

RIGHT SIZE PARKING MODEL CODE

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Report prepared by VIA Architecture
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INTRODUCTION

This document presents strategies and model parking code designed to enable right size parking and a priced parking environment in multifamily developments. It is one component of the King County Right Size Parking (RSP) project, which has the overall goal of optimizing parking supply in multifamily buildings. RSP is funded by a three-year grant from the Federal Highway Administration's Value Pricing Pilot Program.

The purpose of the model code is to provide a resource for municipalities that are interested in implementing code changes to help right-size local parking supply. The model code draws from several other components of the RSP project, including best practices research, the RSP Technical Policy Memo, multifamily utilization surveys, parking code gap analysis, the RSP calculator, and stakeholder input.¹

The primary recommendation of this document is for a market-based approach to parking regulation in multifamily buildings. This approach involves removal of parking minimum requirements, along with coordinated strategies to mitigate potential neighborhood impacts. Recognizing that a market-based approach may not be feasible in all communities, the document also provides detailed recommendations for a context-based approach, in which minimums are set based on a comprehensive assessment of local context and project-specific conditions.

Parking regulations that allow for the production of parking that is balanced with actual parking demand can help promote community goals and create a rational market for parking in which parking can be appropriately priced. Previous RSP research has found that parking is over-supplied by an average of 40 percent in multifamily developments across urban and suburban King County. The oversupply of parking can reduce housing affordability, degrade urban design, reduce transit efficiency, increase vehicle-miles traveled and congestion, and distort the market for priced parking. Conversely, providing too little parking can pose the risk of negative consequences for real estate marketability and neighborhood impacts.

¹ See <http://metro.kingcounty.gov/up/projects/right-size-parking/> for RSP reports and documents, and <http://www.rightsizeparking.org/> for the RSP Multifamily Residential Parking Calculator

In many King County municipalities parking codes may not be up to date with changes in land use, demographics and consumer preferences that have already reduced – and could potentially further reduce – the demand for parking. In some municipalities parking minimums do not take into account that demand for parking varies based on unit type, occupant income, proximity to transit, or other contextual factors.

This document is intended to provide municipalities with a diverse set of recommendations for strategies and code that respond to the wide variety of conditions that influence parking demand and utilization in multifamily buildings. It presents a suite of model code options meant to offer a menu of choices, and is not intended to be adopted wholesale. Communities throughout King County have widely different contexts, needs, and structures, and depending on the municipality, applicability of the recommended strategies and code will vary. Municipalities should solicit input from both public and private sector stakeholders when considering adoption of these recommendations.



Why Right Size Parking Matters

The overarching goal of “right sizing” parking is to foster livable communities by optimizing the allocation of parking resources. The amount of parking is optimized—i.e. right sized—when it strikes a balance between supply and demand. In King County today, the most common scenario is that new multifamily developments provide too much parking, which creates impediments to achieving a wide range of community goals. Although less common, the provision of too little parking is also a concern because it can result in challenges for real estate marketability or neighborhood on-street parking. In either case, a critical factor in achieving optimized parking is pricing, which is a primary target for RSP strategies. The desire to achieve right sized parking is primarily motivated by its potential to promote the following three positive outcomes:

It is important to emphasize that removing parking minimums does not mean that no parking will be built.

Affordable Housing

Parking is expensive to construct, costing as much as \$40,000 per stall or more when built underground. When more parking is built than will actually be utilized, it is a wasted construction expense that needlessly raises the cost of producing housing, and that cost is passed on to housing consumers. Under typical market conditions, the cost of building parking cannot be recovered through separated rent or through the sale of the parking stalls, largely because there is typically an oversupply of cheap or free on-street alternatives. Thus the cost of parking must be absorbed into the rent or sales prices of the housing, which drives up housing costs, even for those who do not own a car and have no need for parking.

Economic Development

Excessive requirements for parking can create significant financial or logistical barriers to multifamily development, which is an essential ingredient of economic development in municipalities throughout King County. The expense of building required parking can put such a burden on a project’s pro-forma that it becomes financially infeasible. In marginal real estate markets, this can be particularly encumbering. Parking also consumes large amounts of space, and in some cases it simply isn’t possible to physically fit enough parking on a given development site to

meet code requirements. In any case, space dedicated to car storage often takes away from space that could otherwise go to housing and commercial uses, both of which offer far greater economic development benefits than does parking.

Transportation Choices

By minimizing the over-allocation of resources to cars, right sizing parking supports alternatives to travel by single-occupant vehicle (SOV). The provision of parking in multifamily developments typically has negative impacts on walkability, urban form, and architecture, thereby compromising the efficiency and convenience of alternative modes, as well as livability overall. Less parking in an urban environment fosters the creation of walkable, bikeable, transit-supportive neighborhoods that enhance the utilization, service levels, and efficiency of transit. As is widely recognized, use of alternatives to SOVs reduces traffic congestion, vehicle-miles traveled (VMT), and associated environmental impacts, including greenhouse gas emissions. At the same time, “active transportation” can improve the health of residents.

The goals supported by RSP described above are broadly shared among municipalities throughout King County. The Comprehensive Plans of King County and its cities consistently include goals, policies, and actions supporting smart growth that are in complete alignment with the desired outcomes fostered by RSP. Lastly, the factors motivating RSP are also validated and reinforced by a wide range of economic, demographic, and cultural trends, including:

- Unmet consumer demand for walkable, transit-rich neighborhoods²
- Ongoing regional transit investments, including Sound Transit LINK light rail and King County Metro RapidRide
- An aging population that will continue to raise the numbers of people who don't drive³
- Decrease in driving and car ownership among younger people (Gen Y, Millennials)⁴
- Leveling off or decline of per capita VMTs nationwide and locally over the past decade⁵
- Rising immigrant populations in King County that are likely to increase demand for transit and reduce car ownership and driving⁶
- Increasing recognition of the true costs of auto transportation, as demonstrated by the Center for Neighborhood Technology's Housing+Transportation Affordability Index, for example⁷
- Escalating affordable housing shortage across much of King County, which makes car-free living a more attractive option for reducing household expenses⁸
- Rising construction costs for multifamily housing that make it more desirable to reduce those costs by not overbuilding parking⁹

2 <http://www.brookings.edu/research/articles/2010/11/real-estate-leinberger> Accessed November 15, 2013.

