



## MEMORANDUM

**Date:** August 21, 2014

**To:** Planning Commission and Houghton Community Council

**From:** Jon Regala, Senior Planner  
Jeremy McMahan, Planning Supervisor

**Subject:** Amendments to Multi-Family Parking Requirements – Public Hearing  
File No. CAM13-02032

### I. RECOMMENDATION

- Conduct a joint public hearing to receive public testimony on the proposed amendments summarized below (see also Section V):
  - Change the multi-family parking requirement Citywide (including the Central Business District) to the following unit based approach: 1.2 stalls/studio, 1.3 stalls/1-bedroom, 1.6 stalls/2-bedroom, and 1.8 stalls/3-bedroom unit. In addition, increase the minimum parking requirement by 10% for visitor parking
  - Require that 10% of the total number of required parking spaces be set aside for visitor parking
  - Allow a 15% reduction to the parking requirement if within ½ mile of the Downtown Kirkland Transit Center with an approved parking covenant
  - Clarify the criteria for multi-family parking modifications
- The Houghton Community Council may deliberate separately on the proposed amendments at the September 22, 2014 meeting, and make a recommendation that will be transmitted to the Planning Commission for its consideration.
- Continue Planning Commission deliberation to September 25, 2014 at which time the Planning Commission may receive the Houghton Community Council recommendation on those amendments within its jurisdiction. The Planning Commission should make a recommendation on the proposed amendments that will be transmitted to the City Council for consideration.

### II. BACKGROUND

- A. Overview. The City regulates parking so that a development provides the right amount of parking; a balance between oversupplying or undersupplying parking. For the most part, Kirkland's multi-family parking requirements have not changed for many years. In early 2000, most of the zones in the North Rose Hill (2003) and Totem Lake (2004) business districts were modified so that parking would be reviewed on a case-by-case basis where requirements are based on parking demand studies. In 2011, the City modified the CBD multi-family parking rates to be more

consistent with past parking reduction approvals that were also based on parking demand studies.

As part of the adopted 2013 – 2014 Planning Work Program, the City is considering amendments to the multi-family parking requirements based on actual parking demand data. As a project resource, King County, with its Right Size Parking (RSP) project, funded by the Federal Highway Administration, has completed one of the most comprehensive surveys of multi-family parking utilization available. The data include a survey of approximately 228 sites throughout the County, totaling over 33,000 housing units, and over 50,000 parking stalls. These data and subsequent statistical analysis were used in creating a powerful web-based interactive tool, the RSP Calculator, to allow a user to estimate parking use based on specific site and development characteristics.

The County's Right Size Parking project included resources for cities to implement pilot projects to put the data to practical use. Kirkland was one of four King County cities selected to participate in a pilot project. Kirkland's focus is to study and potentially revise multi-family parking requirements to be consistent with actual parking demand.

Background information on the Right Size Project's methodology, including site selection criteria, data collection procedures (which included obtaining property owner permission), details on the variable analysis, strategies for Kirkland code changes, and the RSP calculator can be found in the following documents and/or [webpages](#):

### ***King County METRO***

<http://metro.kingcounty.gov/up/projects/right-size-parking/> (under the 'Deliverables' tab)

- Model Parking Code and Guide for Municipalities
- Literature Review of Statistical Methods
- Research Methods: Phase I - Site Selection and Field Data Collection
- Research Methods: Phase II Model Development
- Technical Policy Memo
- Technical Research Memo
- Project One-Page Description
- Video Recording of the February 19th Urban Land Institute Lunch: Supply & Demand: A Balanced Approach to Parking
- King County Parking Requirements and Utilization Gap Analysis

### ***King County Right Size Parking Calculator***

<http://www.rightsizeparking.org/>

### ***Kirkland Related Info***

- RSP Kirkland Pilot Project Technical Memo dated November 12, 2013 prepared by VIA Architecture (see Attachment 1)
- RSP Web Calculator Estimates in Kirkland Memo dated June 18, 2014 prepared by Fehr & Peers (see Attachment 2)

## **B. Study Sessions**

**November 21, 2013 Study Session.** On November 21, 2013, staff and the consulting team provided a briefing on this project to the Planning Commission and Houghton Community Council. There was brief discussion on the following key topics:

- Market vs. context-based approach to parking requirements
- Should different areas in Kirkland have different requirements?
- What additional background information and data are needed?

**May 22, 2014 Study Session.** On May 22, 2014, the Planning Commission and Houghton Community Council held a second study session on this project. The study session packet, including the previous November 21, 2013 study session packet, can be viewed [online](#) at:

[http://www.kirklandwa.gov/depart/planning/Planning\\_Commission.htm](http://www.kirklandwa.gov/depart/planning/Planning_Commission.htm)

At the study session, staff presented several context-based parking adjustment approaches:

- Adjustments based on housing unit types
- Reduction for transportation alternatives – frequent transit
- Reduction for off-street parking management – unbundling parking pricing

Don Samdahl with Fehr & Peers summarized how the County's parking model explained approximately 80% of the parking use throughout King County and then presented the analysis of Kirkland-specific parking data.

The Planning Commission and Houghton Community Council discussed concerns with visitor parking, increased parking that accompanies growth, lack of transit availability in Kirkland, the need for cars for numerous activities outside of work, incentives for reduced parking, and parking pricing. They then asked staff to provide additional information regarding visitor parking and explore further parking adjustments based on:

- Housing unit types
- Proximity to frequent transit

The Planning Commission and Houghton Community Council did not support the approach for reducing parking requirements by unbundling parking pricing from the cost of housing. It was felt that the City should not manage parking pricing because of the complexity of such a task given the large amount of multi-family properties that could be involved. Also, enforcement by the City would not be realistic given the resources needed.

**June 26, 2014 Study Session.** On June 26, 2014 the Planning Commission and Houghton Community Council held their third study session on this project. The study session packet can be viewed [online](#) at the Planning Commission webpage mentioned earlier. At the study session, Chris Breiland with Fehr & Peers presented findings and recommendations for changes to the City's multi-family parking requirements (see Attachment 2). The study session discussion focused on the revised parking rates that were based on unit types, potential adjustments to the CBD parking rates, visitor parking supply, and suggestions for reducing parking requirements when development is located near frequent transit.

It was mentioned that several properties, found to have 100% parking utilization during the residential peak parking period, were not included in the King County RSP analysis and model. After following up with Daniel Rowe with King County METRO, it turns out that a total of four properties were removed from the study since there was no way to determine if utilization was a result of supply perfectly matching demand or if parking was being undersupplied or underpriced. The decision on this methodology came from King County METRO's Methods Review Committee (made up of national academics and practitioners) at the beginning of the project.

Two of the projects were urban affordable housing projects with very low parking supply. The other two projects were suburban projects, one smaller project in Woodinville and a larger project in Bellevue. According to King County METRO, removal of these four projects had very little, if any impact on the data analysis considering the remaining sample size (over 220 sites) was still very large.

In general, both the Planning Commission and Community Council agreed with calculating the parking requirement based on a unit's bedroom type. There was, however, concern by several members that the recommended calculation may still undersupply parking for developments that have a greater overall number of 2+ bedroom units within a suburban setting and that such a calculation could be inaccurate given the high variability associated with estimating parking demand. There was also discussion regarding visitor parking, adjusting the CBD multi-family parking requirements, and when to allow a parking reduction for development located near frequent transit. Both groups asked staff to provide the following for the public hearing:

- Look at increasing the parking rate for units with 2+ bedrooms
- Additional information regarding the CBD parking rates and how it relates to the parking utilization data
- Details on visitor parking requirements using the anecdotal information from property managers and Institute of Transportation Engineers (ITE) information.
- Language for allowing parking requirement reductions related to frequent transit.

### **III. PUBLIC COMMENT/INPUT**

**General.** Notice of the public hearing was posted on the City's 'Planning Public Notices' website and distributed via the associated listserv. It was also distributed to the Kirkland Neighborhood E-Bulletin, Kirkland Reporter, Kirkland Alliance of Neighborhoods (KAN), Kirkland Developer's Partnership Forum listserv, Chamber of Commerce, and individuals interested in this project. In addition, a project webpage was created along with an associated email listserv for interested parties.

Throughout the code amendment process, a number of public comment emails were received by the City. They have been included in Attachment 3. In general, the public comment received can be summarized as follows:

- Keep in mind the effect of a reduced parking supply and its potential cumulative negative effect
- Need to consider visitor parking
- Not all destinations are served by transit
- Households that use transit for work still need a car for other activities and therefore parking is still needed

- Mixed-use developments have a high parking demand in the early evening hours
- Additional density will happen to meet growth management goals but need to be careful with parking
- Multi-family developments have different family types and dynamics
- Condominiums need to be included in the study
- How parking pricing is managed should not be regulated by the City
- Need to consider changing demographics and diverse population
- Maintain Kirkland as an attractive place to live
- Mixed-use projects should be included in the study
- The City's 1.7 stall per multi-family unit makes projects economically unfeasible
- On-street and shared parking should be options for providing parking
- Having adequate parking is a good goal
- Need to figure in lack of on-street parking
- Stalls should be adequately sized
- Popular businesses/restaurants can take up majority of parking stalls for mixed-use developments
- Having a surplus of parking sometimes can be good

**Kirkland Alliance of Neighborhood (KAN) Meetings.** On May 14, 2014, staff attended the KAN meeting and provided an update on this code amendment project. Staff responded to comments and questions. Important comments from the KAN members included concerns regarding the accuracy of the data, how the RSP calculator and utilization data would be used in determining code changes, and how reduced transit service would affect a context based approach to reducing parking requirements. Several members drew from past experience as property manager and/or their own observations of neighboring multi-family developments when pointing out that their experience/observations of high multi-family parking demand do not coincide with the reduced parking demand predictions of the RSP calculator and Kirkland parking data gathered to date. Limiting spillover parking onto neighborhood streets was a major concern.

More recently on August 12, 2014, staff provided another update to KAN on this project. KAN members expressed their concerns regarding reducing parking requirements especially in areas where street parking is currently a problem. Downtown Kirkland was cited as an example. Other key comments included conducting a cost/benefit analysis associated with reduced parking requirements, concern on parking data quality (i.e. adequate sample size and properties with 100% utilization not included), and accuracy of the parking formula for the larger unit types (2+ bedrooms). KAN submitted to the City a written request to leave the public comment period open until the Planning Commission and Houghton Community Council's deliberations in September (see Attachment 4). A similar request was also submitted by the Juanita Neighborhoods Association (see Attachment 5).

#### **IV. KIRKLAND DATA**

Because of the general nature of the RSP calculator, additional parking utilization information for multi-family properties in Kirkland was requested for analysis. The ten Kirkland sites for which parking data had already been gathered with the County's larger RSP project provided a baseline for identifying additional multi-family sites within Kirkland for analysis. Staff identified the need to include additional sites that consisted of condominiums, developments that varied in unit counts, are located outside areas previously surveyed, had poor transit, and/or lacked nearby services.

The project team was successful in obtaining owner permission to gather parking utilization data for an additional fifteen multi-family projects in Kirkland that met a combination of these factors. However, actual data collection for only seven sites (includes 3 condominium developments) have been gathered to date due to a variety of factors. To help supplement the Kirkland dataset, staff requested that Fehr & Peers include in its analysis the parking data for several Downtown condominium sites that were collected in 2006 as well as data for two Downtown multi-family sites collected for a recent (March 2014) parking modification request. This increased the total number of Kirkland multi-family sites included in the study to 24. The analysis of all of this data was conducted by Fehr & Peers and can be found in Attachment 2.

In terms of identifying the study sites, staff has updated the Fehr & Peers memo in Attachment 2 to provide the associated development name and address. However, for the original ten King County RSP study sites, only the neighborhoods in which they are located were listed (see Attachment 2, Table 1) since King County agreed not to disclose their specific locations when they received permission to survey properties for the County-wide RSP project.

Fehr & Peers also included data from the Redmond Overlake RSP sites for reference. Redmond is pursuing a similar 'right size parking' project (outside the County's grant program) with the same King County team that is assisting Kirkland. Redmond's project is broader and seeks to understand the parking demand requirements for existing and planned land uses in the Overlake and Downtown with potential application to the SE Redmond and Willows Road areas.

**V. RECOMMENDED CODE CHANGES**

**A. Multi-Family Parking Requirements**

The City's existing multi-family parking requirements do not take into account the bedroom count of units, thus reflecting a general blanket approach to parking. Kirkland's general multi-family zones require 1.7 stalls/unit and up to 0.5 stalls/unit for visitor parking. In the CBD, the current multi-family parking requirement is 1 stall/bedroom with minimum average of 1.3 stalls/unit + 0.1 stalls/bedroom for visitor parking.

The County's RSP draft model code, however, shows that parking stall demand varies depending on the residential bedroom count and type. Fehr & Peers' application of the RSP Calculator in Kirkland estimates that the parking requirement rate per bedroom type could be calculated as follows:

**TABLE 1 - RSP Calculator Rate**

	Unit Type			
	Studio	1-Bedroom	2-Bedroom	3-Bedroom +
<b>Parking Rate</b>	1.0	1.1	1.4	1.5

When the above rates were compared to the Kirkland parking utilization data (see Attachment 2, Tables 1-3 'Observed Utilization' row) Fehr & Peers found that the RSP Calculator predicted parking utilization fairly accurately to within +/- 15% of the observed parking demand. To account for this margin of error, Fehr & Peers provided a conservative approach by increasing the base parking rate by 15%. The adjusted base parking rate was then applied for each unit type and rounded to the nearest tenth resulting in the rates in Table 2 below.

