



CITY OF KIRKLAND
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To: City Council
From: Parking Advisory Board, Jack Wherry, Chair
Date: July 9, 2009
Subject: STATUS REPORT FROM PARKING ADVISORY BOARD

Issues

The purpose of this memo is to provide the Council an update on downtown parking issues. The Parking Advisory Board (PAB) reports on progress and seeks concurrence on future direction.

The Downtown Kirkland Parking Study and Plan (October 2003) recommended the establishment of a Parking Advisory Board (p. 61) " .. made up of a representative cross section of downtown interests...(to:) 1) assist the Parking Coordinator/Manager in the implementation of the parking management plan, 2) review parking issues over time, and 3) advise City Council on strategy implementation based on the Guiding Principles for parking management." This memo addresses all three of these charges. First, we discuss measuring the need for parking that led to the implementation of pay parking in evening hours. Second, we discuss issues related to possible amendments to ParkSmart and funding for new parking supply. Third, we offer advice for building and managing parking supply.

Background

Most observers feel that Kirkland has had a parking problem for many years, and this has hindered the development of a healthy downtown. Yet solutions to this parking problem have been elusive. Building a free-standing parking garage on publically owned parcels has been considered, but each possible site has problems. Beneath Lee Johnson Field is considered by most as too far from the downtown core and lacks a needed partnership with others, such as Parkplace or a new recreation center located at Peter Kirk Park. Some stakeholders would like to see underground parking at the Lake & Central location, but the high cost deters other stakeholders. Others prefer resurrecting the Lakeshore Plaza project with integration of parking and new development. But the loss of plaza-level retail and a two-story height limit may make this infeasible. Some public-private development efforts with the City taking the lead have floundered. Consequently, most stakeholders prefer a public-private development led by the private side. The PAB recommends this approach be pursued.

However, the redevelopment potential in downtown Kirkland is problematic. Downtown property owners and developers believe height limits and suburban-style parking

requirements make redevelopment uneconomic in the CBD1 and CBD2 zones. This is compounded by a seasonal retail sector that is oriented to entertainment and discretionary goods rather than more stable consumer goods. As a result, the economic recession has hit downtown Kirkland very hard and new parking is not currently a high priority. However, we need to be ready when the economy improves. Parking may be a necessary ingredient to transitioning downtown to be oriented more to consumer goods and more of a year around destination. Parking will be needed to support an increase in density to instill vibrancy and a stronger downtown.

As a result of density limitations and downtown character, the legacy buildings in the downtown core are not being redeveloped. Redevelopment at a low density does not yield a sufficient return to cover the investment in land, new construction, and parking, and the demand for new space is not strong. Even if these were to change, it is not reasonable to expect redevelopment of small parcels to provide parking on site. A shared parking strategy is needed.

In the past, a special assessment of legacy property owners provided needed parking at Lake and Central, and the City built a parking garage at the Library. We are at a point of deciding where and how the next increment of public parking is to be added. The PAB plans another round of stakeholder meetings to develop a strategy for adding a new increment of parking supply.

The need for more parking

Although it is widely perceived that more parking is needed at all times in downtown Kirkland, the quarterly occupancy studies show parking deficiencies occur primarily at noon times, the evening hours, and throughout the days in good weather. Another measure of parking need is to apply parking requirements as called for in the zoning code to downtown blocks, many of which contain legacy buildings on small parcel with no parking. This is reported in the memo from stakeholders on financing new parking supply (Attachment 1). While this does not yield an exact estimate of parking that is needed, it does provide evidence to support the position that several hundred more parking stalls are needed downtown. In addition, public parks and buildings, such as the library, performance center, teen center, and community center, contribute to the parking demand and utilize much of the public parking supply.

Priced parking in the evening

Attachment 2 describes the roll out of priced parking in evenings (5 to 9 PM) in city lots that was implemented on March 16. Making parking free during the daytime mitigated much of the opposition to pay parking in the evening hours. Interviews with 97 affected businesses in the downtown turned up only one business that felt they were not consulted or that the pay parking would affect their business negatively. Some of the ideas we heard will be implemented now such as a central place on the City website for receiving complaints and ideas such as validation will be studied further.

During the first two weeks of evening pay parking, warning tickets were issued, and staff and PAB members offered assistance to acquaint users with use of the pay

stations. Generally, the introduction of evening pay parking went well and we have not received many complaints. However, more tickets are being written as learning of the change takes time.

Funding new parking supply

Attachment 1 reports on input from stakeholders on how to secure new parking supply. Following Council direction given at the Council/PAB study session in December of 2007 and in February of 2008, the PAB convened a group of downtown stakeholders¹ to help us move forward in the area of pay parking and in securing new parking supply.

The process of engaging stakeholders to enlarge the perspective of the PAB resulted in two recommendations: 1) do not price on-street parking until there is a firm commitment to construct new supply, and 2) partner with a developer rather than build a stand-alone garage. *This second recommendation calls for a commitment on the part of the city to be ready to partner by preparing a financing plan so that a developer is not delayed by the City.* Such a financing plan will likely involve a mix of: 1) expanding pay parking, 2) assessing nearby benefited properties/businesses by means of a Parking Benefit District, and 3) general revenue. Although the stakeholders are not ready to price on-street parking now, they realize financing and building new supply will require pricing of on-street parking. Pricing of on-street parking may necessitate changes to ParkSmart and to the management of the Library Garage.

Readiness means working through a process with downtown business, resident, and property owner stakeholders. Stakeholders will be reconvened to develop an efficient and equitable financing plan to increase parking supply. In particular, formation of a parking benefit district to allocate a portion of the cost of shared parking among benefited properties within walking distance needs to be carefully considered by those properties and businesses impacted. For example, they will need to study options for cost allocation, such as assessed value and/or floor area, with reductions for on-site parking. Currently, there is no consensus among the property owners as to how this might be implemented or even if it even fair. Some properties may warrant credit for prior participation in the acquisition of the Lake & Central lot. How to include new development into the benefit district also needs to be considered.

The stakeholders will also need to study what portion of the cost of new parking ought to be borne by the general public to reflect park users, users of public facilities, special event users, and other non-retail visitors to downtown. Finally, a significant portion of the cost of new parking ought to be borne by users by means of parking charges. The existing parking revenue stream is insufficient to cover enough of the cost. On-street parking charges will be needed to generate a sufficient revenue stream to satisfy holders of parking revenue bonds.

¹ Stakeholders included representatives from Downtown Commercial Property owners, KDA, Chamber, Restaurant operators, Gallery owners, Park Board, Downtown Condo Owners and Moss Bay Neighborhood Association

Stakeholders will also be asked to explore other funding sources. Some cities have been able to build parking facilities that serve shoppers and others, such as a ferry or transit terminals, convention or sports centers, which bring other funding sources into play.

Leasing Parking at the Antique Mart

The PAB recommends the City lease the parking lot at the Antique Mart and operate it as a public parking lot. In part, it is needed to replace spaces that will be lost due to reconstruction of the transit center and the pump station. We recommend it be managed as pay parking from 9 am to 9 pm. It will provide needed supply near the center of downtown and could provide a smooth transition to a partnership of public and private parking when the Antique Mart is redeveloped.

Parking Requirements

Suburban-style parking requirements do not work well in downtown. Recently, the PAB recommended, and the Council approved, a reduction of parking for the Parkplace redevelopment. We will be faced with requests for parking reductions for most downtown developments.

Current parking requirements are based on single use developments, free parking, and access only by auto. This is not the case for mixed use developments in areas with high levels of pedestrian and transit access.

The PAB will develop a recommendation to the Planning Commission for a revision to parking requirements for developments in CBD zones.

ParkSmart

Although we are moving to market-based pricing of off street parking, we still rely on regulations to manage on-street parking, by a two-hour time limit and prohibition of employee parking in the downtown core (ParkSmart). Attachment 3 is a draft ordinance that proposes a change to ParkSmart. The change will prohibit free employee parking in the Library garage for employees of new buildings that meet parking requirements. These employees will still not be able to park on downtown streets, they are expected to park in the facilities that are provided for them at their worksite.

Nevertheless, we are concerned that ParkSmart regulations do not work well. Employees do not have an incentive to register with ParkSmart unless they want to park in the Library garage. Many prefer not to be registered and "hide" their vehicles on the street. It is difficult to regulate unregistered employee cars. Now that business license fees increase with increasing numbers of employees, it appears that some employers are under reporting their employees. Getting employers to update the data on employees and their autos is problematic. High employee and auto turnover makes it difficult for employers to update the City's data on employees and their autos and for the City to monitor the data. Increasingly, it is difficult to find parking in the employee section of the library garage so the incentive of a permit is of less value. For these

reasons there are an increasing number of unregistered employees and unregistered cars hiding on street. If in the long term, we were to price parking on street there would be less need for ParkSmart to manage employee parking by regulation.

Because ParkSmart is not efficient, equitable and accepted, we recommend it be eliminated when and if on-street parking is priced. It is a costly program to administer. Half of one parking enforcement officer is spent in the office updating records. We estimate ParkSmart costs \$95,000 per year to administer. This includes time spent by the parking coordinator (\$3000), parking enforcement (\$60,000), and Municipal Court costs (\$32,000). In addition, one half of the debt service for the Library Garage amounts to over \$200,000 and one half of the parking garage maintenance and operations costs \$77,000. This is a substantial cost to provide free parking for downtown employees. Yet these are not costs that can be cut. Instead, we intend to reduce the in-office time of tracking violators and increase on-street enforcement.