3 <http://www.ssti.us/wp/wp-content/uploads/2012/02/The-Case-for-Moderate-Growth-in-VMT-2006-Final.pdf> Accessed November 15, 2013.

4 <http://www.frontiergroup.org/reports/fg/transportation-and-new-generation> Accessed November 15, 2013.

5 <http://daily.sightline.org/2011/06/08/where-are-my-cars-king-county> Accessed November 15, 2013.

6 http://transportationfortomorrow.com/final_report/pdf/volume_3/technical_issue_papers/paper4a_03.pdf Accessed November 15, 2013.

7 <http://www.cnt.org/repository/pwfpf.pdf> Accessed November 15, 2013.

8 <http://your.kingcounty.gov/budget/agr/agr07/07AGRCh2all.pdf> Accessed November 15, 2013.

9 <http://multifamilyexecutive.com/construction/no-relief.aspx> Accessed November 15, 2013.

Two Approaches to Parking Regulation

This document addresses two approaches to parking regulation: **market-based** and **context-based**.

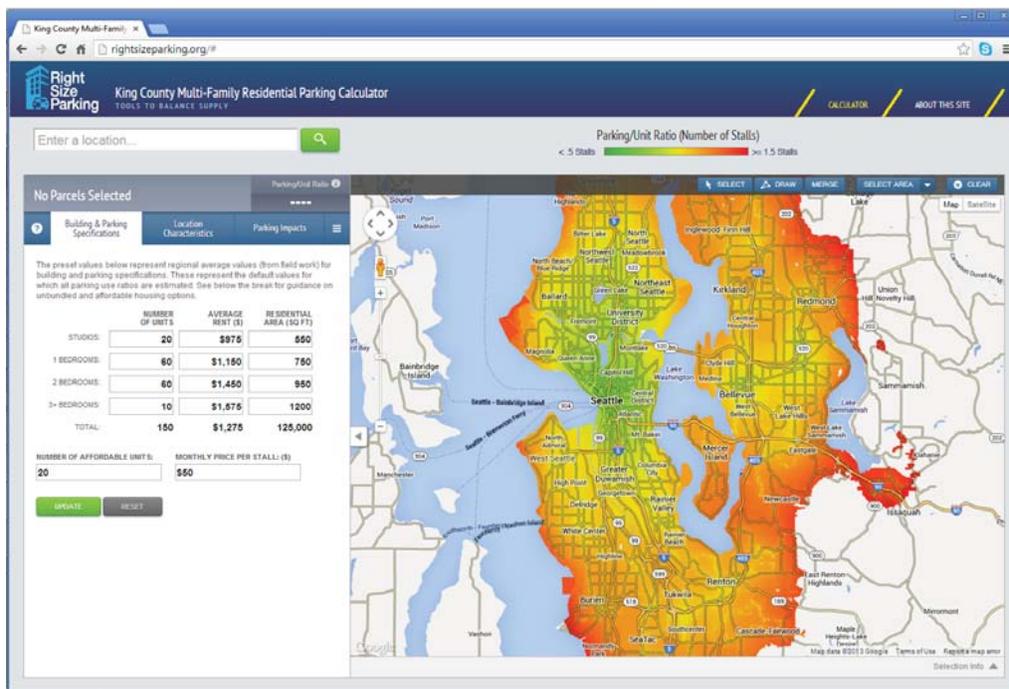
In a market-based approach, parking requirements are removed and the amount of parking supplied in multifamily projects is determined by the developer's assessment of the amount necessary to make a project marketable. In a context-based approach, the site-specific locational context (e.g., surrounding land uses, transit service, walkability, etc.) is taken into account in order to set base minimums. The base minimums are then further refined with site-specific adjustments intended to align supply with demand as closely as possible.

The market-based approach is recommended for most efficiently achieving RSP outcomes. The fundamental reason is that the market-based approach eliminates the possibility of a scenario in which minimums set higher than demand cause needless overbuilding of parking. A market-based strategy is most successful when bolstered with on-street parking management, which is not common in King County municipalities. Accordingly, this report also recommends on-street parking management strategies that can be implemented in conjunction with a market-based approach.

It is important to emphasize that removing parking minimums for a market-based approach does not mean that no parking will be built. In most areas of King County, market conditions are such that off-street parking is a necessary ingredient for financeable multifamily projects, and developers can be expected to build parking whether or not code requires it. For example, the Ballard Urban Center in Seattle has no minimum parking requirements, yet all of the recent large-scale multifamily developments have included parking anyway, typically in the range of 1 to 1.5 stalls per unit. Overall, the flexibility of a market-based approach enables the correction of distorted parking markets, helping to create an environment in which parking can be rationally priced, and parking is not subsidized by housing prices.

Although a market-based approach is the first recommendation of this report, it may not be feasible in some municipalities. Requirements for off-street parking are deeply entrenched in most land use codes, and removing requirements completely is likely to be challenging, both procedurally and politically. For these reasons, this document also provides model code for a context-based approach. If well-executed, this approach sets minimums at a "sweet spot" that doesn't cause overbuilding, reduces the risk to the surrounding community caused by parking spillover, and minimizes the need for on-street parking management. Most municipalities already have code that incorporates some features of a context-based approach. The model code provided in this document is intended to provide examples of the full range of possible context-based considerations. It is not meant to be a prescriptive recommendation, but rather a menu of options that allows planners to pick and choose the flavors of code that fit best with their built environment and political climate.

The RSP Multi-Family Residential Parking Calculator



The RSP Multi-Family Residential Parking Calculator¹⁰ is designed to estimate parking demand at a given location based on a set of context-based variables. As such, the RSP calculator could be used as a tool for municipalities to help determine context-based minimums for development projects on a case-by-case basis. The RSP Calculator and the data behind it could also provide valuable input for determining context-based adjustments to minimums, as was done for several of the model code metrics in Table 1, see Section 3.2.

However, the RSP Calculator has limitations. For the Calculator to remain current, parking utilization and land use data would have to be updated regularly to reflect ongoing changes in the built environment. Furthermore, the model results were not validated against independent observations, and it can only provide “average” estimates of demand across King County. The tool may have particular challenges producing reliable results in highly urbanized areas, or in suburban areas with unique transit or demographic characteristics.

Currently there is no established program or funding to keep the RSP Calculator up to date, but sources of future funding to maintain the RSP Calculator are being investigated. For now, this report recommends that municipalities use the RSP Calculator as a reference to evaluate their existing regulations, and to help optimize their minimums.