**TABLE 2 - Revised Rate based on Kirkland Parking Utilization Data**

	Unit Type			
	Studio	1-Bedroom	2-Bedroom	3-Bedroom +
<b>Proposed Parking Rate</b>	1.2	1.3	1.6	1.8

To understand how this adjusted calculation would apply to existing Kirkland multi-family developments, refer to Tables 1 to 3 of the Fehr & Peers report and the row labeled 'Supply Using Model Code' (see Attachment 2). This row shows that the resulting parking supply would be greater than the observed parking utilization for 23 properties with only one site (Site 18) having a greater utilization rate (+0.29 stalls/unit) than what the proposed parking requirement would require.

In regards to the CBD, parking is calculated on a per bedroom basis. However, as touched upon previously with the unit-type based approach discussion, the RSP model does not support a linear 1 to 1 parking utilization relationship between parking and bedroom count. Applying the current CBD parking requirement to existing Downtown developments shows that current regulations would require a higher average parking requirement of 1.87 stalls/unit (see Table 3) when compared to actual parking demand. The 1.87 stalls/unit average is approximately 45% higher than the average parking utilization rate of 1.29 stalls/unit as shown in Table 4. This suggests that the current CBD parking requirement is weighted more towards larger bedroom unit types and thereby inflates parking supply.

**TABLE 3 – CBD Parking Code Example**

Condo	No. of stalls	Req. guest stalls	Total	Total rate/unit	
Waterview	79.00	7.9	87.00	1.81	
Brezza	124.00	12.4	137.00	1.83	
Portsmith	263.00	26.3	290.00	1.90	
Plaza on State	117.00	11.7	129.00	1.59	
Tiara De Lago	26.00	2.6	29.00	2.23	
				<b>1.87</b>	<b>Total Average</b>

**TABLE 4 – CBD Parking Utilization**

	Stalls per Bedroom	Stalls per Unit
2006 CBD Condo Data – 5 sites (from May 14, 2014 staff memo)*	0.83	1.42
CBD apartment complex (2011 RSP)	0.70	0.90
Kirkland Central Condos (March 2014)*	0.95	1.23
Watermark Apts. (March 2014)*	0.76	1.30
<b>Average (8 sites)</b>	<b>0.81</b>	<b>1.29</b>

\* Includes on-street parking

Tables 1 to 3 of the Fehr & Peers report show that applying the same unit-type based approach to CBD developments provides an adequate parking supply to meet the parking demand for all developments, again with only Site 18 being the exception (see Attachment 2, row titled ‘Supply Using Model Code’).

For comparison with neighboring jurisdictions, the general multi-family parking requirements for several adjoining Cities have been provided in Table 5 below.

**TABLE 5. GENERAL MULTI-FAMILY PARKING REQUIREMENTS FOR OTHER CITIES**

Jurisdiction	General MF Parking Requirement	MF Visitor Parking Requirement	Parking Reductions Allowed?	General City Comments
<b>Bellevue</b>	1.2 stalls/studio & one-bedroom 1.6 stalls/two-bedroom 1.8 stalls/three-bedroom	No requirement	Yes - Based on parking demand study.	- Code in effect since approx. 1984 - Standard appears adequate - Have received complaints from neighborhoods regarding lack of a visitor parking requirement
<b>Redmond</b>	1.2 stalls/studio 1.5 stalls/one-bedroom 1.8 stalls/two-bedroom 1.8 stalls/three-bedroom	No requirement	Yes - Based on parking demand study and/or approved Transportation Demand Program	- Standard appears adequate - Code in effect since approx. 1986
<b>Bothell</b>	2 stalls/dwelling unit	1 stall/ 5 units	Not allowed	- Code in effect since at least 1996

**Staff Recommendation**

As shown by Fehr & Peers, the parking data (countywide and local) and subsequent analysis, support a change to Kirkland’s multi-family parking requirements Citywide including the CBD. Staff therefore recommends changing the multi-family parking requirement to reflect the parking rate based on unit type in Table 2 above. The changes would apply to all zoning districts where multi-family parking is required (see Table 6 below).

**TABLE 6. GENERAL MULTI-FAMILY PARKING REQUIREMENTS - PROPOSED CHANGES**  
 (stalls per unit unless noted)

Zone	Applicable Zoning Code Section	Current MF Parking Req.	Current MF Visitor Parking Req.	Proposed Required Parking Spaces	Proposed Visitor Parking Requirement
Waterfront District I & III	WDI-30.15.020*** WDIII-30.35.020***	2	Up to 0.5	1.2/studio 1.3/1-bedroom 1.6/2-bedrooms 1.8/3+bedrooms	Additional 10% of total
Medium Density Residential*	RM/RMA-20.10.020*** PLA2-60.17.010*** PLA6F-60.82.020 PLA6G-60.87.130 PLA6H-60.92.020 PLA6K-60.107.020	1.7	Up to 0.5		

	PLA7C-60.112.020 PLA9-60.132.030 PLA15B-60.177.020*** PLA17-60.187.020				
	PLA3B-60.22.020***	2			
High Density Residential**	RM/RMA-20.10.020 PLA 5A-60.32.020 PLA5D-60.47.020 PLA5E-60.52.020 PLA6A-60.57.020 PLA6D-60.72.020 PLA6I-60.97.020 PLA6J-60.102.020 PLA7A/B-60.112.020	1.7	Up to 0.5		
<b>Commercial &amp; Office Zones</b>					
<b>BC, BC1, BC2, &amp; BCX</b> Business Commercial	BC, BC1, BC2- 45.10.110*** BCX-47.10.110	1.7	Up to 0.5		
<b>BN &amp; BNA</b> Neighborhood Business	BN/BNA-40.10.100	1.7	Up to 0.5	1.2/studio 1.3/1-bedroom 1.6/2-bedrooms 1.8/3+bedrooms	Additional 10% of total
<b>PR &amp; PLA</b> Professional Residential & Planned Areas	PR/PRA-25.10.020*** PLA5B-60.37.020 PLA5C-60.42.020 PLA6B-60.62.020 PL15A-60.172.020*** PLA17A-60.192.020	1.7	Up to 0.5		
<b>Business Districts</b>					
<b>CBD</b> Downtown Kirkland	CBD1A/1B-50.12.080 CBD2-50.17.090 CBD3-50.27.070 CBD4- 50.32.080 CBD5-50.35.110 CBD6-50.42.080 CBD7-50.47.120 CBD8-50.52.110	1 per bedroom - Must average 1.3 per unit	0.1 per bedroom – minimum 2 per development	1.2/studio 1.3/1-bedroom 1.6/2-bedrooms 1.8/3+bedrooms	Additional 10% of total
	CBD 5A-50.38.010 Special Regulation 7.a	1.7	Up to 0.5		
<b>MSC</b> Market Street Corridor	MSC1/4-51.10.020 MSC2-51.20.060 MSC3-51.30.070	1.7	Up to 0.5		
<b>JBD</b> Juanita Business District	JBD1-52.12.090 JBD2-52.17.090 JBD3-52.22.020 JBD4-52.27.070 JBD5-52.32.070 JBD6-52.42.060	1.7	Up to 0.5	1.2/studio 1.3/1-bedroom 1.6/2-bedrooms 1.8/3+bedrooms	Additional 10% of total
<b>RHBD</b> Rose Hill Business District	RH1A-53.06.080 RH2A/2B/2C-53.24.080 RH3-53.34.120 RH4-53.44.020 RH5A/5B-53.54.090 RH7-53.74.070 RH8-53.84.050	1.7	Up to 0.5		
<b>NRHBD</b> North Rose Hill Business District	N/A	Demand based	Demand based	No Change	No Change
<b>TL - Totem Lake</b>					
TL1A to 8	N/A	Demand based	Demand based	No Change	No Change

TL 5, 9B to 11	TL5-55.39.110 TL9B-55.64.020 TL10B-55.75.010 TL10C-55.81.010 TL10D-55.87.100 TL11-55.99.010	1.7	Up to 0.5	1.2/studio 1.3/1-bedroom 1.6/2-bedrooms 1.8/3+bedrooms	Additional 10% of total
<b>YBD - Yarrow Bay Business District</b>					
YBD 1 (TOD site)	N/A	1.1	0.05	No Change	No Change
YBD 2, 3	YBD2/3-56.20.060***	1.7	Up to 0.5	1.2/studio 1.3/1-bedroom 1.6/2-bedrooms 1.8/3+bedrooms	Additional 10% of total

\* **Medium density** - The following zones: RM 5.0; RMA 5.0; RM 3.6; RMA 3.6; TL 9B; PLA 2, 3B; PLA 6F, H, K; PLA 7C; PLA 9; PLA 15B; and PLA 17.

\*\* **High density** - The following zones: RM 2.4; RMA 2.4; RM 1.8; RMA 1.8; PLA 5A, D, E; PLA 6A, D, I, J; PLA 7A, B; and TL 1B.

\*\*\* **Within HCC Jurisdiction**

At the previous study session, the Planning Commission and Houghton Community Council requested that staff bring back options that look at adjusting the 2 and 3-bedroom parking rates to address concern that the formula for these unit types undersupplies parking.

The City Transportation Engineer reviewed the Kirkland data set. In his analysis, he conservatively attributed one parking stall to each studio and 1-bedroom unit. Then based on the actual utilization data and balance of parking stalls, he calculated the parking rate for the 2- and 3-bedroom units as applicable (see Attachment 6). Based on his analysis, only one site (Site 10) exceeds the 1.8 stall/unit rate. The City Transportation Engineer determined that adjustments to the larger bedroom types are not necessary.

An option for adjusting the higher bedroom-count units could be to increase the 2-bedroom parking requirement to 1.8 stalls/unit, similar to what the City of Redmond requires. No changes would be made to the 3-bedroom rate since the proposed regulation already reflects Redmond's 3-bedroom unit parking requirement of 1.8 stalls/unit. This option is not based on actual utilization data and if chosen, would be the result of a policy decision.

## **B. Visitor Parking**

The RSP parking data (Countywide and Kirkland data) were collected at the peak demand hours for multi-family land uses which falls between 12:00 a.m. and 5:00 a.m. mid-week (Tuesday through Thursday). Parking counts were not conducted during weeks with major holidays. This follows the Institute of Transportation Engineer's (ITE) standards for data collection based on when the highest demand for total parking supply occurs. The general characteristic of residential parking is that all residents are not accounted for until after 10 p.m. Prior to 10 p.m. a percentage of residents are out (e.g. out shopping, working late, eating dinner, visiting friends, etc.). As a result, visitor parking prior to 10 p.m. typically should not exceed the on-site parking supply.

To help understand visitor parking concerns, staff sent out a questionnaire to 35 property managers and/or developers that have either participated in the RSP parking counts or have been contacted regarding this project. Staff received 12 completed questionnaires (see Attachment 7). The respondents confirmed that the

peak demand for visitor parking is in the early evening hours, during the weekends, and during special events that may occur several times a year (in the CBD).

Generally, for the properties that responded, visitor parking is not a problem in terms of adequate supply with existing parking. Properties that did not reserve parking stalls for residents and visitors did not have a visitor parking problem.

Some noted that problems with adequate visitor parking supply usually arise when residents or other non-visitors park in stalls reserved for visitors. One property (Luna Sol) which has 37 parking stalls available for visitors when business are closed (evenings and on weekends), has observed visitors parking on the street instead of using the on-site stalls. Some of the properties that had visitor parking complaints suggested that an additional 7 to 10% parking stall increase would help meet visitor parking demand.

Table 5 provides some background information on what several neighboring jurisdictions require for visitor parking (general multi-family zones) as compared to Kirkland's requirements. The current Kirkland visitor parking requirement (up to 0.5 stalls/unit) results in adding approximately 30% of the required parking stalls as visitor parking when the full amount is required. Redmond and Bellevue do not require additional visitor parking.

For additional background, Shared Parking 2nd Edition Table 2-2 recommends residential visitor parking at a rate of 0.15 stalls per unit (Source: Parking Generation, 3rd ed. (Washington, DC: Institute of Transportation Engineers, 2004). Using this visitor parking rate would result in adding approximately 9% of the required stalls as visitor parking (based on a 1.7 stall/unit base requirement).

### **Staff Recommendation**

Staff recommends the changes below to Kirkland Zoning Code (KZC) Section 105.20 to require an additional 10% of the required parking be set aside for visitor parking. Although this additional requirement is above the peak amount indicated by available data, it provides the benefits of setting aside a pool of visitor parking and a buffer above the staff-recommended parking requirement. The changes also clarify how visitor parking should be calculated where multi-family units are served by driveways large enough to accommodate visitor parking for individual units. Minor changes to KZC Section 105.20 are also proposed to either re-arrange or delete unnecessary text. The proposed visitor parking code language below is the clean version of the proposed changes. The entire redline version can be found in Attachment 8.

