% 25% 13% 29% 60% NP NP 0% 100% 100% 50% NP NP</td>	0% 35% 33% NP NP NP NP 50% NP	40% 25% 13% 29% 60% NP NP 0% 100% 100% 50% NP NP
IDTH AVE NEFROM NE JERNEST TO NE JESTH ST IDT IDT <thidt< th=""> IDT <thidt< th=""></thidt<></thidt<>	35% 33% NP NP NP NP 50% 50% NP NP NP NP NP NP NP NP NP NP NP NP NP	25% 13% 29% 60% NP NP 0% 100% 100% 50% NP NP
IDTH AVE NEP FROM NE 188TH ST TO NE 198TH ST G 15 2 2 33% 13% 2 2 2 IDTH AVE NEP FROM NE 188TH ST TO NE 199TH ST NP 7 NP 4 NP 8 0 3 IDTH AVE NEP FROM NE 127IST TO NE 127IST NP	33% NP NP NP S0% S0% NP	13% 29% 60% NP NP 0% 100% 100% 50% NP NP
IDTH AVE N.F. FROM. NE 1981TH ST DN E 1987TH ST NP 7 NP 2 NP	NP NP NP NP S0% NP	29% 60% NP 0% 100% 100% 50% NP NP
IDTH AVE IN FROM NE 1997H ST ON & 1997H ST NP S NP 4 NP 80% 0 3 ISTH AVE IN FROM NE 1735T ST TO NE 171ST ST NP NP <td>NP NP NP 50% NP NP</td> <td>60% NP NP 0% 100% 100% 50% NP NP</td>	NP NP NP 50% NP	60% NP NP 0% 100% 100% 50% NP NP
ISTH AVE NE FROM NE 27DT ST TO NE 27DT ST NP NP </td <td>NP NP 50% NP NP NP NP NP NP NP NP NP NP NP NP</td> <td>NP NP 0% 100% 100% 50% NP NP NP</td>	NP NP 50% NP NP NP NP NP NP NP NP NP NP NP NP	NP NP 0% 100% 100% 50% NP NP NP
ISTH AVE NE FROM NE 127ST TO NE 127ST OST NP NP </td <td>NP 50% NP NP NP NP NP NP NP NP NP NP NP NP</td> <td>NP 0% 100% 100% 50% NP NP</td>	NP 50% NP NP NP NP NP NP NP NP NP NP NP NP	NP 0% 100% 100% 50% NP NP
ISTH AVE N.E FROM N.E 12ZND ST TO N.E 175TH ST NP 6 NP 0 NP 0% NP 0 ISTH AVE N.E FROM N.E 175TH ST TO N.E 175TH ST T 2 TL 2 100% 10% 1 4 ISTH AVE N.E FROM N.E 175TH ST TO N.E 175TH ST 1 1 1 1 4 ISTH AVE N.E FROM N.E 130TH ST 1 1 1 1 1 4 ISTH AVE N.E FROM N.E 130TH ST 1 1 1 1 1 1 1 1 ISTH AVE N.E FROM N.E 130TH PL N.E NP	NP 50% NP	0% 100% 100% 50% NP NP
LSTH AVE N.E FROM N.E 175TH ST TO N.E 177TH ST TL 2 TL 2 TL 2 100% TL 2 LSTH AVE N.E FROM N.E 175TH ST TO N.E 177TH ST 2 4 2 7 100% 175% 1 4 LSTH AVE N.E FROM N.E 177TH ST TO N.E 107TH ST 1 1 1 1 1 4 LSTH AVE N.E FROM N.E 177TH ST TO N.E 107TH PL N.E N.P 2 N.P 3 N.P 150% N.P 1 LSTH AVE N.E FROM ST 197 LNE NE AVE N.E N.P 2 N.P	50% NP NP NP NP NP NP NP NP NP NP	100% 100% 50% NP NP
ISTH AVE NE FROM NE 177TH ST TO NE 179TH ST 2 4 2 7 100% 173% 1 4 ISTH AVE NE FROM NE 137TH ST TO NE 180TH ST Iul TL Iul TL Iul TL Iul TL ISTH AVE NE FROM NE 130TH PLNE NP INP NP	NP NP NP NP NP NP NP NP NP	100% 50% NP NP
ISTH AVE NE FROM N.E 139TH ST TO N.E 180TH ST Iul TL Iul TL Iul TL ISTH AVE NE FROM N.E 139TH ST TO N.E 180TH ST Iul NP 2 NP 3 NP 150% NP 1 ISTH AVE NE FROM IST TO LED TO 3TH AVE NE NP	NP NP NP NP NP NP NP NP NP	50% NP NP
ISTH AVE NE FROM NE 180TH ST TO 15TH PLNE NP NP Q NP 3 NP 1 ISTH AVE NE FROM XET NUE TO X 128TH ST NP NP <t< td=""><td>NP NP NP NP NP NP NP NP</td><td>NP NP</td></t<>	NP NP NP NP NP NP NP NP	NP NP
ISTH AVE NE FROM 15TH PLNE TO 24TH AVE NE NP	NP NP NP NP NP NP NP NP	NP NP
ISTH AVE N.E FROM 24TH AVE N.E TO N.E 188TH ST NP	NP NP NP NP NP NP	NP
15TH AVE N.E FROM N.E 188TH ST TO N.E PERKINS WY NP	NP NP NP NP NP NP	-
IST AVE NE FROM N 185TH ST ON 187TH ST NP NP <th< td=""><td>NP NP NP NP NP</td><td>I NP</td></th<>	NP NP NP NP NP	I NP
1ST AVE NE FROM N 187TH ST TO N 188TH ST NP <	NP NP NP NP	NP
IST AVE NE FROM N 188TH ST TO N 190TH ST NP <	NP NP NP	NP
IST AVE NE FROM N 190TH ST TO N 190TH CT NP <	NP NP	NP