The RSP Multi-Family Residential Parking Calculator is designed to estimate parking demand at a given location based on a set of context-based variables.

¹⁰ The RSP King County Multi-Family Residential Parking Calculator is online here: <http://www.rightsizeparking.org/>



MARKET-BASED APPROACH

As noted in the Introduction, removing or dramatically reducing parking minimums is our recommended approach for most efficiently achieving RSP goals and creating a market where parking pricing is more common. Developers also tend to prefer a market-based approach because it reduces planning complexity and risk, and allows them to fine tune their projects based on their own financial and market demand analyses.¹¹ It should also be stressed that removing parking requirements does not mandate that no parking can be built, and in most cases market conditions are such that developers will build parking in their projects even if they are not required to do so.

However, an absence of requirements for parking can create a level of uncertainty over parking resources that may be undesirable to some community members. The most common concern is that projects won't be built with enough parking if it isn't mandated, in which case surrounding residents and businesses may be subjected to the negative impacts of parking spillover. To address the increased risk to surrounding communities that could be caused by deregulating off-street parking, a market-based approach often requires on-street parking management and other strategies to prevent and mitigate potential negative impacts, as discussed below.

2.1 Pricing

A market-based approach helps create a rational market for parking for two main reasons. First, when parking minimums require developers to build more parking than the market demands, the excess supply puts downward pressure on the explicit price that can be charged for parking and creates a distorted parking market.¹² In turn, this oversupply results in a market failure in which consumers are not receiving pricing signals that reflect true costs, and ultimately leads to an overproduction of parking that

¹¹ Based on multiple stakeholder meetings and one-on-one interviews with developers.

¹² For a detailed discussion see the RSP "Pricing Parking in Multifamily Projects" technical memo, which will be available online here: <http://metro.kingcounty.gov/up/projects/right-size-parking/>

compromises RSP goals.¹³ The first step in correcting this distorted parking market is to remove the excessive parking requirements that are causing it.

Second, on-street parking management should be implemented. The markets for parking in multifamily buildings and for nearby on-street parking are linked, since people have the choice to park in either place. For example, if there is plentiful free on-street parking, owners will not be able to charge much for parking in their buildings. But if on-street parking is metered, time-limited, or restricted to other users, then it becomes feasible to charge for parking in nearby multifamily buildings. As noted above, a market-based approach is likely to be most successful when supported by on-street parking management, which primarily involves controlling the price and supply of on-street parking resources (see Section 2.3.1 below for details). Thus when on-street parking management is implemented effectively as part of a market-based approach, it can be expected to have a strong influence on the pricing of off-street parking.

Lastly, pricing necessitates unbundling the price of the parking from the price of residential units. But unbundling will only help promote RSP outcomes if the price of the parking is high enough to influence consumer decisions on whether or not to purchase parking. For the two reasons discussed above, a market-based approach will help realize parking prices high enough to enable the full benefits of unbundling.



2.2 Removing Minimums

A market-based approach is most appropriate in areas that provide mobility options and walkable access to services that make living with fewer cars a practical choice. Auburn, Bellevue, Normandy Park, Redmond, Seattle, and Renton have all removed parking minimums in designated areas. In Seattle, the removal of parking minimums has been incrementally implemented in a variety of defined locations such as Urban Centers, high-capacity transit station areas, and areas with access to frequent transit. In 2012, the City of Tacoma removed parking minimums in most of its downtown, motivated by the need to promote economic development, which is supported by preventing parking oversupply.

The basic code associated with a market-based approach is simple: define the area to which the regulations apply, and remove the minimum parking requirement. One additional stipulation that should be addressed for multifamily buildings is accessible parking, which may need to be included in a multifamily building even if no general parking is provided. Washington State Building Code requires that 5% of the total number of dwelling units to be “Type A” accessible dwelling units, that 2% of the total parking stalls are accessible to serve those units, and that one van accessible space is provided for every six accessible stalls. The following model code is one possible solution for setting a minimum amount of required accessible parking even when the general parking ratio is very low or even zero.

It is important to emphasize that removing parking minimums does not mean that no parking will be built.

¹³ RSP research shows that when the explicit costs of parking are not charged to residents, the costs are rolled into rent, where they are not perceived as part of the cost of owning a car. This drives down housing affordability and encourages more driving.



MODEL
CODE

REMOVING
MINIMUMS

INTENT Ensure that sufficient accessible parking is provided even when parking is not otherwise required.

Accessible parking shall be provided for people with physical disabilities as part of all new buildings and additions to existing buildings in accordance with the standards set forth in the building code as adopted by the City, based on the general parking provided, but not less than the following:

- *For residential development, accessible parking shall be provided on-site at a rate consistent as if one general parking space was provided for each dwelling unit.*

The City may approve an alternate to providing on-site accessible parking when it is determined that the alternate is reasonable in light of circumstances associated with the specifics of an individual site and the needs of people with disabilities (e.g., distance to alternate parking area).

2.3 Mitigation Strategies

The prospect of a market-based approach to multifamily parking is likely to be more acceptable to community members if there are also measures in place to help prevent and mitigate potential negative impacts of spillover. Typically, the most troublesome form of spillover from multifamily buildings involves impacts to nearby residents, because the peak parking demand times are simultaneous. However, multifamily spillover can also impact nearby commercial uses, depending on the use and its times of peak demand.

Ideally, the implementation of zero minimums would be contingent on the parallel implementation of neighborhood mitigation measures to assure stakeholders that negative effects will be mitigated if they occur. There are many possibilities for formalizing the requirement for mitigation measures to be in place when a market-based approach is implemented, and this document does not recommend any specific method. Mitigation measures could also be tied to ongoing monitoring of parking utilization, such that implementation is triggered when impacts reach a certain predetermined level. Most mitigation strategies fall under the category of on-street parking management, but there are also some site-related strategies, as described below.

2.3.1 On-street Parking Management

On-street parking management includes a variety of methods to improve the utilization efficiency of on-street parking resources, and to prioritize different types of users of off-street parking. A summary of different on-street parking management strategies and their relevance to mitigation for a market-based approach is provided below. Appendix 6.3 presents an in-depth review of best practices in on-street parking management.