***KZC Section 105.20.3 - For medium and high-density residential uses, visitor parking spaces are required as follows:***

- A. A minimum 10% of the total number of required parking spaces, calculated prior to any parking reductions, shall be provided for visitor parking and located in a common area accessible by visitors.***
- B. A detached or attached dwelling unit with an associated garage containing its required number of parking stalls is excluded from the visitor parking calculation required in subsection A above provided that the dwelling unit also has a driveway that meets the parking stall dimensional standards of this chapter and the driveway can be used to provide visitor parking for that dwelling unit.***

C. *Visitor parking stalls shall not be leased or assigned to residents.*

D. *Visitor parking stalls shall not be gated and be accessible by visitors between 6:00 a.m. and 11:00 p.m.*

**C. Parking Reduction for Proximity to Transit (Not within HCC Jurisdiction)**

King County METRO Service Changes. For purposes of the RSP model, frequent transit is defined as service every 20 minutes or more frequently from approximately 7 a.m. to 6 p.m. during weekdays. Of the METRO bus routes in Kirkland, Routes 235, 245, and 255 would be considered as ‘frequent transit’ after the proposed changes go in effect in February 2015 (see Attachment 9). No changes are proposed to Route 245. Currently, only Route 245 and 255 would be considered as ‘frequent transit’.

Routes 235, 245, and 255 have been overlaid onto the *Multi-Family Residential Parking Requirements* map to help visualize the multi-family zones that could potentially be affected by parking reductions (see Attachment 10).

Parking Reduction. The RSP Model Code prepared by King County METRO, included an option to reduce multi-family parking requirements by 25% to 50% based on the proximity of frequent transit. However, the analysis of the Kirkland parking dataset by Fehr & Peers did not find a substantial correlation between the close proximity of frequent transit and a reduced demand for parking for multi-family properties.

Fehr & Peers did however identify a data-based approach that could be reasonably applied in Kirkland. According to Fehr & Peers, research has shown that most people are willing to walk 1,200 to 2,600 feet to use frequent transit (see Attachment 11). This translates into a 5 to 15 minute walk. On a separate but related note, the City is currently reviewing a 10-minute neighborhood approach as part of the Comprehensive Plan update.

Given this, it is reasonable to adjust the RSP calculator by increasing the transit score for properties within ½ mile of frequent transit to reflect the availability of nearby transit. The transit scores for such properties were adjusted as if the properties were adjacent to the transit stop. Table 4 of the Fehr & Peers memo took several of the eligible Kirkland sites and applied this methodology. The results show that parking utilization decreases by 15 and 20 percent for the two sites that were analyzed.

Given the City’s goals to encourage mixed-used development and promote other modes of transportation, the Planning Commission asked staff to pursue this approach, limiting it to the CBD (given that the Downtown Kirkland Transit Center had the most options in terms of destinations served by frequent transit) and to condition such a reduction on the requirement of a parking covenant to include a bus pass subsidy.

**Staff Recommendation**

Staff recommends allowing a parking reduction for these candidate areas with a requirement for a parking covenant to help ensure a reduced parking demand and promote compact development and multi-modal transportation policies. The proposed code language below consists of entirely new text. The entire redline version in context of KZC Section 105.20 can be found in Attachment 8.

***KZC Section 105.20.4 - The number of required parking stalls for a development consisting of for-rent detached, attached, and/or stacked dwelling***

*units may be reduced by 15% if the subject property is located with ½ mile of the Downtown Kirkland Transit Center and the City approves a Parking Covenant for the development. The ½ mile distance shall be determined by taking the shortest walk route from the subject property to the Downtown Kirkland Transit Center as measured along public walkways. The property owner shall submit the Parking Covenant on a form approved by the City for recording with King County. The Parking Covenant shall be binding on all future owners and assignees and include the following requirements:*

- A. The owner to provide two-zone bus passes or equivalent alternative transportation mode subsidy in an amount equal to the number of reduced parking stalls. The owner shall provide to the City a plan for review and approval that specifies the distribution of the bus passes or equivalent subsidy. Preference on transit subsidy distribution shall be to driving age residents that do not have cars.*
- B. Provide one secured and sheltered bicycle parking space for each unit in the development. The parking reductions allowed in KZC Section 105.34 – Covered Bicycle Storage cannot be used if the parking reduction described in this section is being applied.*
- C. Designation of a Transportation Coordinator to manage the Parking Covenant, distribution of the two-zone bus pass or equivalent subsidy, provide commute information to all new residents, and be a point of contact for residents and the City.*
- D. All required parking within a project shall be under common ownership and management.*
- E. Prohibition on the conversion of the property to a condominium unless the number of required parking stalls are provided as calculated prior to the transit related reduction allowed by this section.*
- F. Acknowledgement by the property owner that it shall be a violation of this code to fail to comply with the provisions of the Parking Covenant.*

**D. Changes to Parking Modifications**

KZC Section 105.103.3.c. contains provisions by which an applicant can request to reduce the parking requirement based on a parking demand study.

**Staff Recommendation**

Given the large amount of data and transportation consultant expertise used to arrive at the proposed parking requirements, staff recommends that future parking modifications for multi-family uses be held to the same standard and methodology used with this project. Therefore, the results of a parking demand study should also be 'buffered' by 15% and the same visitor parking standards should apply. The proposed code language below consists of entirely new text and should be incorporated into KZC Section 105.103.3.c. The entire redline version in context of KZC Section 105.103.3.c can be found in Attachment 8.

*For multi-family parking modifications, the parking demand rate result shall be increased by 15% to account for the variation in multi-family parking demand and shall be subject to the visitor parking requirements in KZC Section 105.20.3.*

## **VI. CRITERIA FOR AMENDING THE ZONING CODE**

KZC Section 135.25 establishes the criteria by which changes to the Zoning Code text must be evaluated. These criteria and the relationship of the proposal to them are as follows:

- 1. The proposed amendment is consistent with the applicable provisions of the Comprehensive Plan;*

As mentioned previously, the City regulates parking in order to find the right balance between oversupplying and undersupplying parking. The following Kirkland Comprehensive Plan goals and policies provide support for parking requirements that strike the right balance.

### FRAMEWORK GOALS

- FG-7: Encourage a sustainable community.
- FG-10: Create a transportation system which allows the mobility of people and goods by providing a variety of transportation options.
- FG-14: Plan for a fair share of regional growth, consistent with State and regional goals to minimize low-density sprawl and direct growth to urban areas.
- FG-17: Establish development regulations that are fair and predictable.

### LAND USE GOALS AND POLICIES

- Goal LU-4: Protect and enhance the character, quality, and function of existing residential neighborhoods while accommodating the City's growth targets.
- Policy LU-4.2: Locate the most dense residential areas close to shops and services and transportation hubs.
- Policy LU-5.1: Access
  - Encourage multimodal transportation options, especially during peak traffic periods.
  - Promote an intensity and density of land uses sufficient to support effective transit and pedestrian activity.
  - Promote a street pattern that provides through connections, pedestrian accessibility and vehicular access.
  - Promote non-SOV travel by reducing total parking area where transit service is frequent.
- Policy LU-5.3: Maintain and enhance Kirkland's Central Business District (CBD) as a regional Activity Area, reflecting the following principles in development standards and land use plans:
  - Create a compact area to support a transit center and promote pedestrian activity.

### ECONOMIC DEVELOPMENT

- Policy ED-3.5: Encourage mixed-use development within commercial areas.
- Policy ED-5.1: Build and maintain infrastructure systems for utilities, transportation and telecommunications to optimize service delivery to the business community.

### HOUSING

- Policy H-2.7: Create flexible site and development standards which balance the goals of reduced housing development costs with other community goals...

TRANSPORTATION

- Increasing Travel Options - Kirkland's vision for transportation promotes the movement of people throughout the City and region by expanding opportunities to use transit, ridesharing, and nonmotorized facilities...Alternate modes of travel reduce energy consumption, air pollution, and noise levels. By encouraging high occupancy vehicles and other modes of travel, the City may be able to save the capital expense of road construction and maintenance and enhance the environment. For these reasons, the City should pursue all possible alternatives to the single-occupant vehicle.
  - Policy T-5.6: Promote transportation demand management (TDM) strategies to help achieve mode split goals. TDM may include incentives, programs, or regulations to reduce the number of single- occupant vehicle trips.
2. *The proposed amendments bear a substantial relation to public health, safety, or welfare;*

Based on the King County Countywide Planning Policies growth targets, Kirkland is expected to accommodate approximately 7,300 new multi-family housing units by 2035. Bringing the City's parking requirements more in line with actual parking demand supports and promotes compact development, multimodal transportation options, green building policies, environmental stewardship, economic development, and various land/use growth policies.

However, having too few parking stalls can lead to spillover parking into residential neighborhoods and puts pressure on the public supply of on-street parking. To address this concern, the proposed code amendments are based on actual parking counts from both the King County RSP project and more localized Kirkland data. Analysis of this information was done by experts in the field of parking and transportation.

3. *The proposed amendment is in the best interest of the residents of Kirkland*

The Comprehensive Plan policies listed in Subsection 1 above are the result of Kirkland's planning efforts over the years and reflect Kirkland's vision for growth and development. Because the proposed parking requirement changes are in line with the City's goals and policies, they reflect the best interest of the Kirkland residents. The changes improve upon existing parking regulations by adjusting them to reflect actual parking demand. The proposed code changes also reflect a conservative approach to ensure that concerns with providing adequate onsite parking supply are addressed.

**VII. ENVIRONMENTAL REVIEW (SEPA)**

A Determination of Nonsignificance (DNS) was issued on August 8, 2014. The DNS fulfills the environmental requirements for the proposed changes.

**VIII. ATTACHMENTS**

1. RSP Kirkland Pilot Project Technical Memo dated November 12, 2013 prepared by VIA Architecture
2. RSP Web Calculator Estimates in Kirkland Memo dated June 18, 2014 prepared by Fehr & Peers
3. Public Comment Emails & Letters
4. KAN Letter dated August 20, 2014
5. Juanita Neighborhoods Association Email dated August 20, 2014
6. City Transportation Engineer 2 & 3+ Bedroom Analysis

7. Visitor Parking Questionnaire Summary
8. Proposed Code Amendments
9. METRO 234, 235, & 255 Route Changes
10. Multi-Family Residential Parking Map with METRO Info Overlay
11. Transit Walkability References

**RSP Kirkland Pilot Project Technical Memo  
Right Size Parking Project – King County Metro  
11-12-13**

**CONTENTS**

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5. Strategies
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  - 5.2. Market-based Approach
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  - 5.4. Shared Parking
  - 5.5. Pricing
6. Appendix

**1 EXECUTIVE SUMMARY**

This technical memo describes the opportunities to apply “right size parking” concepts in the City of Kirkland through a pilot project funded by the King County Metro Right Size Parking (RSP) project. It is intended to provide ideas and guidance for the most promising avenues to pursue in the Kirkland RSP Pilot Project. The memo begins with background information on the larger RSP project, and a summary of the proposed Kirkland RSP Pilot. It then provides an overview of the parking environment in Kirkland, followed by a discussion of RSP strategies that would be most appropriate in Kirkland, including market- and context-based approaches to setting minimums, on-street management, shared parking, and pricing.

**2 THE RIGHT SIZE PARKING PROJECT**

Right Size Parking (RSP) is three year grant project funded by the Federal Highway Administration’s Value Pricing Program and managed by King County Metro Transit. The overarching goal of the RSP project is to foster livable communities by optimizing the allocation of parking resources. More specifically, the purpose of the RSP project is to impart data and strategies to help developers, jurisdictions, and neighborhoods accurately project the optimum amount of parking for new multifamily developments.

The amount of parking is optimized—i.e. right sized—when it strikes a balance between supply and demand, and the challenge lies in determining the correct balance with confidence. Today, multifamily buildings often provide too much parking, which can be an impediment to achieving a wide range of community goals. However, providing too little parking can also be a significant risk in terms of real estate marketability and neighborhood impacts.

The RSP project has produced numerous work products, including best practices research, a technical policy memo on RSP barriers and opportunities, multifamily parking utilization surveys, parking code gap analysis, an online multifamily parking demand calculator, model parking code, strategies for pricing, transportation demand management, and parking management, and lastly, pilot projects.<sup>1</sup> The pilot projects are intended to apply the RSP concepts developed in earlier phases, working in partnership with municipalities or private parties.

The RSP project also included a robust stakeholder engagement process. The process included separate segments for the initial project phase and the demonstration project phase, with a series of 15 meetings occurring over an approximately 1.5 year period. Stakeholders were divided into two groups: (1) a jurisdictional committee consisting primarily of planning staff from King County cities, and (2), a development committee consisting primarily of private and non-profit developers and development financiers. A City of Kirkland planning staff member was an active participant on the jurisdictional committee for both phases on the RSP stakeholder process and the City Planning Director served on the development committee.

## **2.2 The RSP Multi-Family Residential Parking Calculator**

The RSP project included an extensive survey of multi-family projects in King County to collect data on parking supply and utilization. The projects surveyed 228 sites throughout the County, totaling over 33,000 housing units and over 50,000 parking stalls. The RSP utilization survey data was used to develop a statistical model that predicts parking demand based on land use and building characteristics. After analyzing over 100 variables, the following seven variables were selected that together can predict over 80% of the observed variation in parking utilization in multifamily projects:

- transit frequency
- percent of affordable units
- number of bedrooms
- population and employment density
- unit size
- unit rent
- parking price

A public, web-based user interface was built to allow easy access to the information provided by the RSP Multifamily Residential Parking Calculator.<sup>2</sup> The web tool has several components for communicating

<sup>1</sup> See <http://metro.kingcounty.gov/up/projects/right-size-parking/> for RSP reports and documents.