1ST AVE NE FROM N 192ND ST ON 193RD ST 2 NP 2 NP 100% NP 1 NP STH AVE NE FROM NE SERPENTINE PLTO NE 178TH ST 1 4 0 1 0% 25% 0 1 STH AVE NE FROM NE 178TH PLTO NE 178TH PL 2 4 0 1 0% 25% 0 1 STH AVE NE FROM NE 178TH PLTO NE 179TH PL 5 4 0 1 0% 25% 0 0 1 STH AVE NE FROM NE 187H PLTO NE 189TH PL 5 4 0 1 0% 25% 0 0 0 STH AVE NE FROM NE 180TH ST TO NE 180TH ST 2 4 0 0 0% 0% 2 0 0 STH AVE NE FROM NE 180TH ST TO NE 182ND CT 3 9 0 3 0% 33% 1 3 STH AVE NE FROM NE 183RD CT TO TO THA VE NE NP 4 NP 0 NP NP 0 NP 0 1 1 3 STH AVE NE FROM NE 183RD CT TO TO THAVE NE NP 10 NP 0 NP 0 1<		NP
STH AVE NE FROM NE SERPENTINE PL TO NE 178TH ST 1 4 0 1 0% 25% 0 1 STH AVE NE FROM NE 178TH ST TO NE 178TH PL 2 4 0 1 0% 25% 0 1 STH AVE NE FROM NE 178TH PL TO NE 178TH PL 5 4 0 1 0% 25% 0 0 STH AVE NE FROM NE 178TH PL TO NE 180TH ST 2 4 0 0 0% 0% 2 0 0 STH AVE NE FROM NE 139TH PL TO NE 180TH ST 2 4 0 0 0% 0% 2 0 0 STH AVE NE FROM NE 180TH ST ON E 182ND CT 3 9 0 3 0% 33% 1 3 STH AVE NE FROM NE 183RD CT TO 7TH AVE NE NP 0 1 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1		NP
STH AVE NE FROM NE 178TH PL TO NE 178TH PL 2 4 0 1 0% 25% 0 1 STH AVE NE FROM NE 178TH PL TO NE 179TH PL 5 4 0 1 0% 25% 0 0 STH AVE NE FROM NE 179TH PL TO NE 180TH ST 2 4 0 0 0% 0% 2 0 STH AVE NE FROM NE 130TH ST 2 4 0 0 0% 0% 2 0 STH AVE NE FROM NE 182TH ST TO NE 182ND CT 3 9 0 3 0% 33% 1 3 STH AVE NE FROM NE 182ND CT TO NE 183RD CT NP 0 5 5 5 5 1 5 4 NP 0 NP 0 1 1 5 0 1 1 5 0 1 1 5 1 5 1 5 1 1 1 </td <td>50%</td> <td>NP</td>	50%	NP
STH AVE NE FROM NE 178TH PL TO NE 179TH PL 5 4 0 1 0% 25% 0 0 STH AVE NE FROM NE 179TH PL TO NE 180TH ST 2 4 0 0 0% 0% 2 0 STH AVE NE FROM NE 180TH ST TO NE 182ND CT 3 9 0 3 0% 33% 1 3 STH AVE NE FROM NE 182ND CT TO NE 183RD CT NP	0%	25%
STH AVE NE FROM NE 179TH PL TO NE 180TH ST 2 4 0 0 0% 0% 2 0 STH AVE NE FROM NE 180TH ST TO NE 182ND CT 3 9 0 3 0% 33% 1 3 STH AVE NE FROM NE 182ND CT TO NE 183RD CT NP 0 NP NP 0 NP 0 NP 0 1 NP 1 1 1 1 1 1 1 1 1	0%	25%
STH AVE NE FROM NE 180TH ST TO NE 182ND CT 3 9 0 3 0% 33% 1 3 1 3 STH AVE NE FROM NE 182ND CT TO NE 183RD CT NP 0 NP 0% NP 0 NP 0% 0 1 NP 1 NP 0 NP 0% 0 1 NP 1 NP 0 NP 0 NP 0 1 <	0%	0%
STH AVE NE FROM NE 182ND CT TO NE 183RD CT NP	100%	0%
STH AVE NE FROM NE 183RD CT TO 7TH AVE NE NP 4 NP 0 NP 0% NP 0 1 STH AVE NE FROM NE 185TH ST TO NE 189TH ST NP 10 NP 6 NP 60% 0 5 1 STH AVE NE FROM NE 189TH ST TO NE 189TH CT NP 2 NP 0 NP 0% 0 1 1 STH AVE NE FROM NE 189TH CT TO NE 190TH ST 2 NP 1 NP 0% NP 2 NP STH AVE NE FROM NE 190TH ST TO NE 190TH PL NP 8 NP 0 NP 0% NP 2 NP STH AVE NE FROM NE 190TH ST TO NE 190TH PL NP 8 NP 0 NP 0% NP 0 1 STH AVE NE FROM NE 190TH PL TO NE 192ND ST NP 1 NP 0 NP 0% NP 0 1 0 1 <t< td=""><td>33%</td><td>33%</td></t<>	33%	33%
STH AVE NE FROM NE 185TH ST TO NE 189TH ST NP 10 NP 6 NP 60% 0 5 1 STH AVE NE FROM NE 189TH ST TO NE 189TH CT NP 2 NP 0 NP 0% 0 1 1 STH AVE NE FROM NE 189TH CT TO NE 190TH ST 2 NP 1 NP 50% NP 2 NP STH AVE NE FROM NE 190TH ST TO NE 190TH ST 2 NP 1 NP 50% NP 2 NP STH AVE NE FROM NE 190TH PL TO NE 190TH PL NP 8 NP 0 NP 0% NP 0 NP 0 STH AVE NE FROM NE 190TH PL TO NE 192ND ST NP 1 NP 0 NP 0% NP 0 1 0 3 0 1 0 3 0	NP	NP
STH AVE NE FROM NE 189TH ST TO NE 189TH CT NP 2 NP 0 NP 0% 0 1 1 STH AVE NE FROM NE 189TH CT TO NE 190TH ST 2 NP 1 NP 50% NP 2 NP 0 STH AVE NE FROM NE 190TH ST TO NE 190TH PL NP 8 NP 0 NP 0% NP 0 NP 0 STH AVE NE FROM NE 190TH PL TO NE 192ND ST NP 1 NP 0 NP 0% NP 0 NP 0 STH AVE NE FROM NE 192ND ST TO NE 193RD ST NP 1 NP 0 NP 0% NP 0 NP 0 STH AVE NE FROM NE 192ND ST TO NE 193RD ST NP 5 NP 3 NP 60% NP 2 0 1 ASHWORTH AVE N FROM N 180TH ST TO N 183RD ST NP 0 NP NP <td>NP</td> <td>0%</td>	NP	0%