Resident Permits

Permits that give priority to residents for on-street parking are the most important means of neighborhood mitigation. Permits are only issued to neighborhood residents, putting parking off limits to non-residents for extended time periods or at specified times of the day. Cities can provide a process by which residents can request a resident permit program in their neighborhood, such that residents don't feel as if programs and the associated costs are being forced on them.¹⁴ Such programs may require the approval of a majority vote of property-owners within the permit zone.

One shortcoming of many resident permit programs is that they do nothing to prevent spillover from a multifamily building located within the permit zone, since residents of a building in the zone can get permits. Vancouver, WA addresses this problem by prohibiting residents of new multi-family developments that provide off-street parking from obtaining a residential permit. Other cities charge an increasing amount for each additional permit that is issued to a household, reducing the likelihood of supplying more permits than can be accommodated. Toronto offers a reduced price for permits to residents who do not have access to off-street parking, and sets prices higher for residents who do have access to off-street parking and presumably only want a permit for convenience.



The key factor in the potential success of on-street permit programs is setting the price.

In any case, the key factor in the potential success of on-street permit programs is setting the price. On-street parking that is priced significantly lower than off-street parking effectively incentivizes spillover. Furthermore, developers who wish to price parking in their buildings are constrained by competition from on-street parking—if they set prices in accordance with the true cost of producing the parking and that price is higher than the on-street rate, they are likely to end up with highly underutilized parking.

Permits that specifically control overnight parking can be particularly effective at controlling spillover because they prevent people from leaving their cars overnight in an adjacent neighborhood that has more parking supply than their own neighborhood. Finding a place to park a car overnight is often the most difficult car storage need for resident car owners, since they likely take their cars to work or other destinations during the day. Overnight permits could be also used to prevent car owners in buildings without off-street parking from using local on-street parking to store their cars overnight. In this scheme, residents in a building with no parking would not be allowed to purchase an overnight parking permit (see related information in Section 3.6.6).

¹⁴ For example, the City of Portland, OR allows residents to request a new parking permit zone, see <http://www.portlandoregon.gov/transportation/article/82702> Accessed November 15, 2013.



INTENT Manage the establishment of residential permit programs with a set of eligibility criteria.

The following eligibility criteria must be met before an area will be considered for a resident permit program:

- *There must exist at some time during the day an occupancy rate of 75 percent or more of the existing on-street parking spaces. Twenty-five percent (25%) of the vehicles occupying the on-street spaces must be other than vehicles from within the area. This occupancy rate must occur at least four days per week and a minimum of nine months per year.*
- *The requesting area must consist of a minimum of 40 block faces or 8,000 lineal feet of curb space.*
- *The City must agree that the area permit parking program would promote benefits within the designated area.*

An area may apply to participate in a resident permit program through a community-initiated petition with signatures representing 50 percent of the affected addresses, that includes:

- *The parking problem;*
- *The probable cause of the problem;*
- *The proposed boundaries of the congested area;*
- *The number of individual addresses in the congested area; and*
- *The permit fees of the program.*

Time Limits and Metered Parking

Time restrictions can be placed on on-street parking, including limits on the length of time, or on the time of day. These restrictions can be tied to residential permits such that permit holders are not subject to the limits. Overnight parking restrictions are most effective at dealing with multifamily parking spillover.

Parking meters are particularly appropriate in commercial areas, where turnover is important to business owners. In areas with particularly strong parking demand, metering may incorporate variable rates based on utilization monitoring.¹⁵ Municipal codes for time limits and meters are common and are not included here.

¹⁵ "Performance based" variable parking meter rates have been implemented in Washington D.C., For example, see <http://ddot.dc.gov/DC/DDOT/On+Your+Street/Traffic+Management/Parking/Performance+Based+Parking+Pilots> Accessed November 15, 2013.

[Parking Revenue Sharing](#)

Parking Revenue Sharing is an arrangement by which revenue collected for parking fees within a defined area is spent on improvements within that area. Because the revenue gets spent locally, members of the community tend to be more receptive to parking management that involves meters or paid permits. To most effectively act as mitigation for a market-based approach to multifamily parking, Parking Revenue Sharing should target local improvements that support alternatives to travel by car, such as transit stop shelters or sidewalk upgrades.

Parking Revenue Sharing is most commonly implemented through a Parking Benefit District defined by ordinance. However, Washington State does not explicitly grant cities the authority to establish Parking Benefit Districts, and they have not been implemented in any King County municipalities.

In Washington State, Parking Revenue Sharing can be implemented through the creation of a parking enterprise fund that draws parking revenue from an existing, established planning district, such as a Subarea, Neighborhood, or Business District. For example, the City of Kirkland has established a downtown parking enterprise fund intended to direct parking revenue to the construction and maintenance of parking facilities. The City of Portland, OR, has established Parking Revenue Sharing in several districts using this model, and has successfully funded a wide range of capital projects that support alternative modes of travel.



MODEL CODE

PARKING REVENUE SHARING

INTENT [Implement Parking Revenue Sharing](#)

The implementation of Parking Revenue Sharing typically involves the following general steps:

- *Engage local stakeholders who support implementing parking revenue sharing in their area*
- *Designate an existing planning district as a parking revenue sharing district*
- *Establish an enterprise fund to which parking revenue can be directed and held, apart from the City's general fund*
- *Establish a formal committee, typically including local stakeholders, to determine metering rates and the percentage of revenue that is dedicated to improvements within the district, and to select projects to be funded with the parking revenue*

[Off-Street Parking Lots](#)

The availability of private or public parking lots with excess supply can help reduce parking spillover by offering an alternative to on-street parking. Most areas in King County have off-street parking lots with excess supply, at least during specific times of the day or week. Enabling this parking resource to be utilized would help lower the demand for on-street parking spaces. 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.¹⁶ Note that these programs are likely to be most successful in areas with either parking maximums or restrictions on surface parking lot size that would inhibit the development of paid parking lots.

This approach could also be applied to public parking lots. To strengthen the mitigation for potential spillover from multifamily buildings, municipalities could make formal commitments to providing a set amount of public parking for a specified time period. To the best of our knowledge there is no precedent for such a commitment, but it is suggested here as an avenue for exploration.

Utilization Monitoring

Public perception of on-street parking availability is not always aligned with actual utilization. In some cases, utilization surveys may help assuage resident 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. To the best of our knowledge there is no precedent for such a commitment, but it is suggested here as an avenue for exploration.