<sup>2</sup> The RSP King County Multi-Family Residential Parking Calculator is online here: <http://www.rightsizeparking.org/>

RSP information. The home page gives explanatory information and displays a “heat map” of King County that color codes areas according to predicted parking demand i.e., green indicates lower demand, and red indicates higher. The interface allows users to zoom in and select a specific parcel (or parcels), after which data for a prototypical building on that site is displayed. Project parameters and land use context factors can then be adjusted by the user to represent a planned project, or to simply observe how different factors affect predicted parking demand. The web interface also displays comparative parking “impacts,” including capital costs for parking construction, and vehicle-miles traveled and greenhouse gas emissions for building residents.

The RSP calculator could be used as a tool for municipalities to help determine defensible parking requirements for development projects on a case-by-case basis. The RSP Calculator and the data behind it could also provide valuable input for setting the metrics for “context-based” adjustments to minimums, as was done for several of the RSP model code metrics, as noted in Appendix 6.1.

### **2.3 The RSP Model Code**

One of the main work products of the RSP Project is a model code document that integrates all of the research, stakeholder input, and analysis to provide a resource for planners to implement code that supports RSP and other regional goals. The model code is comprised of two approaches: *market-based*, and *context based*. In the market-based approach minimums are set to zero, and the market determines the amount of parking. The RSP project concluded that a market-based approach most effectively matches parking supply with parking demand and eliminates the possibility of requirements forcing developers to build more parking than is needed. At the same time, it cannot be overstressed that removing minimums does not mean that no parking can be built, nor does it mean that no parking will be built. In almost all cases, developers will build parking anyway, because their projects would not be marketable without it.

It was also recognized that a market-based approach might not be acceptable in many jurisdictions, and the model code includes a context-based approach for which minimums are set based on the unique context and characteristics of a given project. The process has two steps: First, a generalized place type and associated base parking minimum is assigned. Second, a series of adjustments is applied to that base minimum to account for specific building and contextual features, such as the unit type, expected tenant, proximity to transit, use of transportation demand management and so on. The full menu of possible context-based adjustments proposed in the model code is given in Appendix 6.1. Further information on the RSP Model Code can be found in the RSP Model Code Technical Memo, available for download at the King County Metro RSP web site.<sup>3</sup>

<sup>3</sup> <http://metro.kingcounty.gov/up/projects/right-size-parking/>

### **3 THE KIRKLAND RSP PILOT PROJECT**

Kirkland was awarded one of four pilot project grants by RSP to investigate updating the City's parking codes to promote RSP outcomes that align with City goals. RSP multifamily parking utilization survey data indicate that in Kirkland, actual parking demand is less than what parking codes require and that, where modifications are not being requested and approved, parking is being oversupplied in multifamily projects. This oversupply is at cross purposes with many of Kirkland's stated goals, including supporting economic development, creating affordable housing, building a sustainable community, encouraging efficient transportation, and protecting community character.

The City of Kirkland's adopted 2013-2015 Planning Work Program includes code amendments to consider revised parking standards, and the pilot project will assist in that endeavor. The objectives of the pilot project are to review all multifamily parking requirements for the City and establish requirements that reflect market demand, protect adjoining neighborhoods from parking spillover, and are adaptive to changing conditions. The pilot project will also explore opportunities to unbundle parking pricing by reviewing acceptance in the local real estate market as well as acceptance in adjoining neighborhoods. The project scope includes:

- Attendance and presentations at a series of meetings with the Kirkland City Council Planning and Economic Development Subcommittee, the Planning Commission, the Transportation Commission, and the Houghton Community Council
- Parking utilization surveys of multifamily projects
- Development of a Technical Memo that addresses RSP opportunities in Kirkland
- Parking Pricing Research
- Development of draft parking code

Kirkland's RSP pilot project grant includes support from the following consultant team that has been engaged throughout the larger RSP project:

- Rick Williams Consulting: on-street and off-street parking inventories and utilization surveys, strategies for on-street parking management and shared parking
- Fehr & Peers: parking demand data analysis, transportation demand management strategies
- VIA Architecture and Planning: policy and code analysis and development, land use planning
- Kidder Matthews: real estate development economics and market analysis, pricing analysis

## 4 EXISTING PARKING ENVIRONMENT IN KIRKLAND

### 4.1 Minimums

As shown in the map in Appendix 1, Kirkland's multifamily zones can be divided into five categories based on their parking stall minimum requirements:

- Downtown (CBD)
  - 1 per bedroom or studio units (minimum 1.3 per unit average)
  - guest parking: 0.1 bedroom or studio unit with a minimum of two per development
  - in-lieu fee option
- General Residential
  - 1.7 per unit
  - guest parking: up to 0.5 per unit
- Shoreline
  - 2.0 per unit
  - guest parking: up to 0.5 per unit
- Totem Lake: Case by Case basis (KZC 105.25)
- South Kirkland TOD: 1.1 per unit

Other pertinent elements of Kirkland's multifamily parking code include:

- Discretionary parking modifications where a detailed study documents lower demand than the code requirement. When such changes are being considered, City code requires public notice to all property owners within a 300' radius of the development site and allows administrative decisions by the planning official and traffic engineer to be appealed to the hearing examiner. This public notice requirement and appeal process has the potential to cause significant delays in project permitting.
- Parking requirements for affordable housing units may be reduced to one stall per unit if the owner commits by covenant to one car per unit.
- Bicycle parking spaces are required for new development with six or more motor vehicle parking spaces, at a ratio of one bicycle space for each 12 required motor vehicle parking spaces. Covered and secured bicycle storage provided on site can be credited towards parking requirements at a ratio of one less parking stall per six bicycle spaces (maximum 5% reduction in required parking).
- Two or more uses may share a parking area if the number of parking spaces provided is equal to the greatest number of required spaces for uses operating at the same time, with a City-approved agreement between property owners. Final parking stall requirements are based on analysis of peak demand for each use.
- In the CBD (downtown) zones, projects may pay a fee-in-lieu of \$20,000 per stall into a special fund that is used to provide and upgrade municipal off-street parking.
- In CBD zones that allow residential suites, the minimum is reduced to 0.5 per unit for residential suites that agree to manage demand and monitor and limit car ownership.

## 4.2 On-street Parking

Areas with regulated on-street parking are primarily located in downtown, typically with 2 hour limits, but also some 30 minute limits. First Street, 3rd Avenue, 2nd Avenue South, and State Street have 4 hour limits. In downtown, on-street parking has no time limit on Market Street north of Central Way, Central Way between 3rd and 5th Streets, and 3rd Avenue between 1st and 2nd Streets.

Downtown Kirkland also has several off street lots including:

- Lake Street & Central Way Lot (3 hour limit)
- Lakeshore Plaza Lot (3 hour limit)
- Peter Kirk Municipal Garage (4 hour limit)

The Lake Street Lot and Lakeshore Plaza have pay stations that charge \$1.00 per hour from 5 p.m. to 9 p.m. All Day parking (9 a.m.-9 p.m., Mon-Sat) is available in the Park & Main Lot for \$1.00 per hour. There are also several private pay lots in downtown. Downtown employee parking permits are available at no charge for parking at the Peter Kirk Municipal Garage (library garage).

The City has generally been opposed to Residential Parking Zones (RPZs). Kirkland staff has indicated that the City will likely want to avoid any changes to parking codes that would necessitate the implementation of parking management, which is seen as too much of a drain on City resources, and also unpopular with residents.

## 4.3 RSP Surveys

The RSP data represents a robust collection of regional data from multifamily sites throughout King County and a significant statistical analysis of context-based variables that affect parking demand. Parking utilization for each site was observed under carefully controlled, consistent conditions. Parking counts were completed during mid-week days (Tuesday through Thursday) at the peak parking demand hours for residential land uses, which falls between 12:00 a.m. to 5:00 a.m. Parking counts were not completed during weeks with major holidays considering residents could be on vacation.

The RSP parking utilization survey included 10 multifamily projects located in Kirkland, and the results, aggregated by neighborhood, are shown in Table 1. On average, the 10 projects supplied 43 percent more parking than the observed utilization. The amount of oversupply in individual buildings ranged between 14 to 173 percent. These result are consistent with the RSP survey findings county wide, which showed that on average buildings supply 40 percent more parking than the observed utilization.

The average observed parking ratio was 1.20 per unit, ranging between 0.9 and 1.5 for individual buildings. The observed average ratio is significantly lower than the minimums specified for Kirkland's downtown (1.6), general residential zones (1.7) and shoreline zones (2.0). Only the South Kirkland TOD area has a lower minimum than the observed average, but that area has unique conditions.

Totem Lake minimums are determined on a case-by-case basis, so a direct comparison to the observed utilization can't be made. However, a multifamily development just south of Totem Lake was recently

approved for a ratio of 1.1 per unit. There is also a recent affordable multifamily project in Totem Lake that was approved for a parking ratio of 0.79 per unit.

Four of the 10 Kirkland projects surveyed charge residents rent for parking that is unbundled from the rent of the unit (in other words, the tenant pays apartment rent and parking rent separately – if needed). Monthly parking rates in these buildings ranged between \$40 and \$83. Three of the 10 projects had shared parking between residents and other uses, though the number of shared stalls was relatively small, numbering 12, 14, and 33 stalls.

**TABLE 1: Summary of the ten projects in Kirkland surveyed by the RSP project**

N'hood	Projects	Total Resid. Units	Total Resid. Stalls	Supply (stalls / unit)	Utilization (stalls / unit)	Excess Supply (stalls/ unit)	Stalls Shared w/other Uses	Bicycle Parking Stalls	Total Resid. Square Footage	Stud.	1-bds.	2-bds.	3-bds.
Juanita	4	891	1,557	1.75	1.20	0.55	47	0	742,855	24	334	274	48
Totem Lake	2	400	564	1.41	1.18	0.23	12	0	295,342	50	167	149	28
Other*	4	613	978	1.60	1.22	0.38	0	92	190,436	38	251	285	36
<b>TOTALS</b>	<b>10</b>	<b>1,904</b>	<b>3,099</b>	<b>1.63</b>	<b>1.20</b>	<b>0.43</b>	<b>59</b>	<b>92</b>	<b>1,986,314</b>	<b>112</b>	<b>752</b>	<b>708</b>	<b>112</b>

\*These four projects are located in Bridal Trails, Lakeview, Moss Bay, and North Rose Hill, but specifics are undisclosed to protect confidentiality.

#### 4.4 RSP Gap Analysis

The following analysis compares the City of Kirkland’s municipal parking code against the predicted RSP multifamily parking utilization rates. Within multifamily or mixed use zoning areas, the ratio of the minimum parking requirement to the RSP-predicted parking utilization was calculated for each parcel.

Figure 1 and Table 2 summarize the results of the parking supply to RSP demand analysis. On the map, blue shaded parcels (of which there are none in Kirkland) would represent a situation where municipal parking minima are less than predicted utilization, orange parcels (e.g., South Kirkland Park and Ride) have parking minima roughly aligned with utilization, and the tan and brown parcels have minima that exceed RSP expected utilization.

As shown, the City’s minimum parking requirements generally result in a minimum-to-utilization ratio of above 120 percent, which also could be interpreted as 20 percent or greater oversupply. Ratios exceeding 160 percent are present in several areas of the City. Much of the variation shown on the map has to do with the predicted parking utilization rates from the RSP model. For example, the rate of “oversupply” is higher along 100th Ave NE in Juanita because the RSP tool predicts that parking utilization is lower in areas that are immediately adjacent to corridors with transit service (e.g. the 255 Route).