STH AVE NE FROM NE 189TH CT TO NE 190TH ST 2 NP 1 NP 50% NP 2 NP 1 STH AVE NE FROM NE 190TH ST TO NE 190TH PL NP 8 NP 0 NP 0% NP 0 1 STH AVE NE FROM NE 190TH PL TO NE 192ND ST NP 1 NP 0 NP 0% NP 0 1 STH AVE NE FROM NE 190TH PL TO NE 193ND ST NP 1 NP 0 NP 0% NP 0 1 STH AVE NE FROM NE 192ND ST TO NE 193RD ST NP 5 NP 3 NP 0% NP 2 1 STH AVE NE FROM NE 193RD ST TO NE 193RD ST NP 5 NP 3 NP 60% NP 2 1 ASHWORTH AVE N FROM N 180TH ST TO N 183RD ST 1 5 0 1 0% 50% 0 1	NP	50%
STH AVE NE FROM NE 190TH ST TO NE 190TH PL NP 8 NP 0 NP 0% NP 0 1 STH AVE NE FROM NE 190TH PL TO NE 192ND ST NP 1 NP 0 NP 0% NP 0 1 STH AVE NE FROM NE 192ND ST TO NE 193RD ST NP 5 NP 3 NP 60% NP 2 1 STH AVE NE FROM NE 193RD ST TO NE 193RD ST 1 5 0 1 0% 20% 0 1 1 5 0 1 0% 20% 0 1 1 5 0 1 0% 20% 0 1 1 5 0 1 0% 20% 0 1 1 5 0 1 0% 20% 0 1	NP	50%
STH AVE NE FROM NE 190TH PL TO NE 192ND ST NP 1 NP 0 NP 0% NP 0 1 STH AVE NE FROM NE 192ND ST TO NE 193RD ST NP 5 NP 3 NP 60% NP 2 1 STH AVE NE FROM NE 193RD ST TO NE 193TH ST 1 5 0 1 0% 20% 0 1 1 ASHWORTH AVE N FROM N 180TH ST TO N 183RD ST NP 0 NP NP NP NP NP NP NP 1 1 1 1 1 1 0% 1 0% 1 1 1 1 1 1 1 1 1 0% 1 0% 1 <t< td=""><td>100%</td><td>NP 0%</td></t<>	100%	NP 0%
STH AVE NE FROM NE 192ND ST TO NE 193RD ST NP 5 NP 3 NP 60% NP 2 1 STH AVE NE FROM NE 193RD ST TO NE 195TH ST 1 5 0 1 0% 20% 0 1 1 5 0 1 0% 20% 0 1 1 1 1 1 1 1 1 0% 20% 0 1	NP	0%
STH AVE NE FROM NE 193RD ST TO NE 195TH ST 1 5 0 1 0% 20% 0 1 1 5 ASHWORTH AVE N FROM N 180TH ST TO N 183RD ST NP 0 NP	NP	40%
ASHWORTH AVE N FROM N 180TH ST TO N 183RD ST NP 0 NP	0%	20%
ASHWORTH AVE N FROM N 183RD ST TO N 185TH ST 6 2 0 1 0% 50% 0 1 1 ASHWORTH AVE N FROM N 185TH ST TO N 185TH ST 12 2 4 1 33% 50% 3 0 1 ASHWORTH AVE N FROM N 185TH ST TO N 188TH ST 12 2 4 1 33% 50% 3 0 1 ASHWORTH AVE N FROM N 188TH ST TO N 190TH ST 13 4 5 1 38% 25% 0 0 1 ASHWORTH AVE N FROM N 190TH ST TO N 192ND ST 8 4 2 2 25% 50% 2 1 MERIDIAN AVE N FROM N 178TH ST TO N 179TH ST 10 6 0 0 0% 0% 2 0	NP	2070
ASHWORTH AVE N FROM N 185TH ST TO N 188TH ST 12 2 4 1 33% 50% 3 0 0 ASHWORTH AVE N FROM N 185TH ST TO N 190TH ST 13 4 5 1 38% 25% 0 0 0 ASHWORTH AVE N FROM N 188TH ST TO N 190TH ST 8 4 2 2 25% 0 0 0 ASHWORTH AVE N FROM N 190TH ST TO N 192ND ST 8 4 2 2 25% 50% 2 1 0 MERIDIAN AVE N FROM N 178TH ST TO N 179TH ST 10 6 0 0 0% 0% 2 0 0	0%	50%
ASHWORTH AVE N FROM N 188TH ST TO N 190TH ST 13 4 5 1 38% 25% 0	25%	0%
MERIDIAN AVE N FROM N 178TH ST TO N 179TH ST 10 6 0 0 0% 0% 2 0	0%	0%
	25%	25%
MERIDIAN AVE N FROM N 179TH ST TO N 180TH ST 9 12 0 1 0% 8% 4 2	20%	0%
	44%	17%
MERIDIAN AVE N FROM N 180TH ST TO N 183RD ST 17 21 0 0 0% 8 0	47%	0%
MERIDIAN AVE N FROM N 183RD ST TO N 184TH ST 2 2 0 0 0% 0 0	0%	0%
MERIDIAN AVE N FROM N 184TH ST TO N 184TH PL NP N	NP	NP
MERIDIAN AVE N FROM N 184TH PL TO N 185TH ST 6 NP 0 NP 0 NP 0 NP	0%	NP
MERIDIAN AVE N FROM N 185TH ST TO N 187TH ST 3 3 2 1 67% 33% 1 2	33%	67%
MERIDIAN AVE N FROM N 187TH ST TO N 188TH ST 3 2 1 0 33% 0% 2 0	67%	0%
MERIDIAN AVE N FROM N 188TH ST TO N 189TH ST 2 7 0 2 0% 29% 0 1	0%	14%
MERIDIAN AVE N FROM N 189TH ST TO N 190TH ST 9 7 0 4 0% 57% 0 3	0%	43%
	JP	
	7%	
	3% %	-
	5%	-
	9%	-
	0%	
	2%	1
	1%	
		1
	%	
	% 7%	
		1
NE PERKINS WY FROM 12TH AVE NE TO 15TH AVE NE NP 12 NP 8 NP 67% NP 7 NP 5	7%	