Peak Overflow Plans:

For the special case of areas where there is an event space such as a sports stadium that draws large quantities of cars during certain time windows, peak overflow plans can help reduce spillover during events. Having this reassurance is likely to make neighborhood residents more open to the spillover risk introduced by a market-based approach.

2.3.2 Site-level Strategies

The strategies covered in the previous section are implemented at the neighborhood scale and are managed by the municipality. This section addresses strategies at the site-scale that would apply to specific properties located in zones where a market-based approach is implemented. Note that all of the measures noted below are components of the context-based approach, as described in Section 3. In the case of a market-based approach, these measures could be stipulated as conditions that would help reduce or mitigate potential spillover when zero parking minimums are allowed.

Limits on Multifamily Resident Car Ownership

One straightforward method for preventing spillover parking is to make sure that residents in a multifamily building don't park more cars than there are parking stalls in the project (unless they lease another off-street space from another property). This can be accomplished through a lease or purchase agreement that stipulates whether

Public perception of on-street parking availability is not always aligned with actual utilization.

¹⁶ Information on the City of Long Beach's program can be found at <http://www.communityparking.com/>. Accessed November 15, 2013.

or not a resident can own a car. For each new tenant who moves into the building, the agreement would be contingent on the current level of car ownership compared to the amount of parking – if there are already enough car owning tenants to fill the on-site parking, the agreement stipulates that the new tenant cannot own a car. See Section 3.6.6 for model code.

[Developer In-lieu Fee for Local Improvements](#)

One variation of a market-based approach is to remove parking requirements but also charge an in-lieu fee based on how far the parking ratio was reduced relative to a specified baseline parking ratio. In this scheme, the number of parking stalls can be reduced as low as desired, but the greater the reduction, the higher the fee the developer pays. To best serve as neighborhood mitigation, the in-lieu fee would be used to fund local infrastructure that supports shared parking or alternatives to automobiles. Also, such programs tend to be most successful when they are tied to an established project. For example, in-lieu fees to service debt on an existing garage is likely to gain public acceptance far more easily than a proposal to use fees for a future parking lot that has not been sited. See Section 3.6.4 for model code.

[Parking Held in Reserve](#)

To mitigate the risk of a market-based approach, developers could be required to set aside a location that would be converted to parking if deemed necessary. Whether or not there was a need for more parking would be determined based on agreed upon parking utilization metrics that would be assessed after the project was completely occupied. If it was determined that the parking impacts of the project were acceptable to the community, the developer would be under no obligation to build more parking. See Section 3.6.5 for model code.

[Transportation Demand Management \(TDM\)](#)

There are multiple TDM measures discussed in Section 3 that could be required as part of a market-based approach to help reduce parking demand, which in turn would help control spillover. Measures include required unbundling of parking price from rent, transportation management plans, car share parking, bicycle parking, and active transportation-supportive design. See Sections 3.5.2, 3.5.3, 3.5.4, 3.6.1, 3.7.1, and 3.7.2 for model code.



CONTEXT-BASED APPROACH

For municipalities that do not wish to implement a market-based approach, a context based approach is the next best solution for promoting RSP outcomes. The following model code is intended to serve as a menu of possible contextual factors that could be considered to effectively set parking minimums that are “right sized” for a given development. Many municipalities already have codes that apply some of our suggested context-based adjustments, or require some of the measures that are associated with our proposed minimum reductions.

The model code includes suggested numerical factors for determining context-based minimums. Some of these metrics are based on the RSP multifamily parking utilization survey, and others are grounded in RSP best practices research. The RSP project’s utilization data and gap analysis indicate that the most common situation in King County municipalities is that parking minimums for multifamily buildings are set higher than what is used by residents.¹⁷ Based on those findings, our suggested parking ratios tend to be lower than the currently codified minimums in many King County cities. These minimums are not intended to be “written in stone,” and we expect that municipalities are likely to make adjustments to suit their own experience and local conditions.

Our model code recommendation is for a context-based approach consisting of two basic steps:

- Establish a baseline minimum based on the general characteristics of the area
- Apply a set of defined, context-based adjustments to arrive at a final parking requirement

The baseline minimum is set by classifying the project location according to a place typology that is defined according to local urban form, land use, and alternative transportation options. Note that this baseline minimum is only a minimum requirement – developers are free to build more parking than the minimum if they so desire.

¹⁷ On average, capacity exceeds observed utilization by 40 percent.

Subsequent adjustments to the baseline are determined by a range of factors including unit size, resident type, transit access, transportation demand management (TDM), shared parking, and parking management. One challenge with parking regulations is that complicated codes can be difficult to update as places evolve over time and parking demand changes.¹⁸ For our proposed two-step method, the process of updating code is simplified because the code can be adapted to new conditions by resetting the base minimum, while leaving all the adjustment factors the same. Our proposed context-based approach is fully described in the following sections.

3.1 Typology and Base Minimums

Background

To set an appropriate baseline minimum, we propose a place typology that forms the basis of our model parking code. Because the built environment and transportation system vary so widely throughout King County, a place typology is an appropriate conceptual framework to establish a baseline for parking code that responds to that diversity. Place typologies can take many forms, and the challenge with any typology is keeping it simple enough to not overcomplicate things, but also not so simple that it loses meaning. Several municipalities in King County have established reduced minimums in designated areas based on what is essentially a place typology.¹⁹ These areas are most typically established in downtowns or other areas targeted for higher density and improved urban form. Such zones have been established in Auburn, Bellevue, Des Moines, Kenmore, Kent, Kirkland, Redmond, Renton, Seattle, and Tukwila.

Proposed Place Typology

Our proposed place typology is intended to serve as guide to set an appropriate base minimum,²⁰ and is essentially a measure of how “urban” a place is. Criteria that determine the place type include standard factors such as employment and population density, mix of uses, level of transit service, walkability, etc. Establishing specific metrics to define each place type is beyond the scope of this document, and in any case, we expect that municipalities are likely to prefer establishing metrics tailored to their local conditions.

For the purposes of maintaining simplicity, we have proposed a typology with only three place types: Urban Core, Mixed-use Center, and Suburban Commercial/Residential Neighborhood.

Several municipalities in King County have already established reduced parking minimums based on a place typology.