The only area where the code is in rough balance with utilization is in the South Kirkland Park and Ride area, which recently underwent a parking code adjustment with the development of TOD zoning for the site. Also notable is that the Totem Lake area has parking requirements that are determined on a

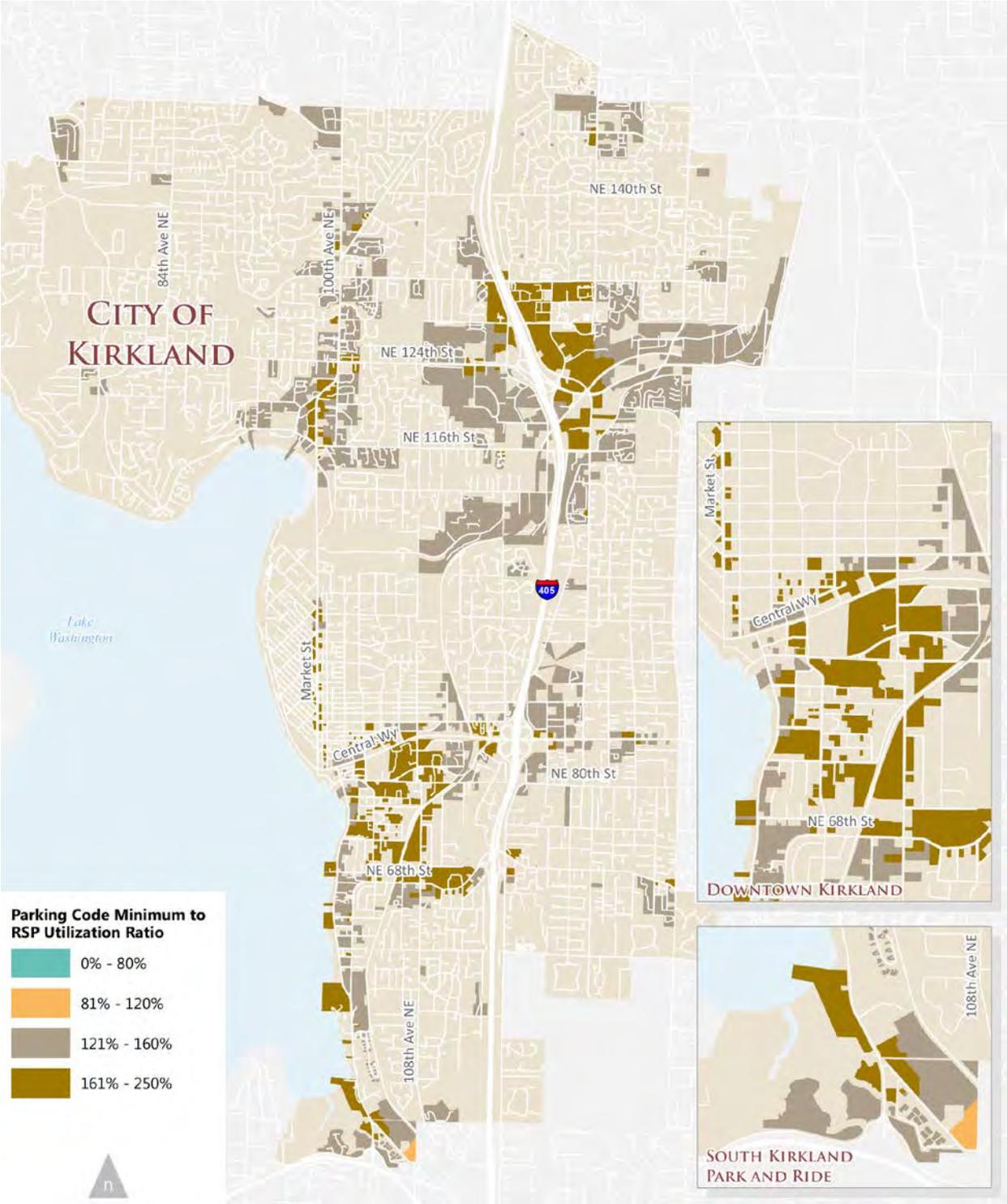
project-by-project basis. The figure shows the gap in parking requirements and utilization that would occur assuming that the City’s typical rate of 1.7 parking stalls per unit was applied. However, based on conversations with City staff, two recent projects have been approved with parking supplies that are roughly equal to the anticipated RSP utilization.

**TABLE 2: RSP Gap Analysis**

Location	Required Minimum (stalls per unit)	Average RSP Predicted Utilization (stalls per unit)	Required Minimum to RSP Predicted Utilization Ratio	Gap Between Requirement and RSP Predicted Utilization (stalls per unit)
General Residential	1.70	1.10	155%	0.60
Downtown (CBD -1, -2, -8 <sup>1</sup> )	1.56	1.04	149%	0.52
Totem Lake	1.70 <sup>2</sup>	1.05	162%	0.65
S. Kirkland TOD	1.15	1.05	110%	0.10

Notes:  
<sup>1</sup> CBD average parking requirements are vary by bedroom and location. An average was calculated based on the typical housing in the area.  
<sup>2</sup> Totem Lake does not have traditional parking minima. They are set project-by-project. For this analysis, the typical City requirement was assumed.

FIGURE 1: RSP Gap Analysis



#### 4.5 The Kirkland Comprehensive Plan

The Kirkland Comprehensive Plan includes numerous goals and policies that provide rationale for updating the regulations described above to promote RSP outcomes. With respect to Land Use, one of the most relevant policies is LU-5.1, which includes the following principles:

- Encourage multimodal transportation options, especially during peak traffic periods.
- Promote an intensity and density of land uses sufficient to support effective transit and pedestrian activity.
- Encourage pedestrian travel to and within the commercial area by providing... placement of off-street surface parking to the back or to the side of buildings to maximize pedestrian access from the sidewalk.
- Promote non-SOV travel by reducing total parking area where transit service is frequent.

More directly, policy LU-3.5 states: “Incorporate features in new development projects which support transit and non-motorized travel as alternatives to the single-occupant vehicle.” Note that more efficient utilization of parking should be considered a “feature” supporting transportation alternatives.

Regarding transportation specifically, Policy T-1.4 contains the following language:

“Kirkland’s vision for transportation promotes the movement of people throughout the City and region by expanding opportunities to use transit, ridesharing, and nonmotorized facilities.... Alternate modes of travel reduce energy consumption, air pollution, and noise levels... the City should pursue all possible alternatives to the single-occupant vehicle.”

More generally, framework goal FG-7—*Encourage a sustainable community*—includes the following language: “We strive to accomplish our goal by reducing our contribution to climate change... Among the varied tools are land use goals and regulations that encourage pedestrian-oriented and compact development in our neighborhoods...”

Additional framework goals that are aligned with RSP include:

- *FG-3 Maintain vibrant and stable residential neighborhoods and mixed-use development, with housing for diverse incomes, ages, and lifestyles.*
- *FG-9 Provide safety and accessibility for those who use alternative modes of transportation within and between neighborhoods, public spaces, and business districts and to regional facilities.*
- *FG-10: Create a transportation system which allows the mobility of people and goods by providing a variety of transportation options.*
- *FG-14: Plan for a fair share of regional growth, consistent with State and regional goals to minimize low-density sprawl and direct growth to urban areas. (Note that one of the benefits of RSP is that it enables higher density development by reducing the need for parking.)*

## 5 STRATEGIES

### 5.1 Market-based Approach

The RSP Model Code’s preferred recommendation for promoting RSP outcomes is a market-based approach, which involves removing minimums and letting the market determine how much parking is built. However, due to concerns about the risk introduced by unregulated parking, in most of the City of Kirkland a market-based approach is likely to be unacceptable to the community in the near term, with the possible exception of the Totem Lake area.

Totem Lake is the only area in the City where the parking requirements are determined on a case-by-case basis. This approach is intended to give developers flexibility. There is interest and momentum within the City to get development happening in Totem Lake. For these reasons, Totem Lake is the best opportunity in Kirkland to explore a market-based approach to parking minimums.

The chief concern to address for a market based approach is what happens if developers underbuild parking, and in particular, determining where spillover parking would have impacts. Much of the Totem Lake area consists of superblocks with strip commercial development and large surface parking lots; there is very little on-street parking. As such, any spillover from underparked residential buildings would most likely impact private surface parking lots, and this could create a burden of policing the lots on those property owners. However, Totem Lake is a designated regional urban center, and most cities do not consider potential parking spillover into private lots to be an “impact” in urban centers. There is typically an expectation that private property owners have the responsibility to manage their parking in urban locations.

On the other hand, if surface lots are underutilized—which many in Totem Lake appear to be—a demand for residential parking could provide a new source of income for the owners of surface parking lots. Further study of parking resources in Totem Lake would be necessary to develop a market-based approach that properly mitigates any potential negative impacts to surrounding properties.

Of the several parking management strategies described in the RSP Model Code, one that may be best suited to a market-based approach in Totem Lake is improving utilization of existing off-street parking lots. Totem Lake has numerous off-street surface parking lots, most of which appear to have significant excess supply, at least during specific times of the day or week. Enabling this parking resource to be utilized would provide a safety valve for any spillover problems caused by underbuilt multifamily parking. Municipalities can play a direct role in connecting parking consumers with parking lot owners. For example, the City of Long Beach, CA, administers an innovative program that enables owners of underutilized private parking lots to lease their parking to local residents.<sup>4</sup>

<sup>4</sup> Information on the City of Long Beach program can be found at <http://www.communityparking.com>

## 5.2 Context-based Approach

Kirkland's existing codes that set parking minimums in the downtown, general residential, and shoreline areas all have the potential to be improved through the incorporation of elements of the "context-based" approach proposed in the RSP Model Code. Each of these areas is discussed separately below.

### Downtown

The current code for downtown was adopted in 2010, but there have not yet been any major multifamily developments to test it. The RSP gap analysis discussed above indicates that there is room to lower the minimum and still accommodate expected parking demand. Refining parking minimums using a context based approach would be a defensible way to lower minimums and get the requirements more in line with actual demand.

The first step of the RSP context-based approach is to set a baseline parking minimum based on the general level of urban characteristics of the place. Because downtown is the most urban area in Kirkland, it would be expected to have a lowest baseline minimum of all Kirkland's multifamily areas (based on RSP predictive variables).

Given that parking requirements are minimums only, and also that urbanizing places such as downtown Kirkland can be expected to exhibit general trend toward lower parking demand over time, it is appropriate to set minimums at or slightly below the RSP calculator's demand predictions. Considering the predicted utilization for the CDB shown in Table 2 above, an appropriate choice for the baseline minimum would be approximately 1 per unit.

There are several possible context based adjustments proposed in the RSP model code that could be applied in downtown Kirkland. (For reference the full menu of options in the RSP model code is provided in Appendix 2.) In particular, one factor unique to the downtown code is the way the minimum is defined to scale up linearly with the number bedrooms in a unit. Actual demand is not linearly proportional to bedrooms as the bedroom count gets higher, so as bedroom count goes up the required minimum in downtown becomes incorrectly inflated. As noted in the Gap Analysis section above, based on average bedroom counts in typical multifamily housing in Kirkland's downtown, the required minimum would be 1.6 per unit. That is barely a reduction from the general residential requirement of 1.7 per unit.

The effect of the number of bedrooms on demand could be more accurately accounted for through the set of adjustments recommended in the RSP model code, as shown in Table 3 below. The "X" in the table indicates that the baseline minimum would be multiplied by this factor to determine the adjusted minimum. The specific factors in Table 3 were based on statistical analysis of data from the 208 multifamily projects that were used to develop the RSP parking utilization calculator (bedroom count was one of the seven independent variables used in the predictive statistical model).

**Table 3: RSP Model Code proposed multipliers to adjust minimums according to bedroom count**

studio	1-bedroom	2-bedroom	3-bedroom+
0.85X	1X	1.6X	1.8X

Note that Kirkland’s current requirement for 0.1 guest stalls per bedroom could also be modified according to the metrics in Table 3 above.

Other context-based adjustments (see Appendix 2 for reference) that would be most relevant to downtown Kirkland, and that are not sufficiently addressed in existing code, include:

- Low-income units: The RSP survey data showed an average demand reduction of 35 percent for these units.
- Senior units: The RSP survey data showed an average demand reduction of 50 percent for these units.
- Assisted living units: Existing Kirkland allows a reduction to 1 per unit, but this could be further reduced based on the RSP multifamily survey data (see Appendix 2 for the RSP model code’s proposed reduction).
- Transit Access: The RSP Model Code proposes a reduction of 25 to 50 percent, depending on proximity and level of service.
- Transportation Management Plan (TMP): Existing Kirkland code specific to residential suites includes TMPs as one of several conditions for reduced parking requirements. The RSP Model Code proposes a reduction of up to 20 percent.
- Transit supportive building and site design: The RSP Model Code proposes a reduction of up to 10 percent.
- Parking price unbundled from the unit price: The RSP survey data showed an average demand reduction of 20 percent when parking was unbundled.
- Remote parking: The RSP Model Code proposes a one-for-one exchange of on-site for off-site parking.
- Car share stalls: The RSP Model Code proposes a reduction of four stalls for every car share stall.

General Residential

The RSP gap analysis discussed above indicates that there is room to lower the minimum in the general residential areas and still accommodate expected parking demand. As with downtown, a context-based approach could provide a defensible methodology for reducing minimums. Unlike downtown, however, the general residential zones are spread throughout the City and have large variations in basic land use characteristics. The RSP context-based approach involves setting a baseline minimum, but due to these variations, a uniform baseline may not be appropriate for all of the general residential areas. For example, Juanita Village is one area that could be expected differ enough from the more typical general residential areas such that it could be assigned a unique baseline minimum.

Determining the best way to handle baseline minimums in the general residential areas will require further analysis of how land use varies among the different general residential areas. Note that large-area parking demand maps generated by the online RSP calculator tool could be used to help characterize land use variation. In any case, given the projections of the RSP calculator (see Table 2), an appropriate baseline would be about 1.1 per unit.

Several of the context-based adjustments described above for downtown would also be appropriate for the general residential areas, including number of bedrooms, low-income, senior, and assisted living units, and transit access. Unbundling, TMPs, and car share are likely to be less appropriate in general residential areas with a more suburban character and less transit. In particular, RSP research has shown that parking price has dwindling influence on parking demand in places where there are limited alternatives to travel by car.