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Appendix P - 185th Study Area Capacity and Demand Tal		4AM-6AM COUNTS	4AM-6AM DEMAND	10AM-NOON COUNTS	10AM-NOON DEMAND
10TH AVE NE FROM NE 170TH ST TO NE 171ST PL	8	2	25%	3	38%
10TH AVE NE FROM NE 171ST PL TO NE 172ND PL	6	1	17%	1	17%
10TH AVE NE FROM NE 172ND PL TO NE 174TH ST	24	5	21%	1	4%
10TH AVE NE FROM NE 174TH ST TO NE 175TH ST	10	1	10%	2	20%
10TH AVE NE FROM NE 190TH ST TO NE PERKINS WY 10TH AVE NE FROM NE PERKINS WY TO NE 194TH ST	2 62	1 10	50% 16%	10	0% 16%
10TH AVE NE FROM NE 194TH ST TO NE 195TH ST	10	0	0%	10	10%
11TH AVE NE FROM NE 170TH ST TO NE 175TH ST	35	20	57%	20	57%
11TH AVE NE FROM NE SERPENTINE PL TO NE 180TH ST	58	28	48%	19	33%
11TH AVE NE FROM NE 182ND ST TO NE 185TH ST	33	26	79%	19	58%
11TH AVE NE FROM STREET END TO NE 190TH ST 12TH AVE NE FROM NE 170TH ST TO NE 175TH ST	13 44	4 48	31% 109%	5 32	38% 73%
12TH AVE NE FROM NE 175TH ST TO NE 177TH ST	24	36	150%	24	100%
12TH AVE NE FROM NE 177TH ST TO NE 180TH ST	22	20	91%	12	55%
12TH AVE NE FROM NE 180TH ST TO NE 181ST PL	14	9	64%	10	71%
12TH AVE NE FROM NE 181ST PL TO NE 183RD ST	8	2	25%	1	13%
12TH AVE NE FROM NE 183RD ST TO NE 184TH ST	11	1	9%	0	0%
12TH AVE NE FROM NE 184TH ST TO NE 185TH ST 12TH AVE NE FROM NE 187TH ST TO NE 188TH ST	8	1 6	13% 35%	1	13% 29%
13TH AVE NE FROM 12TH PL NE TO STREET END	28	25	89%	16	57%
14TH AVE NE FROM NE 170TH ST TO STREET END	27	21	78%	16	59%
14TH AVE NE FROM NE 185TH ST TO NE 187TH ST	5	5	100%	2	40%
15TH PL NE FROM 15TH AVE NE TO NE 184TH PL	8	0	0%	0	0%
1ST AVE NE FROM N 178TH ST TO N 179TH ST	12	2	17%	3	25%
1ST AVE NE FROM N 179TH ST TO N 180TH ST 1ST AVE NE FROM N 180TH ST TO N 185TH ST	10 34	3 13	30% 38%	2 8	20% 24%
2ND AVE NE FROM NE 180TH ST TO NE 185TH ST	49	15	35%	12	24%
2ND PL NE FROM STREET END TO NE 178TH ST	16	0	0%	0	0%
3RD AVE NE FROM NE 178TH ST TO STREET END	11	1	9%	0	0%
3RD AVE NE FROM NE 180TH ST TO NE 185TH ST	41	19	46%	18	44%
3RD AVE NE FROM NE 192ND ST TO NE 193RD ST	10	0	0%	0	0%
7TH AVE NE FROM NE 180TH ST TO NE 183RD ST 7TH AVE NE FROM NE 183RD ST TO STREET END	33	10	30% 0%	7	21% 100%
7TH AVE NE FROM THE 185KD ST TO STREET END	22	4	18%	3	14%
8TH AVE NE FROM NE SERPENTINE PL TO NE 179TH ST	17	1	6%	1	6%
8TH AVE NE FROM NE 179TH ST TO NE 180TH ST	10	0	0%	0	0%
8TH AVE NE FROM NE 180TH ST TO NE 183RD ST	47	7	15%	5	11%
8TH AVE NE FROM NE 183RD ST TO NE 185TH ST	18	4	22%	3	17%
8TH AVE NE FROM NE 185TH ST TO NE 188TH ST 8TH AVE NE FROM NE 188TH ST TO NE 189TH ST	18 16	4 6	22% 38%	3	17% 31%
8TH AVE NE FROM NE 189TH ST TO NE 189TH ST 8TH AVE NE FROM NE 189TH ST TO NE 190TH ST	16	9	56%	6	38%
9TH AVE NE FROM NE 180TH ST TO NE 185TH ST	68	35	51%	24	35%
BAGLEY PL N FROM N 183RD PL TO STREET END	5	4	80%	1	20%
BAGLEY PL N FROM N 187TH ST TO N 186TH ST	2	1	50%	0	0%
BAGLEY PL N FROM STREET END TO BAGLEY AVE N	9	3	33%	3	33%
BAGLEY AVE N FROM BAGLEY PL N TO STREET END BURKE AVE N FROM STREET END TO N 183RD ST	10	4	40%	3	30% 29%
BURKE AVE N FROM N 185TH ST TO N 189TH ST	35	9	26%	4	11%
BURKE AVE N FROM N 189TH ST TO N 190TH ST	11	2	18%	1	9%
CORLISS AVE N FROM N 180TH ST TO N 183RD PL	48	10	21%	9	19%
CORLISS AVE N FROM N 183RD PL TO N 184TH ST	11	6	55%	5	45%
CORLISS AVE N FROM N 184TH ST TO N 185TH ST CORLISS AVE N FROM N 186TH ST TO N 188TH ST	10 25	2	20% 36%	0 12	0% 48%
CORLISS AVE N FROM N 188TH ST TO N 188TH ST	13	1	8%	0	0%
CORLISS AVE N FROM N 189TH ST TO N 190TH ST	8	0	0%	0	0%
CORLISS AVE N FROM N 190TH ST TO N 192ND ST	27	5	19%	4	15%
CORLISS AVE N FROM N 192ND ST TO N 193RD ST	20	5	25%	2	10%
DENSMORE AVE N FROM N 185TH ST TO N 188TH ST DENSMORE AVE N FROM N 188TH ST TO STREET END	31 10	10 5	32% 50%	6 4	19% 40%
MIDVALE AVE N FROM N 185TH ST TO STREET END	NP	NP S	#VALUE!	4 NP	40% #VALUE!
MIDVALE AVE N FROM N 185TH CT TO N 188TH ST	16	8	50%	6	38%
MIDVALE AVE N FROM N 188TH ST TO STREET END	14	9	64%	15	107%
N 178TH ST FROM MERIDIAN AVE N TO CORLISS AVE N	24	4	17%	4	17%
N 178TH ST FROM CORLISS AVE N TO SUNNYSIDE CT N	5	2	40%	1	20%
N 178TH ST FROM SUNNYSIDE CT N TO 1ST AVE NE N 179TH ST FROM MERIDIAN AVE N TO 1ST AVE NE	8 54	3	38%	3	38% 11%
N 179TH ST FROM MERIDIAN AVE N TO 1ST AVE NE N 180TH ST FROM STONE AVE N TO ASHWORTH AVE N	16	0	0%	2	13%
N 180TH ST FROM ASHWORTH AVE N TO WALLINGFORD AV		3	11%	1	4%
N 180TH ST FROM WALLINGFORD AV N TO BURKE AVE N	8	2	25%	0	0%
N 180TH ST FROM BURKE AVE N TO WAYNE AVE N	12	0	0%	0	0%
N 180TH ST FROM WAYNE AVE N TO MERIDIAN AVE N	7	0	0%	0	0%
N 180TH ST FROM STREET END TO CORLISS AVE N N 180TH ST FROM CORLISS AVE N TO SUNNYSIDE AVE N	7 14	2 4	29% 29%	2 4	29% 29%
N 180TH ST FROM CORLISS AVE N TO SUNNYSIDE AVE N N 180TH ST FROM SUNNYSIDE AVE N TO 1ST AVE NE	14	4	29% 6%	4	0%
N 183RD ST FROM MIDVALE AVE N TO STONE AVE N	21	15	71%	12	57%
of the second seco	0001-0002				22%
N 183RD ST FROM STONE AVE N TO ASHWORTH AVE N	18	5	28%	4	2270
N 183RD ST FROM STONE AVE N TO ASHWORTH AVE N N 183RD ST FROM ASHWORTH AVE N TO WALLINGFORD AV N 183RD ST FROM WALLINGFORD AV N TO BURKE AVE N		9	28% 33% 20%	4 9 2	33%