A Stated Preference Parking Survey

Attachment 4 is a report of results of a parking survey that employed a methodology called Stated Preference (SP).² Respondents were asked to make a choice among parking options (on street, off-street lots, a new parking garage, and a free but distant on-street location). Characteristics of parking (price, walk distance, search time, time limit, and parking fine) were systematically varied. Asking respondents to make a choice yields better data than the more traditional "importance" ratings. The results of the SP parking survey show the extent to which pricing parking on street will result in spillover to neighborhood/distant but free parking. The SP parking survey results indicate who will oppose pricing and who will support it. Younger, working persons are less receptive to pricing and will walk to avoid paying, whereas older retired persons are willing to pay for parking if it makes convenient parking more available. The parking survey also indicated how usage of a new garage varies by location. The analysis shows why people are more inclined to drive and search for parking than they are to park farther away and walk. On average, respondents felt that a 1200-foot walk is equal to a parking cost of \$0.95 while a search time of five minutes is equal to a parking cost of \$0.45. Although walking 1200 feet takes nearly five minutes, it is perceived as twice as costly as a search time of 5 minutes.

Summary and Conclusions

Pay parking in City lots in the evening hours began on March 16 and seems to be working as planned. Further evaluation will be done.

The PAB recommends the City lease the parking lot at the Antique Mart and operate it as a public parking lot.

² Ken Dueker enlisted the assistance, at a very low cost, of a leading group of researchers in Stated Preference methods at the University of Technology in Sydney Australia.

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An amendment to ParkSmart is proposed for your consideration. We do not want to allow employees of new buildings that meet parking requirements to park in the Library garage. While we propose improvements to make ParkSmart work better, we feel that it should be phased out when it is timely to charge for on-street parking.

Parking requirements in CBD zones will be reviewed and changes recommended to foster redevelopment.

The City needs to exhibit a readiness to partner with developers to build new supply. This readiness includes a financing plan and pricing of on-street parking. The financing plan may require a parking item in the capital improvement plan, the formation of a parking benefit district, and issuance of parking revenue bonds. We seek Council concurrence that stakeholders be reconvened to develop a parking finance plan. Also, we want to encourage stakeholder groups, e.g., property owners, KDA, business owners, to convene parking committees to work in parallel and to provide sounding boards for our proposals. These other stakeholder groups may offer their own second-opinion proposals for joint development.

This approach to securing new parking supply differs from prior recommendations from downtown interests to build new parking supply as a necessary first step for downtown revitalization (a "build it and shoppers will come" approach). But it will be more effective.

ATTACHMENT 1

City of Kirkland, Parking Advisory Board
October 20, 2008 (Revised January 2009)

Financing New Parking Supply

Introduction

This report was prepared by the Parking Advisory Board after consultation with downtown stakeholders. The purpose of the report is to provide a framework for financing new parking supply in downtown Kirkland.

There is widespread acknowledgement of a “parking problem” in downtown Kirkland. However, there is little consensus as to the causes and what to do about the parking problem. Before proposing a solution the causes are reviewed. Then public provision of new parking supply is compared to a public-private partnership approach. Then, public finance principles are reviewed to fashion an equitable approach. Finally, we call for the development of a contingency financing plan that the City can implement in conjunction with a developer’s project.

Causes of Parking Problem

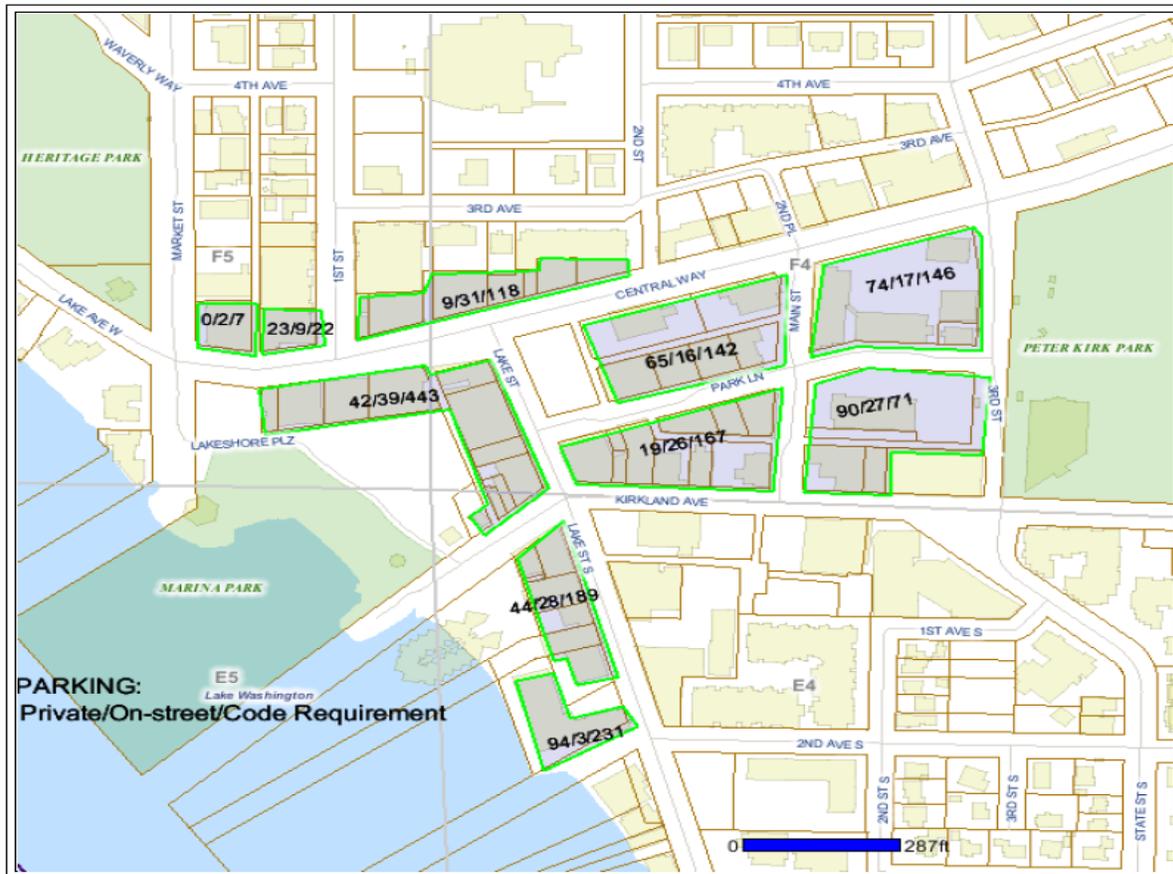
There are several causes to the parking problem in downtown Kirkland. The primary problem is seasonal and weather related. On a warm summer day downtown and Marina Park make for an attractive destination. Restaurants, sidewalks, and shops are full, and traffic is heavy; much of it is cruising and looking for parking. Unfortunately, there are not enough warm and sunny days to warrant building a large amount of parking that will handle peak demand. When it is cool and damp, downtown is dead and there is ample parking. Retail businesses have trouble making it through the off season.

Most downtowns have a parking problem in the daytime working hours due to a large office workforce. Without a large office workforce, Kirkland’s parking problem is in the evening hours as a result of an active restaurant trade. With few office buildings there is not much parking that can be used for office workers during the day and for others in the evening.

Another important cause of the parking problem in downtown Kirkland is a legacy of small buildings on small lots that do not provide on-site parking for their customers and employees. If current parking requirements were applied to buildings downtown as called for by the zoning code, there would need to be 1077 additional off-street parking spaces for the selected blocks in downtown that are not slated for redevelopment or that have been recently redeveloped. Clearly, this is not feasible or really needed given the amount of multiple-purpose trips and 191 existing public surface lot spaces and 196 on-street spaces adjacent to the selected blocks. Map 1 shows the selected blocks and the parking spaces required under code and the existing number of private off- and public on-street spaces. In total, the parking requirement is 1537 spaces while

only 460 off-street parking spaces are provided privately. The City provides 191 spaces in Lake & Central and Marina Park lots, and 196 on-street spaces adjacent to the selected blocks. The total of 847 spaces amounts to a little over 50 per cent of the number of spaces required under code. Although this is a high side estimate of parking deficiency downtown, it does indicate a parking deficiency. It is high because the parking requirements under code represents meeting demand for free spaces in single use suburban settings.

Sample Parking Inventory



The more pedestrian and mixed use character of downtown does not warrant applying these standards to the fullest extent.

Some redevelopment of the larger lots is occurring and they are required to provide parking on site to serve their customers and employees. However, on-site parking is not feasible or desired for small-lot redevelopment. Shared parking is more desirable than imposing parking requirements on each lot in downtown areas where there is more pedestrian access to businesses and fewer individual auto trips. Usually, the municipality plays a major role in the provision of shared parking in downtowns to foster multiple-purpose pedestrian trips and to discourage auto travel. Park once, eat, and shop many times is an important objective for downtown economic development.

Residential developments, even those that are mixed use, do not provide shared parking, whereas mixed-use developments with office above do provide parking that can be shared in evening hours and weekends.

Employees in legacy buildings have no place to park. ParkSmart is designed to prohibit employees from parking on street in the downtown. However, it is difficult to enforce due to rapid turnover of employees and autos, and there is little incentive to participate. Even though ParkSmart provides for some of them to park in the lower levels of the Library Garage, many choose to fight the system and hide out on street. In addition, the space in the Library Garage is inadequate to park employees of new developments. The PAB is considering restricting access to Library Parking Garage for employees from new developments that meet parking requirements while prohibiting them from parking on street.