#### Shoreline Areas

The shoreline zones have the highest minimums in the City at 2 per unit. Not only is this relatively high requirement inconsistent with Kirkland's general residential zones (1.7 per unit), it is also in conflict with shoreline policies that indicate parking is not a desired use in these areas. These circumstances support the case for reductions in required minimums in the shoreline zones. If nothing else, minimums should at least be made consistent with the general residential requirement of 1.7 per unit.

As with the downtown and general residential areas, a context-based approach could provide a defensible methodology for reducing minimums in the shoreline areas. The areas cover a relatively limited extent, and are similar in general land use characteristics—most are located directly on the shore of Lake Washington on the west side of Lake Washington Blvd between downtown and Yarrow Bay. Thus, it can be expected that a single baseline minimum would apply well to all the areas; although, consideration should be given to removing the shoreline parking designation for the parcels near downtown and to apply the downtown rates.

Regarding context-based adjustments, those recommended above for the general residential areas would be most appropriate for the shoreline areas. In fact, one potential option would be to standardize the context-based approach for both the shoreline and general residential areas.

#### Totem Lake

Totem Lake should be considered for a market-based approach to parking minimums, as discussed in the next section. If the existing case-by-case approach is retained, the City could explore the potential for allowing the RSP Parking Calculator to be used to review the parking minimums proposed by developers.

#### South Kirkland TOD

The requirements in this zone—1.1 per unit—were recently updated to be consistent with the planned TOD, currently under construction. As such, it is not likely to need any further changes in the near term.

### **5.3 On-street Management**

In general, as parking resources become more highly utilized, the need for on-street management rises. However, management requires City resources, and can be unpopular with local businesses and residents. A key point to make clear is that if parking minimums are reduced according to the concepts developed by the RSP project, the impact on street parking should be minimal. When parking requirements are based on RSP principles, it means that parking resources are used to their maximum efficiency, i.e., demand is absorbed by empty stalls in residential projects and no additional pressure is put on stalls on the street. Thus, in most of Kirkland on-street management should not be seen as an issue that would be exacerbated by reduced minimums that have been properly calibrated.

Currently, on-street parking management in Kirkland is almost entirely limited to the downtown area, and it may be appropriate to reassess these measures, depending on the specifics of what is proposed regarding adjustments to multifamily parking minimums. Since most of downtown on-street parking has a two hour limit, it would not be expected that residential parking spillover is creating much if any conflict with commercial parking. However, it is possible that spillover parking is impacting neighborhoods adjacent to downtown where on street parking does not have time limits. If downtown minimums are proposed to be reduced, the potential for this type of spillover should further explored, ideally through on-the-ground observation.

One parking management strategy discussed in the RSP Model Code that the City could consider is utilization monitoring. Public perception of on-street parking availability is not always aligned with actual utilization. In some cases, utilization surveys may help assuage concerns if the surveys document that there actually is significant excess on-street parking supply within a given neighborhood. Another potential option is for cities to commit to routine utilization monitoring, and implement contingency measures if utilization rates hit unacceptable levels. This method would be most suitable to mitigate potential impacts of a market-based approach for which minimums have been removed. (Note: To the best of our knowledge there is no precedent for a City making such a commitment to monitor and mitigate, but it is suggested here as an avenue for exploration if significant parking reductions are pursued.)

### **5.4 Shared Parking**

Kirkland allows shared parking throughout the City “if the number of parking spaces provided is equal to the greatest number of required spaces for uses operating at the same time...” But there are further steps the City could consider to better promote shared parking as an RSP strategy.

The potential for shared parking agreements between adjacent properties greatly expands the opportunities for shared parking, but it also necessitates the establishment of formal legal agreements between different property owners. The risk and hassle associated with such agreements is a major barrier to the implementation of shared parking. To overcome this barrier and promote adoption of shared parking schemes, the City could consider developing a model shared parking agreement designed to make the process easier to navigate and to reduce legal risk.

Because they typically have a single owner, mixed-use projects present an opportunity for shared parking without the need for a legal agreement between different owners. Within individual mixed-use projects that contain uses that have complementary parking utilization patterns, sharing of the onsite parking can allow for a reduced number of parking stalls in the project. Shared parking arrangements in mixed-use projects also open the possibility for accommodating guest parking in a pool of shared parking, such that the extra stall requirement for guest parking could be eliminated.

A shared arrangement within a single project usually requires that the parking facility be designed to allow all tenants and visitors access to all areas of the parking lot. In typical mixed-used buildings with structured parking, the residential portion of the parking is designed to be securely isolated from parking available to non-residents. One possible solution is a moveable gate or barrier that could accommodate variations in utilization between the residential and commercial portions of the project. Another design strategy is to make multifamily parking garages accessible to all tenants and visitors without compromising resident security, for example with parking elevators open to public plazas instead of interior lobbies.

Because downtown has relatively high density and a diverse mix of uses, it can be expected to have the best opportunities for shared parking in Kirkland. In the general residential zones, the biggest opportunity for shared parking is in the Juanita Village area, where there is an appropriate mix of uses. In most other general residential areas, it is much less likely that there will be complimentary uses near each other to support shared parking. The preponderance of private surface parking lots presents a unique opportunity for shared parking in the Totem Lake area. No matter what the location, the key role that the City can play is to facilitate connections between multifamily developers and owners of adjacent available parking that could support shared parking arrangements.

## **5.5 Pricing**

Pricing parking in multifamily developments is most effective when off-site parking options such as on-street stalls or public parking lots are also priced, which is not the case in most of Kirkland. In addition, Kirkland's dominant land use patterns and limited transit are such that pricing parking in multifamily buildings would be expected to have a modest effect on parking utilization and car ownership. In Kirkland, some households may be willing to reduce from owning two cars to one car, but going totally car free is likely to be a realistic option only for residents of areas with significant transit service (i.e. – the 255 bus route).

However, even with the above limitations, promoting priced parking is an important strategy the City could pursue to help encourage an evolution toward RSP in Kirkland. When the price of parking is unbundled from the price of the unit, consumers get a more transparent understanding of the actual costs of storing their car, and that understanding typically underscores the potential of alternatives to owning car.

One method Kirkland could use to promote pricing in multifamily developments is to offer a reduction in parking requirements in exchange for unbundling. The RSP model code context-based approach proposes a reduction of 20 percent for unbundling, based on data from the multifamily utilization survey. If desired, that percent reduction could be tailored to better fit the Kirkland context, since in much of the City that context may translate to a weaker relationship between parking price and utilization, as noted above. The City could also consider specifying reductions that vary by zone, or offering the reduction in the downtown area only. Since it the most urban area in Kirkland, the downtown area would be expected to have the strongest relationship between pricing and utilization.

Pricing on-street parking in downtown Kirkland would complement unbundling in multifamily buildings to create a rational market for parking that would promote RSP outcomes. To help overcome political resistance to charging for on-street parking, the City could consider implementing a Parking Benefits District in downtown. In Parking Benefit Districts, revenue collected for parking fees within the District are spent on improvements within District. Because the revenue gets spent locally, members of the community tend to be much more receptive to parking management that involves meters or paid permits.

**APPENDIX 6.1: RSP Model Code proposed context-based adjustments and reductions**

**ADJUSTMENTS FOR HOUSING UNIT TYPE:**

studio*	1-bedroom*	2-bedroom*	3-bedroom+*	residential suite
0.85X	1X	1.6X	1.8X	0.5X

**ADJUSTMENTS FOR RESIDENT CHARACTERISTICS:**

very low-income	low-income*	workforce	senior*	assisted living	dormitory
0.5X	0.65X	0.75X	0.5X	0.33X	0.33X

**REDUCTIONS FOR TRANSPORTATION ALTERNATIVES:**

frequent transit	fixed-guideway transit	bike share facility	resident TMP	transit-supportive design
25% / 50%	50% / 100%	up to 25%	up to 20%	up to 10%

**REDUCTIONS FOR OFF-STREET PARKING MANAGEMENT:**

unbundling*	shared parking	remote parking	in-lieu fee	deferred parking	lease/deed restricted parking
20%	up to 50%	up to 100%	up to 100%	up to 50%	up to 100%

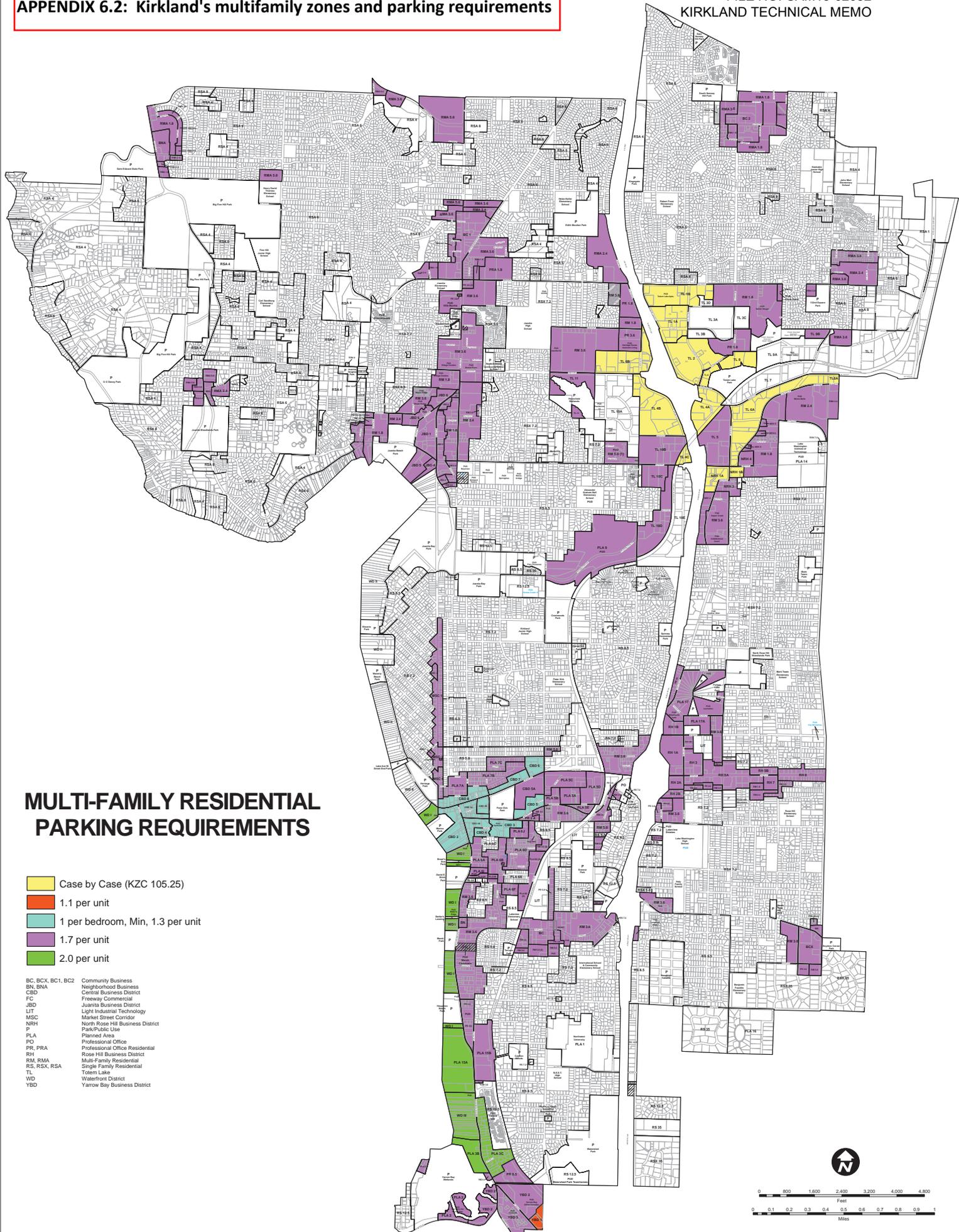
**PARKING STALL SUBSTITUTIONS:**

car share stalls	bike parking stalls	motorcycle parking	adjacent on-street spaces
4 : 1 (up to 40%)	1 : 4 (up to 25%)	1 : 2 (up to 5%)	1 : 1

*Notes:*

1. Factors appended with an asterisk\* are those that were derived from the RSP multifamily parking utilization survey statistical analysis.
2. An "X" in the table indicates that the baseline minimum would be multiplied by this factor to determine the adjusted minimum.