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STREET SEGMENT NAME - LOCAL STREETS		4AM-6AM COUNTS	4AM-6AM DEMAND		10AM-NOON DEMAND
N 183RD ST FROM BURKE AVE N TO MERIDIAN AVE N	15	10	67%	8	53%
N 183RD PL FROM BAGLEY PL N TO CORLISS AVE N	11	5	45%	2	18%
N 186TH ST FROM BAGLEY PL N TO CORLISS AVE N N 187TH ST FROM MERIDIAN AVE N TO BAGLEY PL N	11 10	5	45% 10%	4	36% 20%
N 187TH ST FROM BAGLEY PL N TO STREET END	10	3	30%	1	10%
N 188TH ST FROM MIDVALE AVE N TO STORE AVE N	6	3	50%	2	33%
N 188TH ST FROM STONE AVE N TO ASHWORTH AVE N	13	2	15%	0	0%
N 188TH ST FROM DENSMORE AVE N TO WALLINGFORD AV	12	2	17%	2	17%
N 188TH ST FROM STREET END TO CORLISS AVE N	5	5	100%	4	80%
N 188TH ST FROM CORLISS AVE N TO 1ST AVE NE	28	3	11%	3	11%
N 189TH ST FROM WALLINGFORD AV N TO BURKE AVE N	22	1	5%	2	9%
N 190TH ST FROM ASHWORTH AVE N TO WALLINGFORD AV		5	29%	3	18%
N 190TH ST FROM WALLINGFORD AV N TO BURKE AVE N N 190TH ST FROM BURKE AVE N TO MERIDIAN AVE N	19 12	6 2	32% 17%	6 0	32% 0%
N 190TH ST FROM BORKE AVE N TO MERIDIAN AVE N	6	2	33%	3	50%
N 190TH ST FROM BAGLEY AVE N TO CORLISS AVE N	14	0	0%	0	0%
N 190TH ST FROM CORLISS AVE N TO STREET END	5	0	0%	1	20%
N 190TH ST FROM SUNNYSIDE AVE N TO 1ST AVE NE	11	3	27%	3	27%
N 191ST ST FROM STREET END TO STONE AVE N	2	2	100%	0	0%
N 192ND ST FROM STONE AVE N TO ASHWORTH AVE N	23	9	39%	3	13%
N 192ND ST FROM CORLISS AVE N TO 1ST AVE NE	28	3	11%	3	11%
N 193RD ST FROM CORLISS AVE N TO 1ST AVE NE	26	6	23%	7	27%
NE 178TH ST FROM STREET END TO 2ND PL NE	NP	NP	#VALUE!	NP	#VALUE!
NE 178TH ST FROM 2ND PL NE TO 3RD AVE NE NE 178TH ST FROM 3RD AVE NE TO 5TH AVE NE	2	0	0% 50%	1 4	50% 40%
NE 178TH ST FROM 3RD AVE NE TO STH AVE NE NE 180TH ST FROM 1ST AVE NE TO 2ND AVE NE	10	2	17%	4	40%
NE 180TH ST FROM 2ND AVE NE TO 3RD AVE NE	12	5	38%	5	38%
NE 180TH ST FROM STREET END TO 5TH AVE NE	13	5	28%	2	11%
NE 180TH ST FROM 5TH AVE NE TO 7TH AVE NE	18	8	44%	3	17%
NE 180TH ST FROM 7TH AVE NE TO 8TH AVE NE	11	0	0%	0	0%
NE 180TH ST FROM 8TH AVE NE TO 9TH AVE NE	11	3	27%	3	27%
NE 180TH ST FROM 9TH AVE NE TO 10TH AVE NE	16	2	13%	3	19%
NE 181ST PL FROM 12TH AVE NE TO STREET END	5	4	80%	3	60%
NE 182ND ST FROM 10TH AVE NE TO 11TH AVE NE	12	10	83%	7	58%
NE 183RD ST FROM 7TH AVE NE TO 8TH AVE NE NE 183RD ST FROM 12TH AVE NE TO STREET END	6 12	0 5	0% 42%	0 4	0% 33%
NE 185RD ST FROM 12TH AVE NE TO STREET END	12	7	58%	6	50%
NE 184TH PL FROM STREET END TO 15TH PL NE	11	7	64%	1	9%
NE 185TH ST FROM 10TH AVE NE TO 11TH AVE NE	6	3	50%	2	33%
NE 185TH ST FROM 11TH AVE NE TO 12TH AVE NE	10	6	60%	1	10%
NE 185TH ST FROM 12TH AVE NE TO 14TH AVE NE	17	5	29%	2	12%
NE 187TH ST FROM NE 188TH ST TO 12TH AVE NE	23	9	39%	6	26%
NE 187TH ST FROM 12TH AVE NE TO 14TH AVE NE	11	6	55%	5	45%
NE 188TH ST FROM 8TH AVE NE TO 10TH AVE NE	41	19	46%	13	32%
NE 188TH ST FROM 10TH AVE NE TO NE 187TH ST NE 188TH ST FROM NE 187TH ST TO 12TH AVE NE	2	0 5	0% 45%	0	0% 9%
NE 188TH ST FROM 12TH AVE NE TO 15TH AVE NE	11	12	67%	4	22%
NE 189TH ST FROM 5TH AVE NE TO STREET END	3	5	167%	4	133%
NE 189TH ST FROM STREET END TO 8TH AVE NE	8	0	0%	0	0%
NE 189TH ST FROM 8TH AVE NE TO 10TH AVE NE	33	11	33%	5	15%
NE 189TH CT FROM STREET END TO 5TH AVE NE	6	3	50%	2	33%
NE 190TH ST FROM 8TH AVE NE TO 10TH AVE NE	45	12	27%	36	80%
NE 190TH ST FROM 10TH AVE NE TO 11TH AVE NE	26	1	4%	0	0%
NE 190TH PL FROM STREET END TO 5TH AVE NE	5	2	40%	1	20%
NE 191ST ST FROM 3RD AVE NE TO STREET END	5	3	60%	1	20%
NE 192ND ST FROM 3RD AVE NE TO 5TH AVE NE NE 193RD ST FROM 1ST AVE NE TO 3RD AVE NE	28 34	3	11% 24%	2	7% 15%
NE 193RD ST FROM 1ST AVE NE TO 3RD AVE NE NE 193RD ST FROM 3RD AVE NE TO 5TH AVE NE	34	8	24%	5	15%
NE 193RD ST FROM SRD AVE NE TO STITAVE NE	22	8	36%	7	32%
NE 195TH ST FROM 5TH AVE NE TO 7TH AVE NE	8	0	0%	1	13%
NE 195TH ST FROM 7TH AVE NE TO STREET END	4	7	175%	12	300%
NE 195TH ST FROM STREET END TO 10TH AVE NE	8	0	0%	5	63%
NE SERPENTINE PL FROM NE 175TH ST TO 5TH AVE NE	15	9	60%	4	27%
NE SERPENTINE PL FROM 5TH AVE NE TO 7TH AVE NE	12	4	33%	0	0%
NE SERPENTINE PL FROM 7TH AVE NE TO 8TH AVE NE	9	0	0%	3	33%
NE SERPENTINE PL FROM 8TH AVE NE TO 8TH LN NE	11	2	18%	0	0%
NE SERPENTINE PL FROM 8TH LN NE TO 9TH CT NE NE SERPENTINE PL FROM 9TH CT NE TO 10TH AVE NE	5	0	0%	0	0% 0%
NE SERPENTINE PL FROM 9TH CT NE TO 10TH AVE NE NE SERPENTINE PL FROM 10TH AVE NE TO 11TH AVE NE	6 14	7	50%	5	36%
NE SERPENTINE PL FROM 10TH AVE NE TO 11TH AVE NE	14 6	10	167%	1	17%
STONE AVE N FROM N 180TH ST TO N 182ND PL	17	7	41%	2	12%
STONE AVE N FROM N 180111 ST TO N 182ND FL	15	3	20%	1	7%
STONE AVE N FROM N 183RD ST TO N 184TH CT	16	4	25%	4	25%
STONE AVE N FROM N 184TH CT TO N 185TH ST	6	4	67%	1	17%
STONE AVE N FROM N 185TH ST TO N 188TH ST	29	10	34%	5	17%
STONE AVE N FROM N 188TH ST TO N 191ST ST	24	1	4%	4	17%
STONE AVE N FROM N 1915T ST TO N 192ND ST	11 32	13	118%	8	73%
SUNNYSIDE AVE N FROM N 180TH ST TO STREET END	10000000	16	50%	7	22%