The root of the parking problem is that it is free. But there is no such thing as free parking. The City and business may bear the cost, or users pay by means of search time or walking distance. When it is given away, users tend to over use or abuse it, and the cost of managing parking by regulation is high. Pricing parking, particularly on-street parking is more self regulating, and priced parking would generate revenue to increase parking supply.

Public or Private Provision

Increasing the amount of shared parking in downtown Kirkland can be done by public provision or by means of public-private partnerships. Public provision can be accomplished by building a parking structure on publically owned land, such as in Marina Park, Lake&Cental, or in Peter Kirk Park. Or the City could acquire land and build a parking structure, but that would essentially double the cost outlay.

The cost of building a public parking structure depends on the size and whether it is above or below ground. Table 1 illustrates this cost.

Table 1

Cost to build a parking garage on a site already owned by City

	Small Garage (200 spaces)	Large Garage (400 spaces)
Above Ground (@\$20,000 per space)	\$4,000,000	\$8,000,000
Below Ground (@\$40,000 per space)	\$8,000,000	\$16,000,000

The advantage of a city owned structure is a visible public commitment that would generate economic development within 1000 feet of the garage. It would provide parking for those properties within walking distance of the garage.

Perhaps a lower cost option would be to partner with a developer and buy or lease a floor of parking. This might cost \$30,000 per space and would cost \$3,000,000 for 100 spaces. The disadvantage might be that the spaces would be less visible to the public and might be better suited for employee parking than for customer parking. The advantage would be that the City could enter into three such partnerships in three different locations for the cost of one public structure.

Equitable Financing

The cost of adding new parking supply ought to be allocated to beneficiaries in an equitable manner. There are three major benefited groups: users, benefited properties and businesses within walking distance of the new supply, and the general public of Kirkland.

Users are those who park downtown who will find it easier to find parking near to where their destinations. This includes those who use the new parking facility and those who park on street or in other public parking structures. Income from the whole parking system downtown can be pledged to pay for parking revenue bonds to pay off some of the capital and operating costs of the parking system.

Properties and businesses within walking distance of a new parking facility will receive a special benefit, and should bear some of the cost. A local improvement district could be created to allocate some of the cost to property owners, and/or a business improvement area to allocate costs to businesses within walking distance. Income from a LID or BIA would be used to retire bonds to pay for some of the new parking supply.

The City of Kirkland benefits from a vital downtown, which is the center for city-wide events. General obligation bonds are a means of city-wide participation in financing infrastructure that benefits the City as a whole.

The appropriate share of the cost from these three sources depends on the location and parking pricing policy. A location in the center of retail activity, such as Lake&Central would benefit businesses more than a location beneath Lee Johnson field, which would benefit the general public more. A parking structure in Marina Park parking lot would more equally benefit businesses and the general public.

The City could choose to allocate a larger proportion of the cost to users by pricing on-street parking. In the long term, users need to be responsible for a larger proportion of the cost of the parking system than is now the case. Although pricing both on- and off-street parking would generate adequate revenue to finance new parking supply, lack of public acceptance of paying to park may dictate subsidy from these other sources, at least initially.

Recommendations

The PAB recommends the staff and Transportation Commission explore use of traffic impact fees as a source of funding for new parking supply downtown. New development is subject to traffic impact fees used to fund capital projects to mitigate traffic impacts caused by that development. The PAB requests inclusion of new parking supply in downtown in the City's Capital Improvement Program. Traffic impact fees used for additional parking supply would reduce cruising in the downtown looking for parking and thereby reduce traffic congestion in the downtown. Even though the new development may include adequate parking, mixed uses in the downtown makes it impossible to sort parking by site, and thereby would mitigate general traffic congestion in downtown.

However, the PAB does not recommend building a stand-alone parking garage at this time. There is not a well-located, city-owned site without complications where a free-standing parking garage can be built. And, revenue from the new parking structure would not be sufficient to

retire the entire cost, particularly if a site has to be acquired. There are only difficult sites with high costs.

The PAB recommends that the City develop a contingency financial plan for a public-private provision of new parking supply. This plan assumes working with a developer for sites, such as the Antique Mall or Peter Kirk Square shopping center. Both sites are well located to serve the downtown core businesses, and park users of Peter Kirk Park and Marina Park.

The initial parameters would be to purchase or lease 100 spaces at each of these locations when redeveloped at a capital cost to the City of \$2.5 to \$3 Million, each. If split equally between users, benefited properties, and the City, the capital cost is estimated at \$0.8 to \$1 Million. The annual cost at each location would be \$64,000 to \$80,000 for each of the three benefited groups, based on 5% for 20 years.

The expectation would be that the Antique Mall site would develop within the next three years, but there is no plan to redevelop the Peter Kirk Square site.

The contingency plan needs to make ready the financing of the public share of the joint development so as not to delay the development project. The financial plan might include the following:

- A commitment to price on-street parking to pledge for retirement of parking revenue bonds for a portion of the City's share.
- Establish a Local Improvement District containing properties within walking distance of the new public parking supply to be actuated when bonds are sold to finance a portion of the cost.
- Include new parking supply in the Capital Improvements Program to be financed from general revenue and/or traffic impact fee bonding.



CITY OF Kirkland
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ATTACHMENT 2

MEMORANDUM

To: David Ramsay, City Manager

From: Tami White, Parking Coordinator

Date: February 10, 2009

Subject: Pay Parking at Lakeshore Plaza and Lake & Central Parking Lots

Background

Early in 2008, Council directed the Parking Advisory Board (PAB) to meet with a group of stakeholders to discuss pricing in the parking lots at Lake & Central and Lakeshore Plaza. As a result a recommendation was presented to Council in August 2008, which included the changes of both lots from the current mixed-use of 2-HR free and 4-HR pay parking from 9:00 AM – 7:30 PM to full pay parking from 5:00 – 9:00 PM and 3-HR free during the day. The Lakeshore Plaza lot gains two each of handicapped and 30-minute parking stalls; all of which will remain free from 9:00 AM – 9:00 PM.

Communication Process

At the September PAB's meeting, it was decided to wait until spring to implement the parking. The PAB specifically chose March 16, 2009 as the start date. Since then staff has prepared an implementation plan to execute the launching of the new changes and it is well underway. This includes ordering and placement of four additional pay stations, design and ordering of new signage and parking lot re-striping. Another significant part of this process is communication. The key messages include the increased number of free parking during the day and pay parking after 5PM. A tagline of "3 for free; 4 for \$4" was part of theme. The plan encompasses print, web-based, email-based and media messaging as well as internal communications.

In addition to other outreach methods, staff recently visited over 93 merchants and businesses in downtown to inform them about the changes. They were particularly

pleased to learn that the pay stations accept pre-payment if a customer parks *prior* to 5:00 PM but needs to stay past the time when pay parking starts. Information about the city parking token program was also shared since many merchants had not heard about it before. The token program offers merchants the opportunity to pay for parking for their customer's next visit. Overall, the parking changes seem to be well received especially due to the consistency it brings to both parking lots.

Attached is the Parking Changes handout which was distributed to all business in the December Park Smart Update and during the merchant visits. The handout shows the new parking signs and the locations of the pay stations. The Lake & Central lot will have one additional pay station placed on the north end on the sidewalk on Lake Street. The Lakeshore Plaza lot will have three new pay stations, one on the northwest side near the Shark, and one each on the northeast and southeast sides in front of the businesses. All the pay stations will be located where lighting is adequate.

Additional Feedback

Some feedback from the merchants included:

- 1) A request to add signage at the entrances and exits of the parking lots to help remind people to pay.
- 2) Make available on the City's website a "Customer Response" to the changes (a place where businesses can direct customers to).
- 3) A request to change all the 2-HR parking on Park Lane (west) to 3-HR parking.

All these ideas will be discussed by the PAB.

Enforcement staff also expressed concern about the level of lighting in the parking lots. Since there will be more walking activity in the lots during hours of darkness, lighting improvements are being considered at the islands where currently there are no lamps. Up to three lamps will be added to each island for a total of nine. These improvements are planned for installation by this fall. Lighting will be paid for from funds previously designated for parking lot improvements.

Follow-up

In the weeks following the beginning of the new parking plan, staff and PAB members will be in the lots from time to time to assist customers with the new parking rules and use of the pay stations. In addition to our presence, enforcement will have an initial period where warnings will be given instead of tickets to allow people time to get acquainted with the new changes.

ORDINANCE _____

AN ORDINANCE OF THE CITY OF KIRKLAND RELATING TO DOWNTOWN EMPLOYEE PARKING AND AMENDING SECTION 12.45.260 OF THE KIRKLAND MUNICIPAL CODE.

The City Council of the City of Kirkland do ordain as follows:

Section 1. Section 12.45.260 of the Kirkland Municipal Code is hereby amended to read as follows:

12.45.260 Reporting of employee vehicles.

(a) Every employer or owner with premises located within the central business district shall provide to the city their own and their employees' names and vehicle license numbers of vehicle owned, operated, or controlled by each employee, employer or owner who comes to such premises.