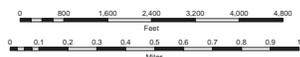
APPENDIX 6.2: Kirkland's multifamily zones and parking requirements



MULTI-FAMILY RESIDENTIAL PARKING REQUIREMENTS

- Case by Case (KZC 105.25)
- 1.1 per unit
- 1 per bedroom, Min. 1.3 per unit
- 1.7 per unit
- 2.0 per unit

- BC, BCX, BC1, BC2 Community Business
- BN, BNA Neighborhood Business
- CBD Central Business District
- FC Freeway Commercial
- JBD Juanita Business District
- LIT Light Industrial/Technology
- MSC Market Street Corridor
- NRH North Rose Hill Business District
- P Park/Public Use
- PLA Planned Area
- PO Professional Office
- PR, PRA Professional Office Residential
- RH Rose Hill Business District
- RM, RMA Multi-Family Residential
- RS, RSX, RSA Single Family Residential
- TL Totem Lake
- WD Waterfront District
- YBD Yarrow Bay Business District







## MEMORANDUM

Date: June 18, 2014  
To: Jon Regala, City of Kirkland  
From: Chris Breiland, Justin Resnick, and Don Samdahl, Fehr & Peers  
Subject: **Right Size Parking Web Calculator Estimates in Kirkland**

SE12-0248

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### OVERVIEW

The Right Size Parking (RSP) Web Calculator is a tool to assist transportation and land use planners in King County understand how multifamily residential parking utilization varies under different urban contexts, transit service levels, parking pricing schemes, and development programs (number of bedrooms per unit, rents, etc.). The intent of the web calculator is to provide planners with more information than traditional national parking data sources when developing and updating parking codes to reduce the oversupply of multifamily parking in the county. Given that the web calculator was developed using county-wide data, the Kirkland Planning Commission and Houghton Community Council were interested in better understanding how the tool matched observed multifamily parking utilization in Kirkland. In this memo, we compare the results of the web calculator to the observed parking utilization rates collected at 24 multi-family developments around the City of Kirkland over the last several years. Additionally, several observations from Redmond's Overlake area are included in the analysis.

#### General Findings

Overall, the RSP web calculator is estimating parking utilization accurately for most of the selected sites in Kirkland, with 20 of 24 sites within a 15 percent level of error. We do note, however, a slight tendency for the model to under-predict utilization. **Tables 1** through **3** below display the detailed inputs and output of the RSP Web Calculator compared to the observed parking utilization rates at the buildings. Table 1 presents the results of the original RSP data collection effort. Table 2 presents the new data collected as part of the Kirkland RSP Pilot project, which is collecting additional information specific to Kirkland. Table 3 contains parking utilization observations from multifamily projects in Downtown Kirkland that were collected as part of other transportation studies in the City. Note that since the data in Table 3 was not collected as part of the Right Size Parking Project, much of the input data for the RSP model was estimated based on similar observed data and should be taken into consideration when reviewing the results.



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**Table 1. Original RSP Web Calculator Kirkland Study Sites Results**

Input	Output									
<b>Right Size Parking: Web Calculator</b>										
Neighborhood: <b>Bridle Trails</b> Lakeview Totem Lake <b>2012 Counts</b> S. Juanita S. Juanita S. Juanita S. Juanita Moss Bay N. Rose Hill										
Variables	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10
Studio Units	0	0	0	47	23	0	87	0	22	12
1 Br Units	32	106	59	105	92	6	207	217	89	19
2 Br Units	75	146	112	39	48	9	72	204	43	13
3+ Br Units	0	34	27	0	0	0	0	47	0	0
Studio Rent	\$0	\$0	\$0	\$815	\$1,140	\$0	\$1,023	\$0	\$1,195	\$1,042
1 Br Rent	\$1,267	\$1,845	\$1,005	\$900	\$1,224	\$1,263	\$1,473	\$1,088	\$1,617	\$1,203
2 Br Rent	\$1,591	\$2,420	\$1,206	\$1,020	\$1,414	\$1,508	\$2,095	\$1,505	\$2,106	\$1,573
3+ Br Rent	\$0	\$3,400	\$1,402	\$0	\$0	\$0	\$0	\$1,876	\$0	\$0
Avg. Sqft per Unit	845	1,011	952	649	649	1,165	828	822	838	801
Affordable Units	0	0	0	0	0	0	56	0	0	4
Mo. Parking Cost	\$0	\$40	\$0	\$0	\$0	\$0	\$83	\$0	\$50	\$50
Population	63,598	58,381	66,591	39,192	71,375	71,374	70,958	68,972	64,791	66,165
Jobs	44,800	50,524	36,766	36,209	31,488	31,963	32,132	39,340	39,946	41,514
Transit Service	1,248	1,228	1,277	1,311	1,225	1,269	1,299	1,160	1,264	1,238
<b>Predicted Utilization</b>	<b>1.28</b>	<b>1.31</b>	<b>1.28</b>	<b>1.20</b>	<b>1.20</b>	<b>1.30</b>	<b>1.00</b>	<b>1.31</b>	<b>1.16</b>	<b>1.06</b>
<b>Observed Utilization</b>	<b>1.50</b>	<b>1.38</b>	<b>1.31</b>	<b>1.12</b>	<b>1.13</b>	<b>1.07</b>	<b>0.64</b>	<b>1.35</b>	<b>0.90</b>	<b>1.25</b>
<b>Percent Error</b>	<b>-15%</b>	<b>-5%</b>	<b>-3%</b>	<b>7%</b>	<b>6%</b>	<b>22%</b>	<b>56%</b>	<b>-3%</b>	<b>29%</b>	<b>-15%</b>
<b>Supply Using Model Code*</b>	<b>1.53</b>	<b>1.53</b>	<b>1.55</b>	<b>1.34</b>	<b>1.38</b>	<b>1.50</b>	<b>1.35</b>	<b>1.49</b>	<b>1.38</b>	<b>1.58</b>
<b>Supply Using Current Code</b>	<b>2.20</b>	<b>2.50</b>	<b>2.20</b>	<b>2.20</b>	<b>2.20</b>	<b>2.20</b>	<b>2.20</b>	<b>2.20</b>	<b>1.45</b>	<b>2.20</b>
<b>Actual Supply</b>	<b>2.10</b>	<b>1.52</b>	<b>1.50</b>	<b>1.32</b>	<b>1.50</b>	<b>2.80</b>	<b>0.90</b>	<b>1.89</b>	<b>1.22</b>	<b>1.81</b>

\*See Page 7 for Model Code Details

Highland Park  
421 Kirkland Ave.

Park Terrace  
808 2nd Ave

Houghton Court  
6719 106th Ave NE

Affinity  
11308 124th Ave NE

Sancerre  
12648 NE 144th St

Portsmith  
108 2nd Ave S

Wild Glen  
9927 NE 144th Ln

**Table 2. New RSP Kirkland Pilot Study Site Results**

Input	Estimated	Output	Condo				
<b>Right Size Parking: Web Calculator</b>							
<b>2014 Counts</b>							
Variables	Site 11	Site 12	Site 13	Site 14	Site 15	Site 16	Site 17
Studio Units	0	0	0	0	0	0	0
1 Br Units	2	4	0	0	54	45	0
2 Br Units	2	10	24	16	81	108	48
3+ Br Units	2	0	0	20	0	0	24
Studio Rent	\$1,043	\$1,043	\$1,043	\$1,043	\$1,043	\$1,565	\$1,043
1 Br Rent	\$1,288	\$1,288	\$1,288	\$1,288	\$1,288	\$1,933	\$1,288
2 Br Rent	\$1,644	\$1,644	\$1,644	\$1,644	\$1,644	\$2,466	\$1,644
3+ Br Rent	\$2,226	\$2,226	\$2,226	\$2,226	\$2,226	\$3,339	\$2,226
Avg. Sqft per Unit	1,012	1,002	936	1,054	796	1,098	1,173
Affordable Units	0	0	0	0	0	0	0
Mo. Parking Cost	\$0	\$0	\$18	\$0	\$0	\$0	\$0
Population	63,225	66,653	66,271	64,588	61,998	61,711	70,440
Jobs	40,373	38,836	39,207	41,587	31,079	39,327	25,701
Transit Service	1,298	1,263	1,264	1,291	1,240	1,291	1,138
<b>Predicted Utilization</b>	<b>1.33</b>	<b>1.30</b>	<b>1.29</b>	<b>1.38</b>	<b>1.32</b>	<b>1.35</b>	<b>1.51</b>
<b>Observed Utilization</b>	<b>0.80</b>	<b>1.40</b>	<b>1.50</b>	<b>1.70</b>	<b>1.30</b>	<b>1.20</b>	<b>1.50</b>
<b>Percent Error</b>	<b>66%</b>	<b>-7%</b>	<b>-14%</b>	<b>-19%</b>	<b>1%</b>	<b>12%</b>	<b>1%</b>
<b>Supply Using Model Code*</b>	<b>1.58</b>	<b>1.53</b>	<b>1.63</b>	<b>1.73</b>	<b>1.50</b>	<b>1.53</b>	<b>1.69</b>
<b>Supply Using Current Code</b>	<b>2.20</b>	<b>2.20</b>	<b>2.20</b>	<b>2.20</b>	<b>2.20</b>	<b>2.20</b>	<b>2.50</b>
<b>Actual Supply</b>	<b>1.50</b>	<b>1.64</b>	<b>1.75</b>	<b>2.08</b>	<b>1.56</b>	<b>1.72</b>	<b>2.31</b>

\*See Page 7 for Model Code Details



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**Table 3. Data Collected for Downtown Kirkland Developments Through Other Studies**

Input	Estimated	Output	Condo								
Right Size Parking: Web Calculator											
2006 Counts											
Variables	Site 18	Site 19	Site 20	Site 21	Site 22	Site 23	Site 24	March 2014 Counts			
Studio Units	0	0	0	0	0	0	0				
1 Br Units	0	17	27	45	45	78	17				
2 Br Units	13	31	48	108	36	32	43				
3+ Br Units	0	0	0	0	0	0	0				
Studio Rent	\$1,565	\$1,043	\$1,043	\$1,565	\$1,043	\$1,043	\$1,565				
1 Br Rent	\$1,933	\$1,288	\$1,288	\$1,933	\$1,288	\$1,288	\$1,933				
2 Br Rent	\$2,466	\$1,644	\$1,644	\$2,466	\$1,644	\$1,644	\$2,466				
3+ Br Rent	\$3,339	\$2,226	\$2,226	\$3,339	\$2,226	\$2,226	\$3,339				
Avg. Sqft per Unit	1,711	1,034	1,324	1,098	1,106	1,012	1,012				
Affordable Units	0	0	0	0	0	0	0				
Mo. Parking Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
Population	61,383	62,412	62,412	61,711	62,412	62,120	64,297				
Jobs	37,969	38,187	38,187	39,327	38,187	39,379	40,439				
Transit Service	1,294	1,293	1,293	1,291	1,293	1,364	1,389				
<b>Predicted Utilization</b>	<b>1.47</b>	<b>1.29</b>	<b>1.33</b>	<b>1.35</b>	<b>1.27</b>	<b>1.17</b>	<b>1.26</b>				
<b>Observed Utilization</b>	<b>1.92</b>	<b>1.31</b>	<b>1.27</b>	<b>1.17</b>	<b>1.24</b>	<b>1.23</b>	<b>1.30</b>				
<b>Percent Error</b>	<b>-23%</b>	<b>-1%</b>	<b>5%</b>	<b>15%</b>	<b>2%</b>	<b>-5%</b>	<b>-3%</b>				
Supply Using Model Code*	1.63	1.51	1.51	1.53	1.44	1.39	1.53				
Supply Using Current Code	2.10	1.75	1.74	1.81	1.54	1.39	1.82				
Actual Supply	2.23	1.81	1.83	1.72	1.59	1.89	1.90				

\*See Page 7 for Model Code Details

### Model Inputs and Urban Form

To estimate parking utilization, the web calculator uses the number of units in a building, the number of bedrooms in each unit, the rental price, unit square footage, number of affordable units, monthly cost for parking, which are specific to each building. It also includes three characteristics of the location of the building to approximate urban form and available transportation choices available to residents of each development – population density, job density, and transit service/accessibility. Of the three location characteristic variables, the model is most sensitive to the transit service score, which does not vary substantially across the sample set of multifamily developments. Tables 1 through 3 summarize the range of input variables and Figure 1 shows the approximate locations of the multifamily sites.



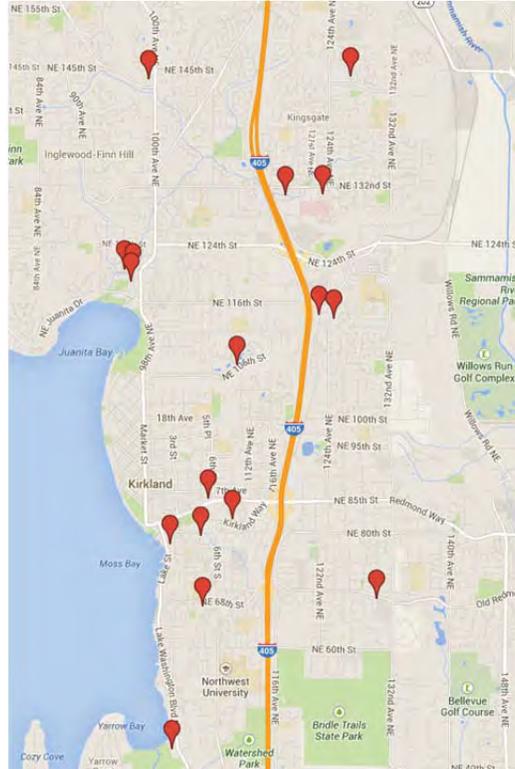
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Note that Table 2 has estimated data on rental rates. To facilitate the collection of data for the RSP Pilot Project, the project team elected to not collect rental rate information since this sensitive information can reduce property owner's willingness to participate in the study. This lack of rental data was not considered to be a major issue since rental rates are only marginally related to parking utilization. For example, if the rental price were 50 percent higher at Site 12, the RSP model forecasted parking utilization would increase by 0.04 stalls per unit, or about 3 percent. To fill in this missing data, the average rental rate from the other observed properties was input, with two exceptions as noted below. Additionally, rental rates are not applicable to condominium units. Therefore, rental rates are always estimated for condos. Table 3 has additional estimated data since the earlier studies did not collect information with RSP in mind. The studies did collect information about the number of bedrooms per unit, which was used to estimate the number of one versus two bedroom units in each development.