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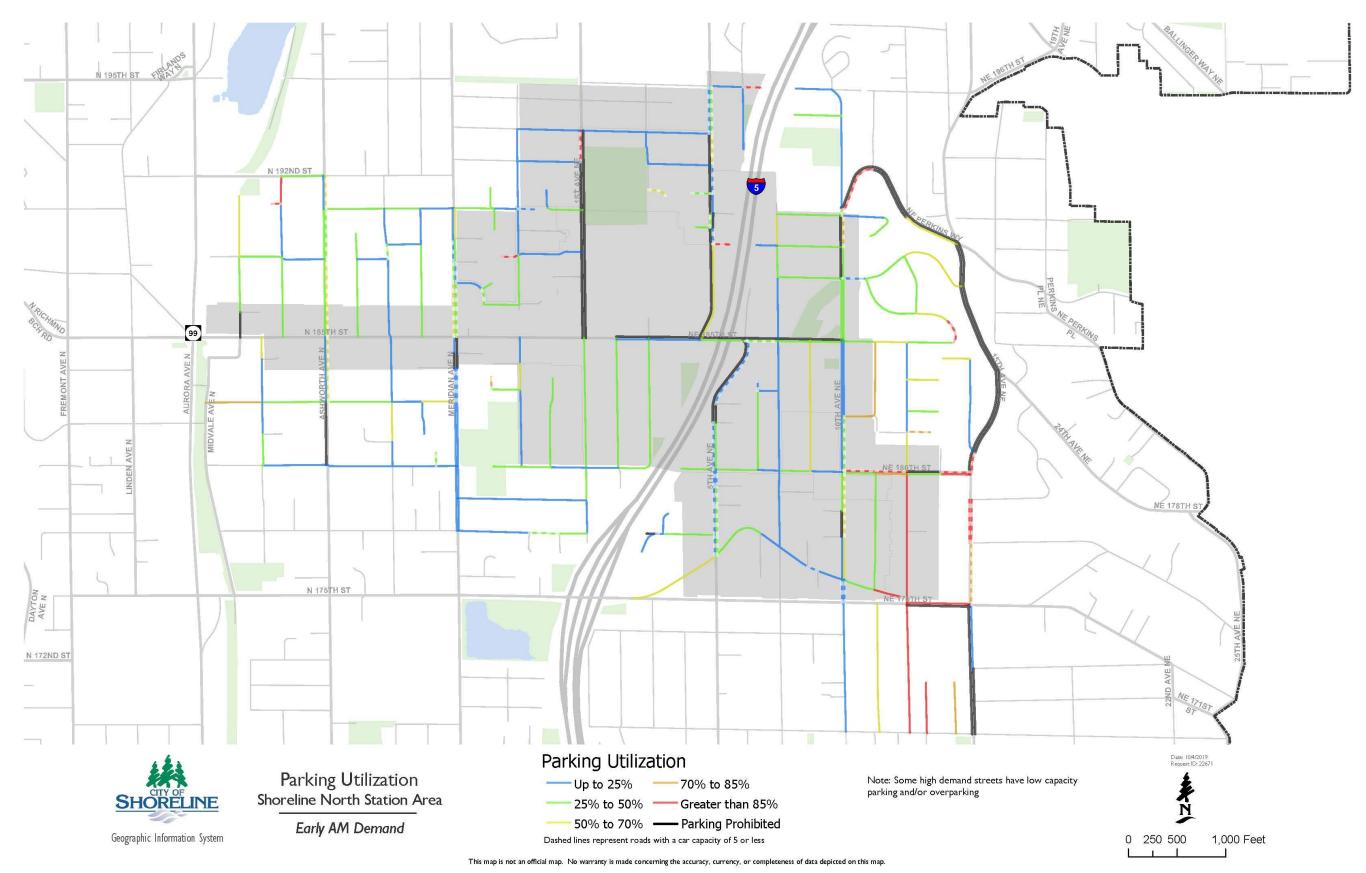
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STREET SEGMENT NAME - LOCAL STREETS	CAPACITY	4AM-6AM COUNTS	4AM-6AM DEMAND	10AM-NOON COUNTS	10AM-NOON DEMAND
SUNNYSIDE AVE N FROM N 190TH ST TO STREET END	7	0	0%	0	0%
WALLINGFORD AV N FROM N 180TH ST TO N 181ST ST	8	2	25%	2	25%
WALLINGFORD AV N FROM N 181ST ST TO N 183RD ST	18	11	61%	5	28%
WALLINGFORD AV N FROM N 183RD ST TO N 185TH ST	19	3	16%	2	11%
WALLINGFORD AV N FROM N 185TH ST TO N 188TH ST	37	7	19%	3	8%
WALLINGFORD AV N FROM N 188TH ST TO N 189TH ST	4	2	50%	2	50%
WALLINGFORD AV N FROM N 189TH ST TO N 190TH ST	17	4	24%	4	24%
WAYNE AVE N FROM N 180TH ST TO STREET END	5	2	40%	1	20%