(b) The information required by this section shall be sworn to and submitted at the same time as registration and application for a new business license occurs under Chapter 7.02 and updated within thirty days of hiring/termination of an employee, and each year thereafter at the same time as the business license is renewed in the manner prescribed and on forms provided by the city. Those partially exempt from the provisions of Chapter 7.02 shall report this information at the same time as required to file an application form as required in Chapter 7.02 and updated within thirty days of new hire/termination of an employee and annually thereafter as requested by the city.

(c) Every employer or owner with premises located within the central district not required to provide parking for their employees on such premises may request permit stickers which allow their employees to park at the Peter Kirk Municipal Garage, which permit must match license plate of the vehicle on which it is displayed and be properly displayed in a window of the vehicle but shall only be used while the employee is working.

(d) After September 25, 2007, every employer or owner with premises located within the central business district required to provide parking for their employees on such premises will not be eligible to request the permit stickers for their employees described in Subsection (d) of this section, will remain subject to the employee registration requirements of this section.

(e) Employees of employers or owners with premises located within the central business district that provide parking for their employees are subject to the downtown employee parking prohibitions of Section 12.45.250.

~~(e) It is a traffic infraction for any person to be in violation of the reporting requirements of this section. For any violation of this section, penalties shall be imposed as provided in Section 12.45.250.~~

Section 2. This ordinance shall be in force and effect five days from and after its passage by the Kirkland City Council and publication, as required by law.

Passed by majority vote of the Kirkland City Council in open meeting this _____ day of _____, 2009.

Signed in authentication thereof this _____ day of _____, 2008.

MAYOR

Attest:

City Clerk

Approved as to Form:

City Attorney
Ord\CBDparking

Kirkland Parking Choice Study
City of Kirkland
Parking Advisory Board
December 2008

Introduction and Research Approach

The Parking Advisory Board (PAB) has an interest understanding and anticipating the demand for different types of new parking facilities, and its effect on-street, existing parking surface parking lots and parking in adjacent neighborhoods, subject to spillover parking. The PAB was faced with assessing parking options not currently in place, and for which there is little, if any, historic data on demand and usage. The PAB wanted to consider a new public parking garage and vary location by means of time spent searching for a parking place and walking distance, while at the same time varying price of parking and overtime parking fines for the new garage and other parking options.

When there is no past information on how demand responds to variations in these variables, one typically must a) “guess”, b) use data from other places or locations and argue “by analogy”, or c) design and implement what is known as a “stated preference” survey to obtain demand data. Stated preference surveys show samples of relevant people (in this case, people who park in Kirkland) a number of (parking) scenarios and ask them to “state” what (parking) option they would be likely to choose in each scenario.

In the parking choice study, each scenario offers the survey respondents different parking options that they can choose. Because a person can only park in one place at any one point in time, we say that these are “discrete choices”, meaning that the options that can be chosen are mutually exclusive. Thus, a person can only choose one of them just as in a real parking situation. Each scenario offers survey respondents a choice of on-street parking, parking in a surface lot, parking in a new parking structure, free parking in a more distant location, such as an adjacent neighborhood, or not making the trip for which parking is required. Each person is asked to think about their last trip to downtown Kirkland involving a parking choice, and each scenario is referenced to that trip. That is, each survey respondent is asked to state what they most likely would have done on that previous trip if the parking options noted above were available at that time and as described in the scenario.

“As described” refers to a particular combination of parking fees, time required to search for and find a parking place, distance of the parking location from downtown Kirkland and overtime parking fines, if applicable. In a stated preference survey one assigns values to each of the variables (parking fees, search time, etc, to represent likely future variation in these variables. In the present case, we assigned the variables four discrete levels to represent variation in the options. The assigned levels to each variable are combined to create different parking options. For example, on-street parking has 4 values of parking fees, 4 values of search time, 4 values of distance from downtown Kirkland and 4 values of overtime parking fines. This means that there are $4 \times 4 \times 4 \times 4$ (256) distinct

combinations of the variables representing different on-street parking options. Similarly, combinations of variable levels represent possible parking structures, and possible surface parking lots. Technically, each option has a certain number of possible combinations; all possible combinations of the option combinations represent all possible parking options represented by the set of variables and levels. The latter is a very large number representing many thousands (perhaps millions) of possibilities. Because there are so many possibilities, one cannot study all of them in any one survey (or even in many surveys), so one needs to sample from all the possibilities. The sampling method used in stated preference surveys is called an “experimental design”, which is the method used to select particular combinations of parking options. Each of the combinations in the sample is called a “scenario”. The sampling method constructs the scenarios in such a way to measure the impacts of all the variables on the choices of the people who participate in the survey. As earlier noted, a person can only choose one parking option at a time, so the choices that people make in each scenario measure demand.

The sampling approach that we used in this project is based on a paper by J. Louviere and G. Woodworth in the *Journal of Marketing Research* (1983); a more recent review of stated preference surveys is *Stated Choice Methods: Analysis and Applications* by J. Louviere, D. Hensher and J. Swait (Cambridge U Press, 2000). We sampled 256 scenarios from the thousands possible in such a way that we could measure the impacts of all the variables representing all the parking options on choices. Naturally, 256 scenarios are more than any one person can consider, so we randomly divided the sample of 256 scenarios into 32 versions of 8 scenarios each. Each person who participated in the survey was randomly assigned to one of the 32 versions. We also added questions to the survey to ask why people parked in downtown Kirkland, the length of time that they parked and several demographic details (age, gender, work status and household income).

The survey was programmed in survey software to allow it to be administered on the internet. Dr. Jordan Louviere, Executive Director, and Edward Wei, Research Manager, Centre for the Study of Choice (CenSoC), University of Technology, Sydney, provided technical guidance. A sample of Kirkland residents was recruited with the assistance of Ken Dueker. Each recruit was randomly assigned to one survey version, which resulted in a sample of 89 relevant individuals, or about three people per scenario (2.78). The choices of the survey respondents were analyzed using choice modeling software, and a choice model was developed to allow one to make “what if” predictions of choices. That is, the software allows analysts to change any variable of any of the parking options and predict the proportion of people who will choose each option.

Parking Choice Survey

Nearly 100 Kirkland residents participated in the parking choice survey. Each resident responded to eight parking scenarios that asked them to choose among the following options: a) On-Street, b) Surface Parking Lot, c) New Downtown Parking Garage, d) Free, but more distant, on-street space, or e) Choice of None of the options/would not make the trip. Each scenario systematically varied levels of Price, Walk Distance, Search

Time, Time Limit, and Overtime Parking Fine for each choice option in order to separately determine their impacts of choices. Table 1 shows the levels for each of the attributes of parking options.

The intent was to administer the survey to owners of vehicles observed parking in the downtown. City staff collected license plate numbers of vehicles parking on street and in City owned lots, during representative week days, evenings and weekends. Names and addresses of owners were obtained from the State DMV and they were sent a letter asking them to visit a website to take the stated preference survey. Unfortunately, the task of going to a computer and keying in the URL resulted in a low response rate. As a fall back, neighborhood association members were sent a message asking them to take the parking survey. Using e-mail, we were able to provide a link that they could click to transfer to the website and take the survey. This improved response, but included persons who may not regularly, visit and park downtown. This may result in a larger proportion of response to the choice option that they will not make the trip and /or go elsewhere. Thus, the diversion of persons from downtown to other locations may be overstated, when the price, walk distance, or search time is greater than what they are used to.

Table 1
The levels of Price/Fees, Walk Distance, Search Time, Time Limit, and Overtime Parking Fine

Choice	On-Street	Surface Lot	New Garage	Free on-street (farther)	None/no trip
Price	Free \$0.50 per hr \$1 per hour \$2 per hour	Free \$0.50 per hr \$1 per hour \$2 per hour	Free \$0.50 per hr \$1 per hour \$2 per hour	Free	
Walk Distance	0-400 feet (<1 blk) 400-800 ft (1-2 blks) 800-1200 ft (2-3 blks) >1200 ft (>3 blks)	0-400 feet (<1 blk) 400-800 ft (1-2 blks) 800-1200 ft (2-3 blks) >1200 ft (> 3 blks)	0-400 feet (<1 blk) 400-800 ft (1-2 blks) 800-1200 ft (2-3 blks) >1200 ft (> 3 blks)	>1200 ft (>3 blks)	
Search Time	0-1 minutes 1-2 min. 2-4 min. 4-6 min.	0-1 minutes 1-2 min. 2-4 min. 4-6 min.	0-1 minutes 1-2 min. 2-4 min. 4-6 min.	0-1 mins 1-2 min. 2-4 min. 4-6 min.	
Time Limit	2 hr 3 hr 4 hr unlimited	2 hr 3 hr 4 hr unlimited	2 hr 3 hr 4 hr unlimited	2 hr 3 hr 4 hr unlimited	
Overtime Parking Fine	\$20 \$30 \$40 \$50	\$20 \$30 \$40 \$50	\$20 \$30 \$40 \$50	\$20 \$30 \$40 \$50	

Findings from the analysis of respondent choices

The data are analyzed by isolating the effect of levels of attributes, such as parking price, search time, and walk distance, and seeing how choice of parking location varies when controlling for the level of an attribute.

On-Street Parking Results

Summary results for on-street parking are shown in Chart 1. Results of systematically varying attribute levels of On-Street Parking influence the proportion of choice for other parking options. For example, an increase of parking charges from free to \$2 per hour reduces the proportion choosing on-street parking while increasing the choice of other options. A small increase in parking fees from free to \$0.50 per hour has a large impact on choices.