The lack of variability in transit scores shown in Tables 1 through 3 was surprising given that the surveyed sites are scattered throughout the city in locations like Downtown and Totem Lake and other areas that have less transit. The results of the investigation indicated that there is a fair degree of transit service score variation across the city, ranging from about 1,100 in Finn Hill (which represents an area with very little transit service) to more than 1,600 at the Kirkland Transit Center. However, most arterial corridors where the apartments are located in the City have a score of 1,250-1,300. In looking at Downtown Kirkland, the transit score decreases rapidly to about 1,300 by the time you are 2 blocks from the Transit Center. We also evaluated the 108<sup>th</sup> Avenue NE corridor, which is where King County Metro Route 255 travels. For the parcels that are immediately adjacent to the bus stops, the transit score is approximately 1,500, but if you travel 200 feet away from the bus stop, the transit score is about 1,250. This change in transit score can have a substantial impact on parking utilization estimates. For example, Site 9, which is in Downtown Kirkland, would have a RSP estimated utilization of 0.9 if it had a transit score of 1,500 as opposed to 1,264, making the estimated value closer to the observed value. This finding indicates that in certain transit rich environments, the web calculator may be overestimating parking utilization. Given that research on pedestrian access to transit indicates that most people are willing to walk 1,200-2,600 feet to reach frequent transit (which translates into a 5-15 minute walk), it is reasonable to manually adjust the RSP web model to more accurately consider the availability of high quality transit service in portions of Kirkland. For example, planners may wish to test a site's sensitivity to the model's range of transit scores within a couple of blocks to develop a more robust estimate of parking demand in locations like Downtown, Totem Lake, South Kirkland, or along frequent transit routes, like 255, 234/235, and 245. A recommended practice to applying a transit score adjustment is suggested at the end of this memo.



**Figure 1. Kirkland Study Site Locations**



**Individual Site Observations**

As shown in Tables 1 through 3, four sites have high levels (shaded in gray) of error that are likely due to specific and generally explainable circumstances.

Sites 6 and 11 only have fifteen and six units in total, respectively, and therefore these sites have a small sample size for measuring parking occupancy on a given day. If two additional vehicles had been present on the day of observation at Site 6, then the web calculator estimate would be within ten percent error. Site 7 is another outlier. This building charges \$83 per month for parking, which is much higher than the other sites. Given the availability of street parking in the vicinity, it is possible that the high price of parking is resulting in spillover to the neighboring streets, where parking is free and generally unrestricted. The RSP model substantially under-predicts parking utilization at Site 18 (23 percent error). This site is small and to be conservative, the City included the utilization of three adjacent on-street stalls in the parking utilization total. However, even without these on-street spaces included, the utilization per unit would be about 1.65, which is considerably higher than any other apartment or condo in downtown Kirkland. The RSP model does predict higher than typical utilization for this condo, in part due to the large unit sizes. The average “rent” was also increased since the King County Assessors database indicated that these units are quite expensive (\$500k-\$1,000k). There is a chance that there was an event the day the count was taken, which could have increased the demand, but there are no



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other clear explanations for the high demand at this site. Due to the particular characteristics of these four locations, these sites are considered unique outliers that are outside of the range of the model's ability to predict.

The web calculator also overestimates parking utilization at Site 9, which is located in downtown Kirkland and features a number of studio apartments. As described above, the walkable character and good transit accessibility of the location may be dampening the demand for parking for this type of apartment complex. There is anecdotal evidence that younger and older residents who live in smaller units in transit-rich areas tend to have considerably lower car ownership rates than other residents. It is notable that the condominium sites in downtown (largely shown in Table 3) are, for the most part, accurately predicted by the RSP web calculator. Given that most other downtown Kirkland sites are accurately predicted by the RSP web calculator, Site 9 is considered an outlier, but one that is worthy of additional monitoring given the trend to build smaller units in transit-rich areas.

### **Redmond Overlake Sites**

The City of Kirkland obtained similar RSP observations from the City of Redmond, which is undergoing a similar analysis of parking standards throughout the city. Three sites from Overlake were featured in a recent document prepared for the City by the RSP consultant team. The analysis of the site data indicated the following:

- Overlake Village: Observed Utilization = 0.93 per unit
- Overlake Employment (Microsoft Area) = 0.99 per unit
- Overlake Residential: 1.07 per unit

A review of the RSP web calculator estimates for these areas were generally in-line with the observed utilization above. When the RSP team audited the performance of the RSP web calculator for Redmond (similar to what was done with Kirkland), similar results were found. Specifically, the RSP web calculator is generally accurate, with a few outliers both above and below the RSP estimate. Note that the observed utilization rates in Overlake Village and the Overlake Employment area are quite a bit below what was observed in Kirkland. The major difference between the two areas is the very high employment density in Overlake. The area most like Overlake in Kirkland is around the South Kirkland Park and Ride, which has fairly high employment densities (although lower than Overlake) and similar population densities.

### **Conclusions and Recommendations**

The Right Size Parking Web Calculator generally predicts parking utilization around the City of Kirkland accurately, with most sites within +/-15 percent of the observed value. Based on the regional nature of the web model, some discretion may be necessary when applying the model in Kirkland, particularly when taking into consideration some of the subtler variations in urban form, pedestrian character, and transit service throughout Kirkland.



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Specifically, the Planning Commission and Houghton Community Council raised questions about the following issues:

- Are the RSP team's recommended parking adjustments by unit type supported by the data?

The unit type adjustments are summarized below along with the method for developing the adjustments.

- Studio: .93 x base
- 1 bed: base
- 2 bed: 1.25 x base
- 3+ bed: 1.39 x base

The adjustments identified above were developed through the following methodology:

1. Calculate the "base" parking utilization by inputting a hypothetical development in Kirkland (based on a citywide average of all RSP web model input data) with only one-bedroom units.
2. Calculate parking utilization for other unit types. As was done with the one-bedroom units, hypothetical developments with only studio, two-bedroom, and three-bedroom units were entered into the RSP web model.
3. Calculate the ratio of non-base to base parking utilization for each unit type. The parking utilization for the hypothetical studio, two-bedroom, and three-bedroom developments was divided by the one-bedroom base case. For example:

Studio Unit Type Adjustment = 93 parking stalls utilized by hypothetical studio development / 100 parking stalls utilized by hypothetical one-bedroom development = 0.93

4. Calculate the final base rate. The result of the RSP web model on the hypothetical one-bedroom development was an estimate of 1.11 parking spaces per unit. To account for the tendency for the RSP web model to slightly under-predict parking utilization in Kirkland, this initial estimate was increased by 15 percent, which rounds to 1.3 parking spaces per unit.

Tables 1-3 show the parking supply that would result from applying the model code above when applying a base one-bedroom rate of 1.3 parking spaces per unit. This base was developed by using the RSP web calculator to estimate the demand for a hypothetical apartment complex with only one-bedroom units using average RSP web



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model input data from across the entire city of Kirkland. As shown in Tables 1-3, this model code supply would be greater than the observed utilization in all but one case (Site 18, which is an outlier as described earlier). In many cases, the new supply would be close to the observed utilization and is considerably lower than the supply that would be developed using the current code.

- The RSP model code suggested a 25-50 percent reduction in the base parking minimum requirements if a multifamily development is within ½ mile of frequent transit (defined as service every 20 minutes or more frequently from roughly 7 AM to 6 PM during weekdays). Is this reduction justified by the analysis?

It is important to note that the model code recommendations highlighted above were based on the RSP project team's review of best parking code practices across the country. Specifically, the cities evaluated that chose to make relatively substantial parking minimum reductions along high frequency transit lines tend to do so to support and encourage additional density along transit corridors. It is also important to recognize that the cities tend to reduce *minimum* requirements and not to establish parking maximum requirements. The goal is to facilitate those developers who feel there is a market to develop projects along transit lines with less parking and not to compel developers to provide less parking than they feel is justifiable given the market conditions.

With the above context in mind, the analysis results of the Kirkland data are mixed. Of the 24 observed sites, 8 are located immediately along a frequent transit route and 10 others are generally within a quarter-mile of a frequent transit route. Of these 18 sites, the RSP model generally predicted parking utilization that was close to the observed values, even though the transit scores were generally not indicative of an area that has frequent transit service. As noted above, the RSP web model gives a transit score of about 1,500-1,600 for the area immediately around a bus stop, but the score is about 1,250 (which is the citywide average) for areas more than a few hundred feet from a stop. None of the observed sites were directly adjacent to a frequent transit stop, although the sites along the frequent transit lines were all within a short walk to a stop. As noted earlier, one site close to the Kirkland Transit Center was substantially over-predicted by the RSP web model, but other condos similarly close to the Transit Center were accurately predicted by the RSP web model.

Based on these results, there is no direct evidence that multifamily properties currently along Kirkland's frequent transit routes have parking utilization rates that are substantially lower than the citywide average. Using this fact alone, one could argue that there is no justification to reducing the parking minimums along frequent transit corridors. However, given that most cities choose to reduce parking minimums along transit corridors to reflect greater transportation choices, support other planning goals, and encourage mixed-use development along corridors that have substantial investments in alternative travel modes, the project team feels that some sort of



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parking minimum adjustment is reasonable for Kirkland. When applying the transit scores found at the stops along the frequent transit routes, the RSP web model's estimated parking utilization drops by about 20 percent. Therefore, a more data-based approach to reducing parking minimums along frequent transit routes in Kirkland suggests a reduction of base parking minimums of 20 percent within a ½ mile buffer around frequent transit routes. **Table 4** summarizes the results of applying the RSP transit score data for two sites in the RSP dataset. Site 3 is along Route 234/235 on Lake Washington Boulevard. Taking the average transit score of the four transit stops closest to the project indicates a transit score of 1,500. Site 9 is in downtown Kirkland near the Transit Center. The transit score at the Transit Center is 1,600. When these new scores are applied in the RSP web model, the parking utilization decreases by 15 and 20 percent, respectively for the two sites.

**Table 4. Transit Adjustments Applied to Sites 3 and 9**

Input	Estimated	Output	Condo	
<b>Right Size Parking: Web Calculator</b>				
Variables	Site 3	Site 3 Transit	Site 9	Site 9 Transit
Studio Units	0	0	22	22
1 Br Units	106	106	89	89
2 Br Units	146	146	43	43
3+ Br Units	34	34	0	0
Studio Rent	\$0	\$0	\$1,195	\$1,195
1 Br Rent	\$1,845	\$1,845	\$1,617	\$1,617
2 Br Rent	\$2,420	\$2,420	\$2,106	\$2,106
3+ Br Rent	\$3,400	\$3,400	\$0	\$0
Avg. Sqft per Unit	1,011	1,011	838	838
Affordable Units	0	0	0	0
Mo. Parking Cost	\$40	\$40	\$50	\$50
Population	58,381	58,381	64,791	64,791
Jobs	50,524	50,524	39,946	39,946
Transit Service	1,228	1,500	1,264	1,600
<b>Predicted Utilization</b>	<b>1.31</b>	<b>1.13</b>	<b>1.16</b>	<b>0.94</b>
<b>Observed Utilization</b>	<b>1.31</b>	<b>1.31</b>	<b>0.90</b>	<b>0.90</b>
<b>Supply Using Model Code*</b>	<b>1.55</b>	<b>1.24</b>	<b>1.38</b>	<b>1.11</b>
<b>Supply Using Current Code</b>	<b>2.20</b>	<b>2.20</b>	<b>1.45</b>	<b>1.45</b>
<b>Actual Supply</b>	<b>1.50</b>	<b>1.50</b>	<b>1.22</b>	<b>1.22</b>

\*See Page 7 for Model Code Details

As described above, the unit-based approach to developing parking standards come much closer to matching observed utilization than the existing code. In all but one case, the unit-based approach accommodates the observed parking utilization, and in many cases with some additional room to spare. Using the unit-based approach could be a way to better match parking minimum requirements to utilization, but the RSP team would argue that minimum requirements would ideally be set at or *just below* observed utilization. This ensures that developers are not required to build parking stalls that never get used since they can always

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build more than the minimum. However, setting parking minimums below observed utilization (even slightly so) may warrant additional on-street parking management by the City to ensure that short-sighted developers who do not price and manage their on-site demand well are not unduly impacting area residents and businesses. Based on the analysis of the data in the tables above (the 20 sites not identified as outliers) the average parking utilization in the city is 1.27 stalls per unit.

The transit adjustment to the parking code suggested in the document is not necessarily supported by the observed data, particularly for condominium units. If the City chooses to elect this option, it may do so using similar logic to other cities that have a similar provision, which is to encourage additional density in transit corridors. This goal generally aligns with Kirkland's goals to encourage transit-supportive development and also matches King County Metro's Transit Service Guidelines. However, given that Kirkland does not appear to have as strong of a relationship between increased transit service and lower parking rates compared to other areas in the region, the City again may need to enact more strict on-street parking management in areas that have a transit service parking reduction.