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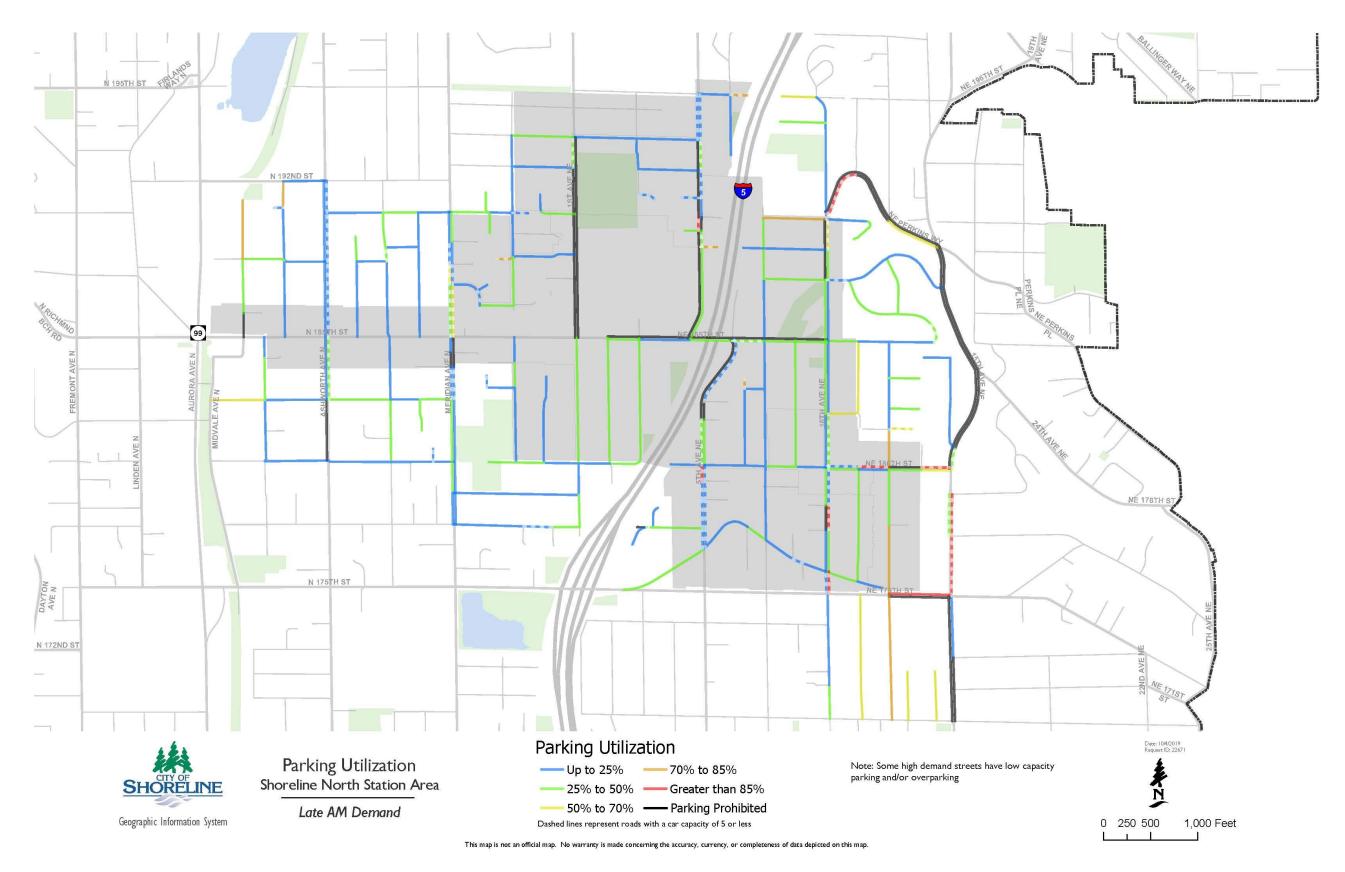
Appendix Q – 185th Study Area Parking Demand Maps