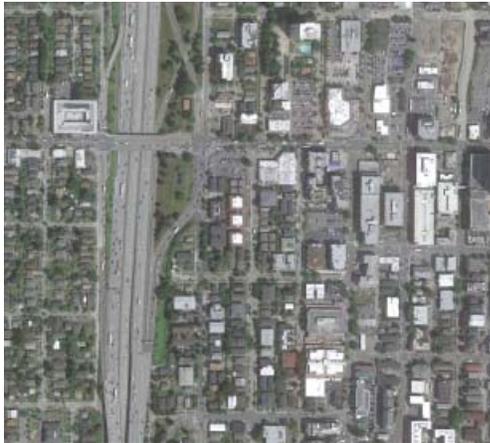
¹⁸ Note that this challenge is not an issue with the market-based solution described above in Section 2.

¹⁹ The RSP Project’s Gap Analysis applied a typology consisting of six place types: Urban Downtown, Regional Center, Suburban Center, Suburban Commercial, Inner Suburb, and Traditional Suburb. For another example, the City of Sacramento has established parking requirements based on four district types: Central Business, Urban, Traditional, and Suburban.

²⁰ The typology could also be used as a guide to determine appropriate neighborhood mitigation measures, see Section 2.

Urban Cores are the highest density, most transit rich areas in the County. Examples include Seattle’s downtown and Regional Growth Centers, and downtown Bellevue. This type is relatively uncommon in King County, but it is still an important component of the typology. These areas are absorbing much of the County’s growth, tend to have current parking policy that is already aligned with RSP goals, and have the potential to serve as proving grounds for RSP concepts.

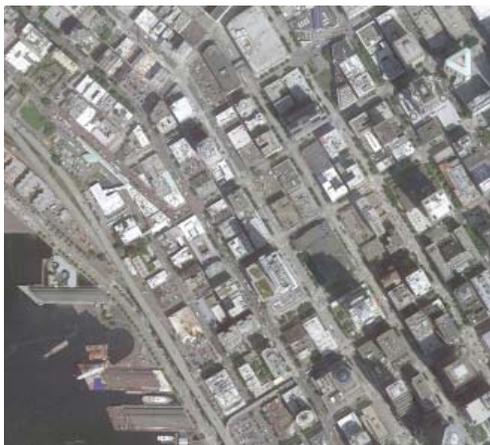
TYPOLOGY:
URBAN CORE



University District, Seattle



Downtown Tacoma



Downtown Seattle



Downtown Bellevue

Mixed-use Centers are medium density, mixed-use urban areas with significant transit access provided by bus service, and fair to good walkability. Examples include the downtowns in the County's medium sized cities, and Seattle's designated "urban villages," such as Fremont. This type is well aligned with the vision many of the County's cities have for more urban downtowns.

TYOLOGY:
MIXED-USE
CENTER



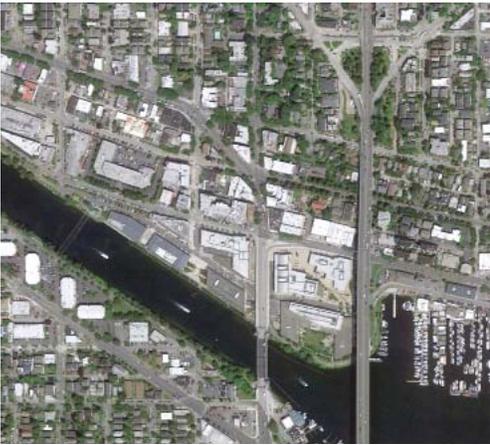
Overlake, Redmond



Downtown Kirkland

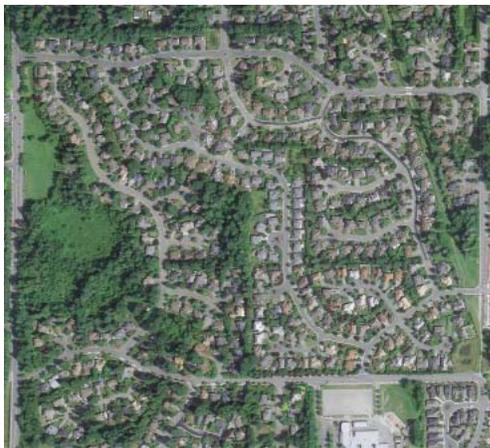


Downtown Federal Way



Fremont, Seattle

Conventional Suburban Neighborhoods are low density, auto-oriented areas that have little to no transit service, are often not attractive places to walk or bike, and include both commercial and residential areas. Although suburban commercial and residential areas are different in many ways, because they are similarly car-dependent, it is appropriate to apply the same baseline parking minimum for a multifamily building in either place.

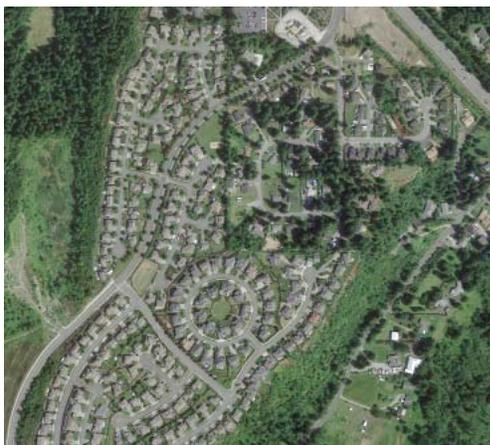


Sammamish



Mill Creek

TYPOLOGY:
SUBURBAN
COMMERCIAL/
RESIDENTIAL
NEIGHBORHOOD



Bonney Lake



Black Diamond



MODEL CODE

ESTABLISH
A BASELINE
MINIMUM

INTENT Establish a baseline minimum based on a defined place type that has been designated for a specified geographical area.

The baseline minimum parking requirement per housing unit shall be set according to the designated place type, as defined in Table 1 below:

TABLE 1: BASELINE MINIMUM STALL REQUIREMENTS PER RESIDENTIAL UNIT

	Urban Core	Mixed-Use Center	Suburban Neighborhood
Minimum	0	.5	1

3.2 Applying Adjustments to the Base Minimum

Once the baseline minimum is established by the place type in which a project is located, a set of adjustments can be applied according to the specific features of the building and context of the site. The full range of context-based adjustments is summarized in Table 1. The adjustments are arranged by the following categories:

- Adjustments for Housing Unit Type
- Adjustments for Resident Characteristics
- Reductions For Transportation Alternatives
- Reductions For Off-Street Parking Management
- Parking Stall Substitutions

The metrics provided in Table 1 are meant to be suggested guidelines to illustrate how the approach can work. It is anticipated that municipalities would make tweaks to the values based on their experience and according to local data and conditions. Several of the metrics are based on the RSP multifamily parking utilization survey, and are marked in Table 1 with an asterisk. The remainder of the metrics are grounded in our best practices research.