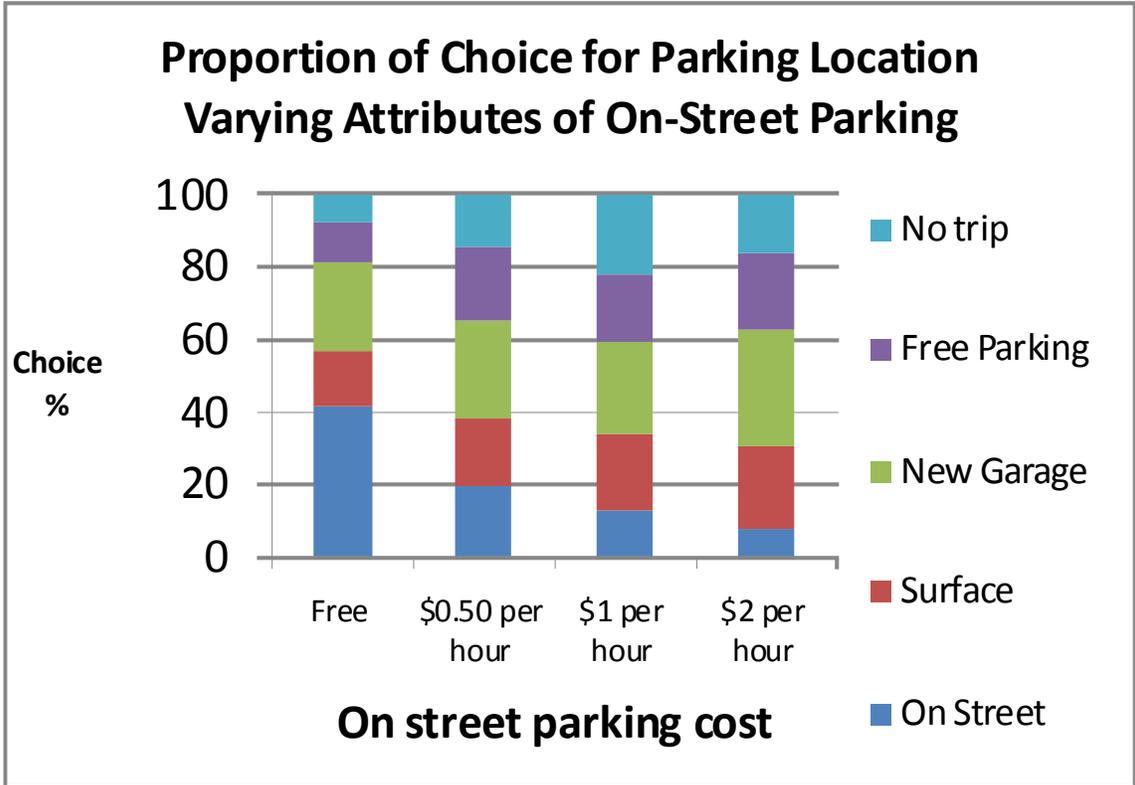


Chart 1. Choice of parking location while controlling for cost of on-street parking

Chart 2 shows that a 1-2 block increase in walking distance for on-street parking also has a large impact, but the impact is much less than for the change in fees.

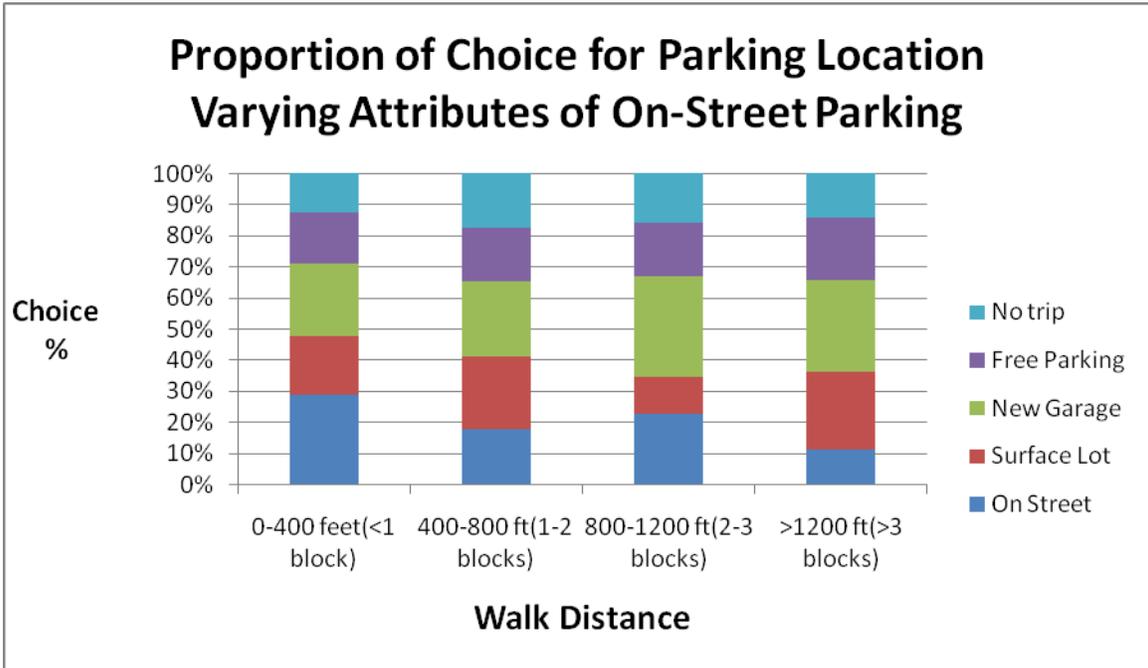


Chart 2. Choice of parking location while controlling for on-street walk distance

Chart 3 shows that an increase of search time from 0-1 minutes to 1-2 minutes for on-street parking has little impact; but search times above 2 minutes have an impact almost as large as increases in walking distance.

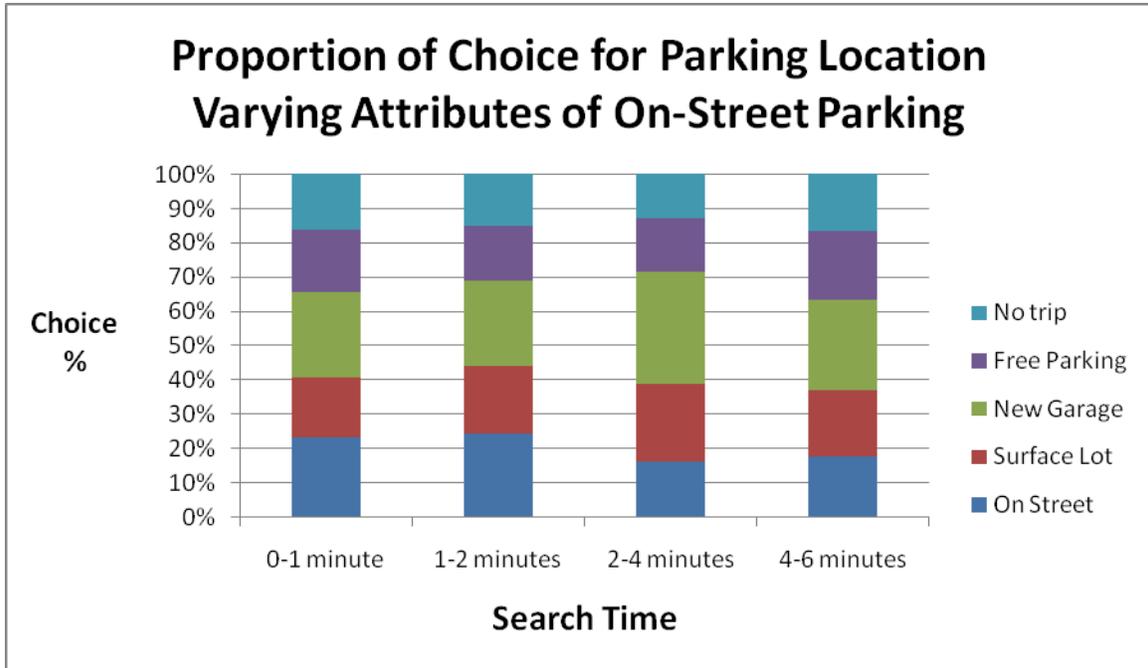


Chart 3. Choice of parking location while controlling for on-street search time

Chart 4 shows that a time limit of two hours discourages choice of on-street parking, much more than longer time limits.