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Appendix Q – 185th Study Area Parking Demand Maps



Appendix R - Supporting data for parking demand projection chart

185th Subarea	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Households ¹	3507	3632	3756	3881	4005	4130	4255	4379	4504	4628	4753	4878	5002	5127	5251	5376	5501
Estimated Total Parking Demand - Conservative Car Ownership 2	7014	7263	7512	7762	8011	8260	8509	8758	9008	9257	9506	9755	10004	10254	10503	10752	11001
Estimated Total Parking Demand - Reduced Car Ownership 3	7014	7256	7497	7739	7981	8223	8464	8706	8948	9190	9431	9606	9780	9955	10129	10303	10478
Estimated On Site Parking Available ⁴	5917	6034	6151	6267	6384	6471	6559	6646	6733	6820	6908	6995	7082	7169	7256	7344	7431
Estimated On Street Parking Demand - Conservative Car Owernship $^{\mathrm{5}}$	1097	1229	1362	1494	1627	1789	1951	2112	2274	2436	2598	2760	2922	3084	3246	3408	3570
Estimated On Street Parking Demand - Reduced Car Ownership 6	1097	1222	1347	1472	1597	1751	1906	2060	2215	2369	2524	2611	2698	2785	2873	2960	3047
Estimated On Street Parking Utilization - Conservative Car Ownership ⁷	34%	38%	42%	46%	50%	55%	60%	65%	70%	76%	81%	86%	91%	96%	101%	106%	111%
Estimated On Street Parking Utilization - Reduced Car Ownership 8	34%	38%	42%	46%	49%	54%	59%	64%	69%	73%	78%	81%	84%	86%	89%	92%	94%
145th Subarea	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Households ¹	3652	3779	3906	4032	4159	4286	4413	4540	4666	4793	4920	5047	5174	5300	5427	5554	5681
Estimated Total Parking Demand - Conservative Car Ownership 2	7304	7558	7811	8065	8318	8572	8826	9079	9333	9586	9840	10094	10347	10601	10854	11108	11362
Estimated Total Parking Demand - Reduced Car Ownership 3	7304	7550	7796	8042	8288	8534	8780	9026	9272	9518	9764	9941	10119	10296	10474	10652	10829
Estimated On Site Parking Available ⁴	6118	6237	6356	6475	6594	6682	6771	6860	6949	7037	7126	7215	7304	7392	7481	7570	7659
Estimated On Street Parking Demand - Conservative Car Owernship 5	1186	1321	1455	1590	1725	1890	2055	2219	2384	2549	2714	2879	3044	3208	3373	3538	3703
Estimated On Street Parking Demand - Reduced Car Ownership 6	1186	1313	1440	1567	1694	1852	2009	2166	2323	2481	2638	2727	2815	2904	2993	3082	3170
Estimated On Street Parking Utilization - Conservative Car Ownership 7	35%	38%	42%	46%	50%	55%	60%	65%	69%	74%	79%	84%	89%	93%	98%	103%	108%
Estimated On Street Parking Utilization - Reduced Car Ownership 8	35%	38%	42%	46%	49%	54%	59%	63%	68%	72%	77%	79%	82%	85%	87%	90%	92%

¹See "Study Area Household Growth Assumptions" table below

²Based on continued 2 cars/household

³Based on 2 cars/household for existing residents + 1.4 car/household for future residents by 2029

⁴Based on existing conditions and accounting for 25% 2 bedroom, 75% 1 bedroom for an average of .9375 stalls/unit until 2023. In 2024, rate is reduced by 25%

⁵Based on existing conditions, accounting for 2 cars/household, and reduced rate of on site parking stalls/dwelling unit in the future

⁶Based on existing conditions, accounting for 1.4 cars/household by 2029, and reduced rate of on site parking stalls/dwelling unit in the future

⁷Based on estimated demand - conservative car ownership divided by current on street parking capacity shown in "Study Area On-Street Parking Capacity Assumptions" table below

⁸Based on estimated demand - reduced car ownership divided by current on street parking capacity shown in "Study Area On-Street Parking Capacity Assumptions" table below

Study Area Household Growth Assumptions	145 th Subarea	185 th Subarea
2019 Households ¹	3467	3507
2035 Household Threshold ²	3652	5500
Households added per year (assuming linear growth)	126.8	124.6

¹ Based on 2014 household baseline with net new units added from 2014 to present.

² Based on upper threshold for households shown in Table 3.2-13 from 145th/185th Subarea Final Environmental Impact Statements.

Study Area On Street Parking Capacity Assumptions1	Number of on-street parking spaces				
145 th Study Area	3434				
185 th Study Area	3227				

¹ Based on data collected for 2019 study