To apply the adjustments for Housing Unit Type and Resident Characteristics, the base minimum is multiplied by the factors in Tables 3 and 4. To apply reductions for Transportation Alternatives and Off-street Parking Management, the minimum is reduced by the specified percentage (note that off-street parking management is different from on-street parking management discussed in Section 2.3.1). To apply Parking Stall Substitutions, the total number of car stalls is reduced according to the indicated ratio, for example, four standard car stalls can be eliminated for every one car share stall.

The final context-based minimum is arrived at by applying all of the adjustments that are relevant to the specific project. An example of how a context-based minimum would be calculated is provided in Appendix 6.1.



TABLE 2: CONTEXT-BASED ADJUSTMENTS AND REDUCTIONS

ADJUSTMENTS FOR HOUSING UNIT TYPE

Studio*	1-Bedroom*	2-Bedroom*	3-Bedroom+*	Residential Suite
0.85x	1.0x	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	Active Transportation/ Transit-supportive Design
25%/50%	50%/100%	up to 25%	up to 20%	up to 10%

ADJUSTMENTS 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 Parking
4:1 (up to 40%)	1:4 (up to 25%)	1:2 (up to 5%)	1:1

*Factors derived from the RSP multifamily parking utilization survey

3.3 Adjustments for Housing Unit Type

Background

The parking demand from a multifamily unit can be expected to depend on the number of bedrooms in the unit. In King County, some municipalities make no adjustment to minimums based on the number of bedrooms in a unit, and among those that do make such adjustments, there is little consistency. The recommended adjustments for bedrooms given in the model code below are based on multifamily parking utilization data collected by the RSP project.²¹



INTENT Adjust required parking to reflect the expected dependence of parking demand on the number of bedrooms in a unit.

The baseline minimum parking requirement per housing unit shall be adjusted according to the factors given in Table 3 below:

TABLE 3: ADJUSTMENTS FOR UNIT TYPE

Studio	1-Bedroom	2-Bedroom	3-Bedroom+	Residential Suite*
0.85x	1.0x	1.6x	1.8x	0.5x

*Unit with shared kitchens and common spaces, also known as a single room occupancy (SRO)

²¹ RSP utilization data showed that the effect on parking demand from unit size is less pronounced in the more urban areas of King County.

3.4 Adjustments for Resident Characteristics

Background

Many municipalities have codes that adjust required parking ratios to account for occupants that are expected to have parking needs that vary from the norm. Typical categories include seniors, low-income households, and residential suite tenants. With the exception of very low-income and dormitory, the recommended factors given in the model code below are based on multifamily parking utilization data collected by the RSP project.

INTENT Adjust required parking to reflect the expected parking demand of specific types of residents.

The baseline minimum parking requirement per housing unit shall be adjusted according to the factors given in Table 4 below:

TABLE 4: 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

*Affordable to households with incomes up to 30% of AMI

**Affordable to households with incomes between 30% and 60 of AMI

***Affordable to households with incomes between 60% and 80% of AMI



3.5 Reductions for Transportation Alternatives

Reducing parking in multifamily buildings can help improve the surrounding pedestrian environment.

3.5.1 Transit Access

Because residents who live near transit are less likely to own cars, it can be expected that buildings located near transit would need to supply less parking. Furthermore, reducing parking in multifamily buildings can help improve the surrounding pedestrian environment, which in turn helps support transit use. In King County and nationwide, municipalities have applied a variety of criteria for transit access that qualify a building for reduced parking requirements. For the purposes of this model code, we make a distinction between frequent transit access and fixed-guideway transit access, as described below.

3.5.1.1 Frequent Transit

Background:

In most King County locations, transit means buses. Whether or not transit service is likely to impact travel choices sufficiently to justify a reduction in parking is determined by two key factors: (1) the frequency of the transit service, and (2) the walking distance from the transit station to the multifamily building.



MODEL CODE

ADJUSTMENTS FOR FREQUENT TRANSIT

INTENT Reduce parking requirements to reflect lower rates of car ownership by residents who live near frequent transit.

For sites located within ¼-mile of a transit stop served by 20 minute peak hour headways, the baseline minimum parking requirement shall be reduced by 50 percent.

For sites located within ½-mile of a transit stop served by 20 minute peak hour headways, the baseline minimum parking requirement shall be reduced by 25 percent.

Distance shall be measured in a straight line from the main residential doorway of the building. Peak hours are defined as weekdays between 7am – 9am, and between 4pm – 6pm.

3.5.1.2 Fixed Guideway Transit

Background

Fixed-guideway transit – either light rail or lane-separated bus rapid transit – is a special case that justifies greater parking minimum reduction, because it is permanently located, high-capacity transit service with frequent headways. Interviews with developers indicate that these types of transit services are generally more popular than bus transit service, supporting the differentiation in parking requirements.

INTENT Reduce parking requirements to reflect lower rates of car ownership by residents who live near permanent, high-capacity transit stations.

For sites located within ¼-mile of a high capacity,* fixed-guideway transit stop, the baseline minimum parking requirement shall be reduced to zero.

For sites located within ½-mile of a high capacity, fixed-guideway transit stop, the baseline minimum parking requirement shall be reduced by 50 percent.

Distance shall be measured in a straight line from the main residential doorway of the building.

*RCW 81.104.015: "High-capacity transportation system" means a system of public transportation services within an urbanized region operating principally on exclusive rights of way., which... provides a substantially higher level of passenger capacity, speed, and service frequency than traditional public transportation systems operating principally in general purpose roadways.



3.5.2 Bike Share Facility

Background

An on-site bike share system provides a convenient transportation alternative to automobiles, thereby encouraging less car ownership and reduced parking demand. Note that this depends on a private bike-share company offering service in the area, and a formal agreement with the property owner.



MODEL CODE

ADJUSTMENTS FOR BIKE SHARE FACILITY

INTENT Allow a reduction in required parking in exchange for provision of an on-site bike-share service.