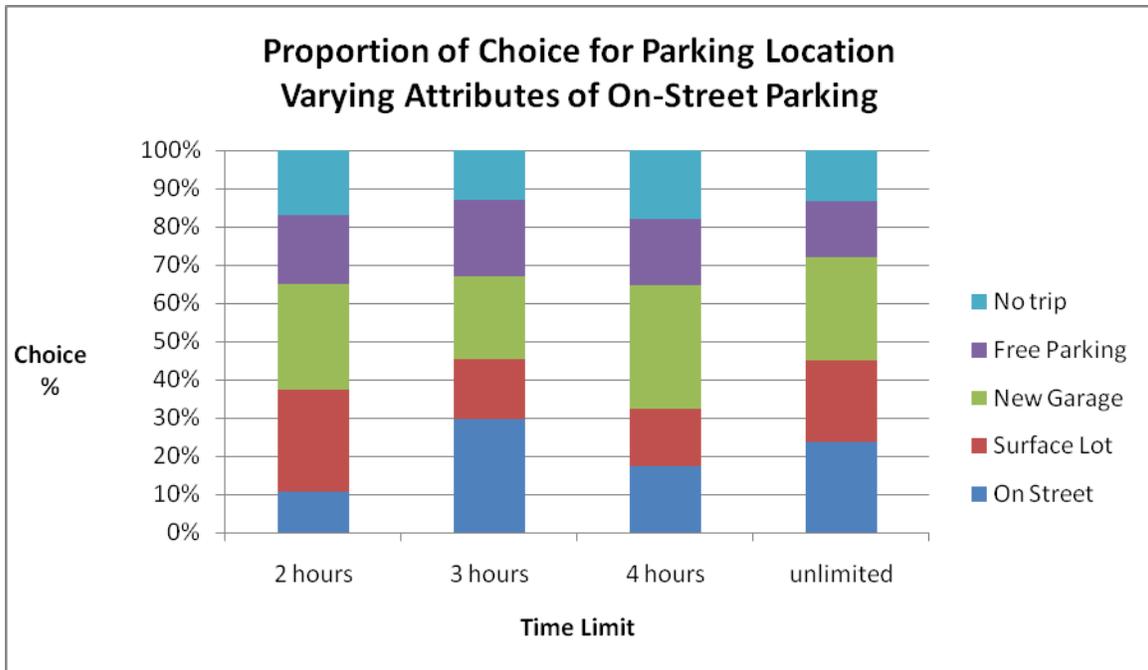


Chart 4. Choice of parking location while controlling for on-street time li

Because of the small sample, the only reliable demographic differences in choices are gender differences. Chart 5 shows gender results for price for parking on street. Significant differences in choices are associated with level of parking fees. Similarly, Charts 6 and 7 show the effect of time limits and walking distances. Females were less likely to choose on-street parking, new garages or free parking than males, and were more likely to choose surface lots or not travel than males. Females were less sensitive to fees, search times, walking distances and overtime fines, but more sensitive to time limits.

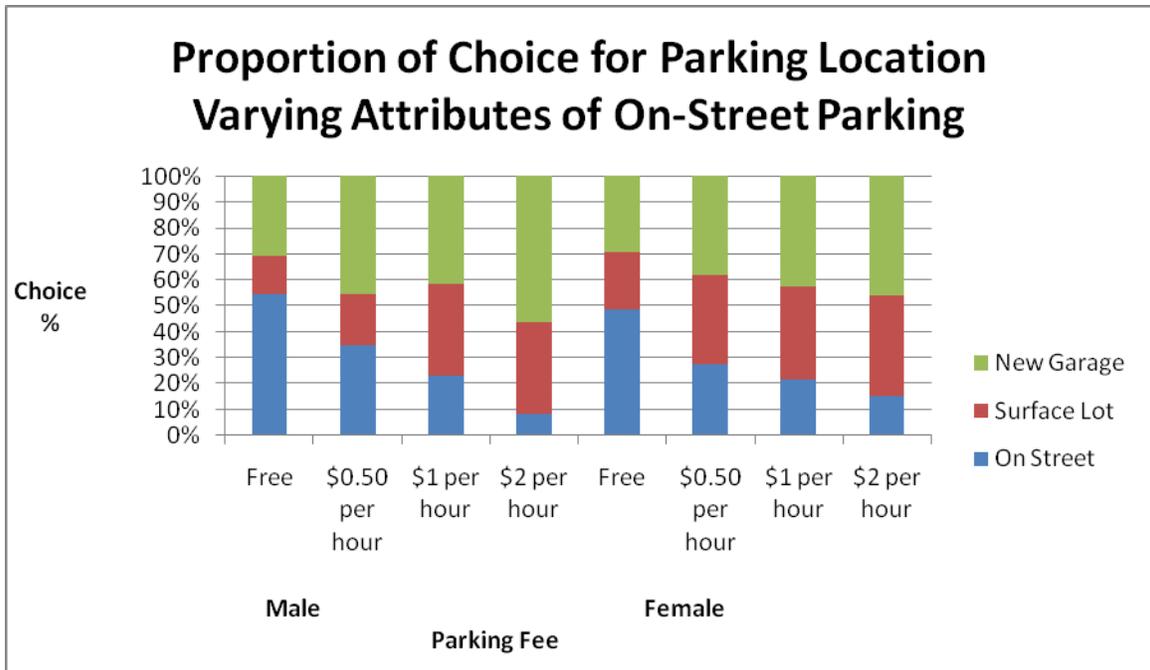


Chart 5 Gender differences in choice of parking location while controlling for the cost of on-street parking

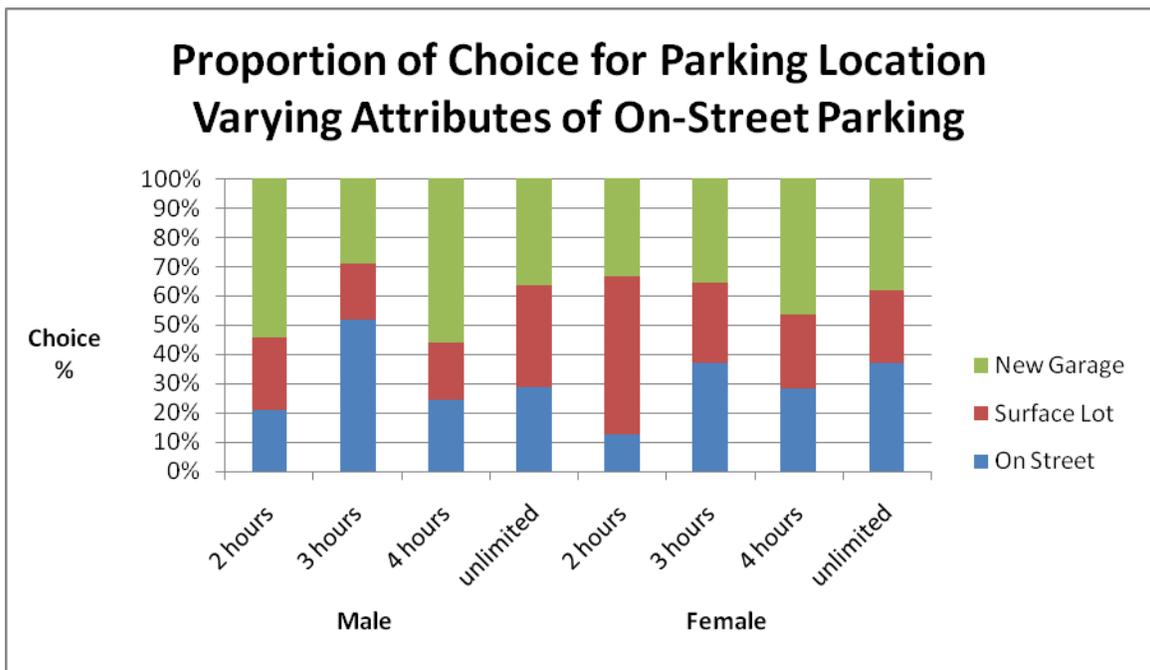


Chart 6. Gender differences in choice of parking location while controlling for the on-street time limit

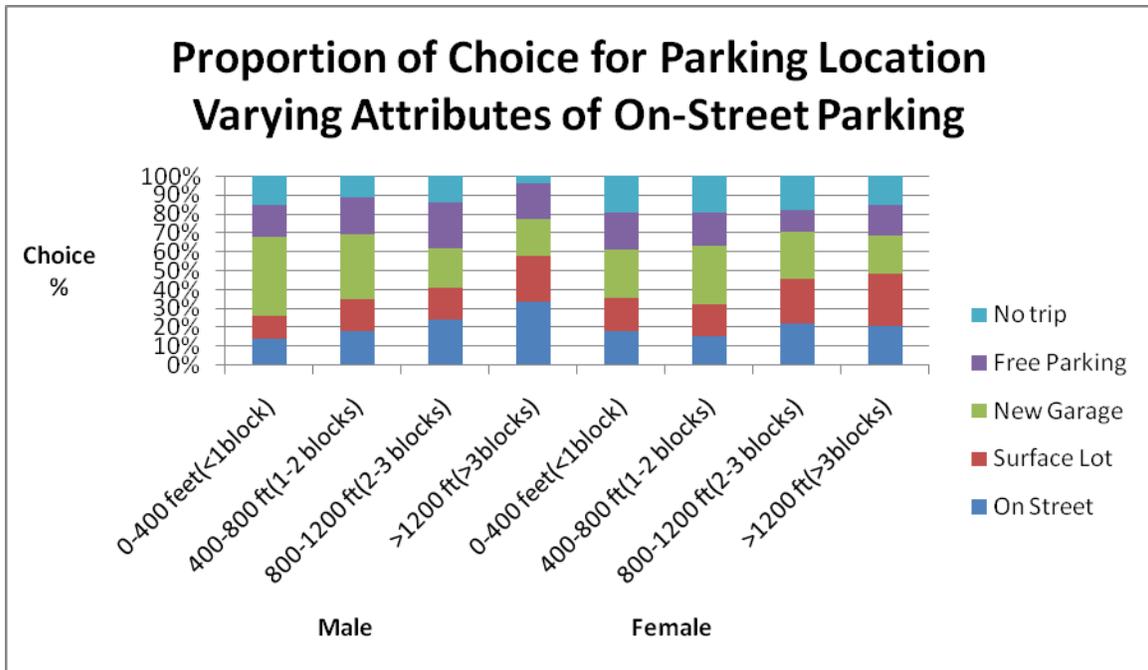


Chart 7. Gender differences in choice of parking location while controlling for the on-street walking distance

New Parking Garage

This section reports the results of systematically varying the level of attributes for a new parking garage upon the choice of other parking options. Chart 8 shows there is high sensitivity to parking fees, and Charts 9 and 10 show a somewhat less but still significant sensitivity to time limits and walking distances over 800 feet. There is much less sensitivity to search times and overtime fines (not shown).

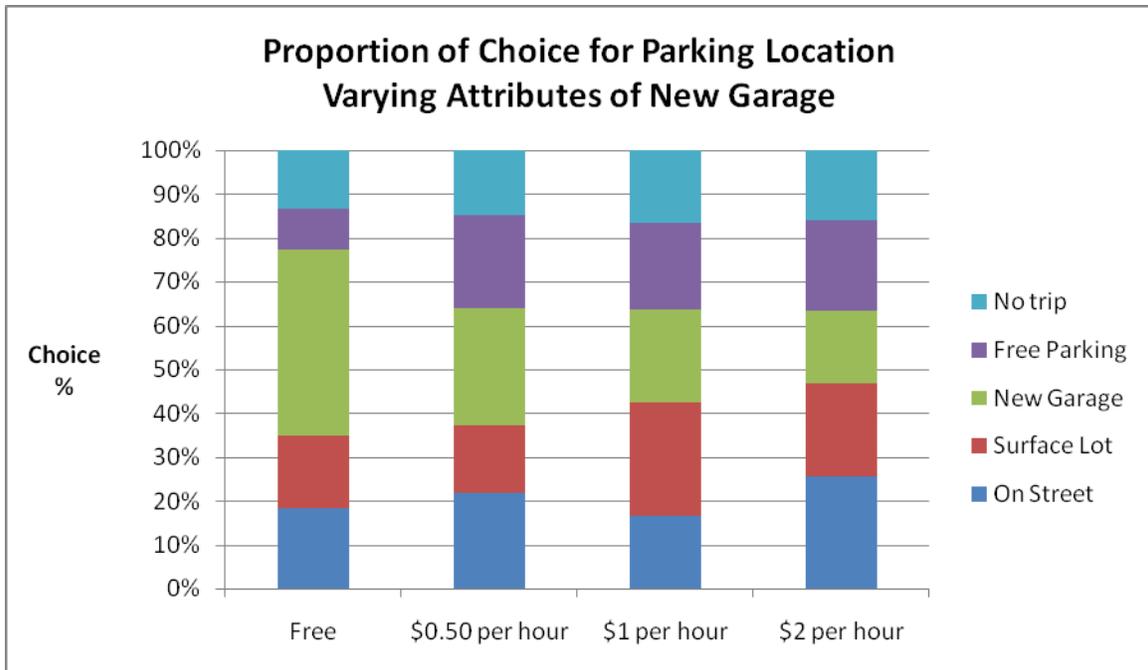


Chart 8. Choice of parking location while controlling for the cost of parking in a new garage

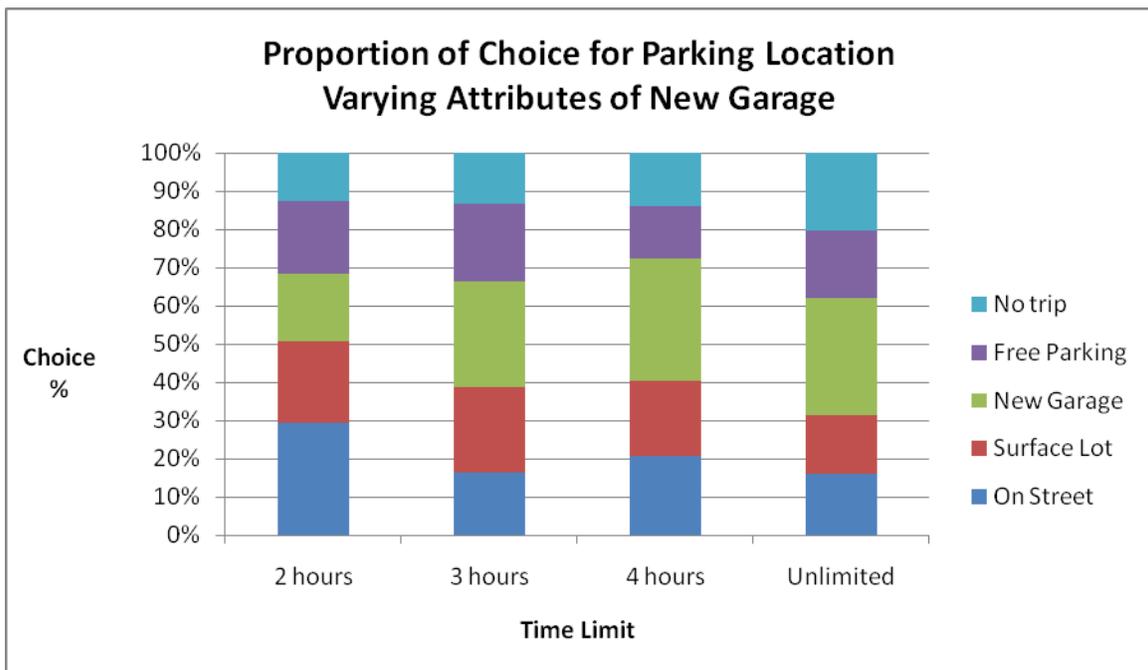


Chart 9. Choice of parking location while controlling for time limit in garage

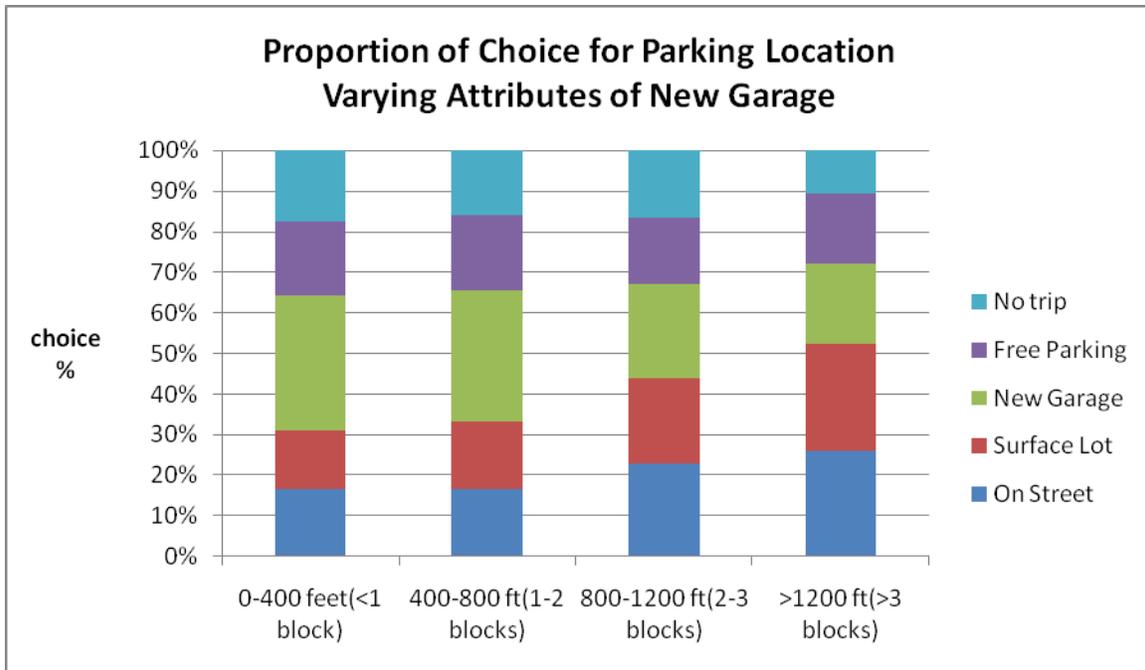


Chart 10. Choice of parking location while controlling for walk distance to new garage

There are gender differences for a new parking garage. Males are much more sensitive to parking fees and walking distances than females. Males are more likely to choose a parking garage than are females.

Groups with Similar Preferences

Nearly half of the respondents have similar preferences toward the parking attributes, and they are or behave like retired persons of high income, while the other half of the respondents have different preferences. This second group is predominantly employed persons with lower income. Since respondents were drawn from participants in neighborhood associations they are not representative of Kirkland's population. They tend to be older than the general population.

Members of Group 2 have a much stronger preference for free on-street parking than do members of group 1. Group 2 has a stronger negative preference for time limits for on-street parking than do members of group 1. Although both groups prefer a short walk distance to on-street parking, older members of group 1 have a stronger preference for a short walk. Group 2 has a stronger preference for a short search time for on-street parking, than do members of Group 1.

Both groups have a strong preference for free off-street parking in a new parking garage, though group 1 is more willing to pay to park than are members of group 2. Both groups dislike time limits to park in a new parking garage. Both groups prefer a short walk distance to park in a new parking garage. Group 2 is more willing to spend time searching for space in a new parking garage than are members of group 1. Fines,

particularly high fine levels are strongly disliked by members of group 2 when choosing a new parking garage. Group 1 members are largely indifferent to fines and their level when parking in a new parking garage.

Generally, members of group1 are more interested in convenience than price, while members of group 2 are quite price sensitive and are more willing to walk than to pay to park.

Simulation Results

The purpose of this section is to estimate the preferences and choices of groups of respondents, and to estimate the choices for parking pricing options and for location of the new parking garage.

The overall preference for parking location in the choice experiment is shown in Table 2.

Table 2
Parking Preference for All Respondents

Parking Choice	Preference
On-Street Parking	17%
Surface Lot	29%
New Downtown Parking Garage	38%
Free, but distant parking	15%

Table 3 shows the parking preference for one of the larger subsets of respondents, those who are male, 60 years of age or older, income between \$45,000 to \$100,000 per year, and whose usual downtown trip purpose is eat drink. Table 3 also shows the preference for younger males (less than 35 years of age)

Table 3
Parking Preference for Older and Younger Males

Parking Choice	Preference of Older Males	Preference of Younger Males
On-Street Parking	7%	26%
Surface Lot	36%	18%
New Downtown Parking Garage	50%	30%
Free, but distant parking	7%	16%

The older group has a greater preference for off-street parking and less preference for on-street parking or free but distant parking than do younger males or all respondents.

Table 4 compares two parking pricing policies. One policy is to price off-street parking and not on-street parking. The other policy is to price both on- and off-street parking.

Table 4
Most Preferred Parking Option

Parking Option	Free On-Street, Pay-to-Park Off-Street	Pay-to-Park On-Street, Pay-to-Park Off-Street
On-Street	56%	16%
Surface Parking Lot	9%	22%
New Parking Garage	20%	23%
Free, but Distant Parking	15%	38%

The most preferred option is on-street parking if it is free on-street, while pricing parking in off-street locations. However, if parking were to be priced both on- and off-street there will likely be a substantial spillover to nearby neighborhoods.

Table 5 compares a downtown core parking garage location (like Lake & Central, or Marina Park) to a peripheral one (like under Lee Johnson Field).

Table 5
Most Preferred Parking Option

Parking Option	Short Walk Distance to New Parking Garage	Long Walk Distance to New Parking Garage
On-Street Parking with a moderate or long search time	11%	28%
Surface Parking Lot with a moderate or long search time	22%	24%
New Parking Garage	36%	29%
Free, but Distant Parking	31%	19%

This comparison shows that a more distant location for a new parking garage will reduce demand for it while increasing the preference for on-street parking even when it involves a moderate to long search time.

Table 6 also compares a downtown core parking garage location (like Lake & Central, or Marina Park) to a peripheral one (like under Lee Johnson Field), but with a short search time for on-street parking and for surface parking lots.

Table 6
Most Preferred Parking Option

Parking Option	Short Walk Distance to New Parking Garage	Long Walk Distance to New Parking Garage
On-Street Parking with a short search time	28%	27%
Surface Parking Lot with a short search time	17%	32%
New Parking Garage	31%	19%
Free, but Distant Parking	24%	22%

Shorter search times for existing downtown core on- and off-street parking dampens the demand for a new parking garage in either location, but particularly at a peripheral location. Shorter search times are likely early in the day while longer search times are likely in the evening peak period or on nice weather days when the general demand for parking downtown is at its highest.

Willingness to Pay

Appendix A shows how willingness to pay to save walk distance and search time for parking is estimating from the study results. The analysis estimates that a 1200-foot walk is equal to a parking cost of \$.095 while a search time of five minutes is equal to a parking cost of \$0.45. Since walking 1200 feet takes nearly five minutes the two-fold difference in parking cost suggests that people find walking 1200 feet twice as onerous as a search time of 5 minutes.

Conclusions

The stated preference survey method provided a rich set of data on parking preferences that provides insights on pricing, regulatory measures, and the prospect of a new parking garage. Unfortunately, the small sample size and questions about its representativeness limit the analysis of demographic groups. Nevertheless, insights were gained about consequences of charging for parking, time limits, and levels of overtime parking fines.

Some principal findings are that charging for on-street parking will cause spillover into neighborhoods and cause some persons to go to destinations other than downtown. However, women and older persons are less sensitive to parking charges and seem more willing to pay for convenience and for parking availability, while younger persons are more sensitive to parking charges and are more willing to walk and avoid parking charges.

Similarly, free parking in a new parking garage is highly desired. Women are less likely to park in a parking garage than are men. The location of a new parking garage is quite important. A long walk distance will detract from its desirability.

Appendix A Willingness to Pay Utilities

Chart A-1 displays a cross tabulation of the most and least preferred option against price for on-street parking. Table A-1 displays the utilities of these options. The estimate of utilities are constructed from the $\text{Ln}(\sqrt{\text{most/least}})$. Similarly, utilities were calculated for most and least preferred option against price of surface lot and new garage parking locations. The utilities were regressed and the slope of the linear regression is 0.66, which is interpreted as the willingness to pay for the difference of 2 hours.

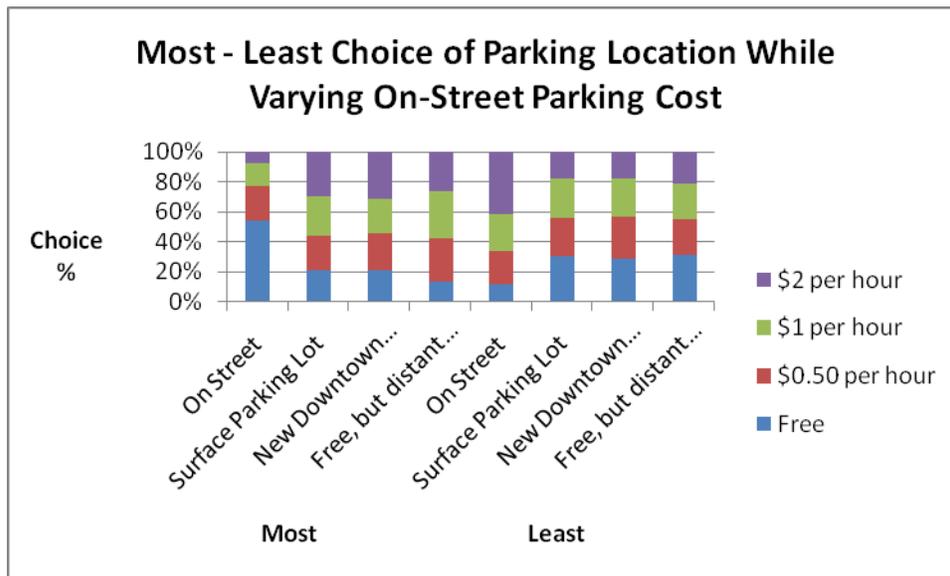


Chart A-1. Most – Least choice of parking location while controlling for on-street parking cost

**Table A-1
Utilities for Most – Least Choice of Parking Location
While Controlling for On-Street Parking Cost**

On Street	Surface Parking Lot	New Downtown Parking Garage	Free, but distant Parking
0.59	-0.24	-0.17	-0.17
-0.17	-0.12	-0.09	0.35
-0.43	-0.07	-0.05	0.41
-1.03	0.18	0.27	0.37

Chart A-2 displays the cross tabulation of the most and least preferred option while controlling for on-street walk distance, and the Chart A-3 display controls for on-street search time. Utilities were calculated from the most and least proportions and the difference in utilities for walk distance and search time minimum and maximum levels are divided by the willingness to pay estimate of 0.66 to produce a willingness to pay for

a 1200 foot walk of \$.095 for on-street parkers. The willingness to pay for 5 minutes of search time is \$0.45 for on-street. Since walking 1200 feet take nearly five minutes the two-fold difference in willingness to pay says people find walking 1200 feet twice as onerous as a search time of 5 minutes.

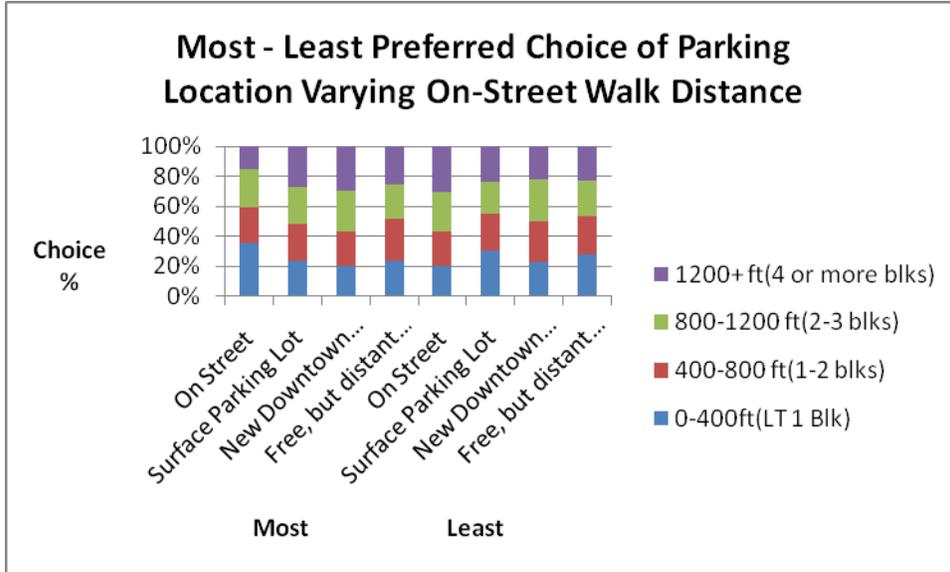


Chart A-2 Most – Least preferred choice of parking location while controlling for on-street walk distance

Chart A-3 Most – Least preferred choice of parking location while controlling for on-street search time