Substitution of a bike sharing facility for required parking is allowed if all of the following are met:

- A bike sharing station providing 15 docks and eight shared bicycles reduces the motor vehicle parking requirement by three spaces. The provision of each addition of four docks and two shared bicycles reduces the motor vehicle parking requirement by an additional space, up to a maximum of 25 percent of the required parking spaces;
- The bike sharing facility must be adjacent to, and visible from the street, and must be publicly accessible;
- The bike sharing facility must be shown on the building plans; and
- A copy of the car-sharing agreement between the property owner and the bike-sharing company must be submitted with the building permit.

3.5.3 Resident Transportation Management Plan

Background

Buildings may incorporate a range of resident amenities that promote transportation alternatives to the car and thereby reduce parking demand. A variety of possible strategies can be formally packaged together as a Transportation Management Plan (TMP). See the model code below for common examples.

INTENT Allow for a flexible, discretionary reduction in parking requirements in exchange for formal adoption of a TMP plan for building residents.

The parking requirement may be reduced by up to 20 percent in exchange for a Transportation Management Plan (TMP) approved by the City and recorded with King County. The amount of reduction is discretionary to be determined by the City, and depends on the type and extent of strategies in the TMP, which may include:

- *Transit passes or equivalent alternative transportation mode subsidies for tenants*
- *Alternative transportation information center located in the building*
- *Resident Car Pool and/or Ridematch Program*
- *Enhanced shuttle service (or contributions to extend or enhance existing shuttle service or to create new shared or public shuttle service)*
- *Subsidized membership in a private car-share company*
- *Resident Car Share Program (residents share their privately owned cars with other residents)*
- *On-site bicycle share program for residents or the general public*
- *Limitation of "assigned" parking to one space per residential unit*
- *Provision of priority parking spaces for carpools/vanpools*
- *Designation of a Transportation Coordinator to manage the TMP, provide commute information to all new tenants, actively manage and pursue mode shift goals, and be a point of contact for the City*
- *Bike-repair/workshop space in the building*
- *Lease provisions and monitoring requirements for the property owner to ensure that tenants are not parking off site to avoid parking charges*
- *Presence of basic daily uses within ¼-mile, such as grocery/corner store, drug store, or child care; and/or weekly uses such as bank, convenience store, restaurant, or theater*
- *Other approaches accepted by the City that reduce parking demand*

The program shall be proposed to the satisfaction of the City, shall include proposed performance targets for parking and/or trip reduction and indicate the basis for such estimates, and shall designate a single entity (property owner, homeowners association, etc.) to implement the proposed measures. Where the monitoring reports indicate that performance measures are not met, the City may require further program modifications.



3.5.4 Active Transportation/Transit-Supportive Design

Background

There are numerous building design features that can help support transportation alternatives to the automobile, such as transit shelters, sheltered outdoor bike racks, wide sidewalks, overhead weather protection, street furniture, landscaping, screening, and even a mixed use building itself, since a localized mix of uses tends to encourage walking and cycling. (Applicability to parking minimum reductions would be limited to cases in which these features are not already required.)



MODEL CODE

ADJUSTMENTS FOR ACTIVE TRANSPORTATION/ TRANSIT- SUPPORTIVE DESIGN

INTENT Allow for a flexible, discretionary reduction in parking requirements in exchange for incorporation of design features that support alternatives to the car.

The parking requirement may be reduced by up to 10 percent in exchange for project design features that support alternatives to the automobile, and that are not required by existing code. The amount of reduction is at the discretion of the City, and depends on the type and extent of incorporated design features, which may include:

- *Transit Plaza*
- *Transit Shelter*
- *Extended width sidewalks with seating for transit*
- *Publicly accessible, sheltered outdoor bike racks or storage*
- *Overhead weather protection*
- *Publicly accessible pedestrian walkways through the site*
- *Underground or concealed, structured parking*
- *Transit information (e.g., notification of next bus arrival)*
- *Exemplary landscaping or screening parking or other blank walls*
- *Inclusion of a service use in the building such as grocery/corner store, drug store, child care, bank, convenience store, restaurant, or theater*
- *Minimum residential density in the building; appropriate minimum density depends on context*

3.6 Reductions for Off-Street Parking Management

3.6.1 Unbundled Parking

Background

Unbundling the price of parking from the price of rent is one of the most effective and proven Transportation Demand Management (TDM) strategies.²² The option to not pay for parking is a strong incentive for people to reduce their car ownership and demand for parking spaces. However, it is important for municipalities to recognize that if the parking price is set at a relatively low, nominal level, then the impact of unbundling will be limited since there is little incentive for residents to alter their choices.²³ In many areas of King County there is an oversupply of parking on the street or in private lots, in which case multifamily property owners have to hold down their parking prices to be competitive. Municipalities could consider setting a minimum on the unbundled parking price, but the proper pricing level would be difficult to determine.

INTENT Mandate unbundling parking from the price of rent in new multifamily buildings, and/or reduce parking minimums to reflect the reduced demand expected when parking is unbundled.

All off-street parking spaces accessory to residential uses in new structures of 10 dwelling units or more, or in new conversions of non-residential buildings to residential use of 10 dwelling units or more, shall be leased or sold separately from the rental or purchase fees for dwelling units for the life of the dwelling units, such that potential renters or buyers have the option of renting or buying a residential unit at a price lower than would be the case if there were a single price for both the residential unit and the parking space.

Where residential parking space is unbundled (parking spaces are offered at market rates as an option distinct from the purchase or lease of a residential unit), the baseline minimum parking requirement shall be reduced by 20 percent.



²² For more details on unbundling see the RSP "Best Practices: Parking Policy Practices in Zoning and Parking Requirements for Multifamily Properties" report, which will be available online:

<http://metro.kingcounty.gov/up/projects/right-size-parking/pdf/rsp-parking-policy-menu-v7.pdf>

²³ Elasticity analysis of the RSP utilization data showed that the effect of pricing on utilization is diminished in areas with limited transportation alternatives.

3.6.2 Shared Parking

Shared parking between more than one type of user can reduce the amount of parking in new multifamily construction by enabling more efficient time utilization of parking resources. Through leveraging complementary peak time demands of different uses, shared parking allows a reduction of physical parking spaces without a reduction in effective supply. Shared parking can be implemented within a single mixed-use building, or between nearby properties that may not have the same owner.

3.6.2.1 Peak Use Standards

Background

Determining the appropriate amount of parking supply reduction for sharing between complementary uses requires reliable, vetted data on the time dependence of parking for each use that is part of the sharing plan. While there is no single, regionally accepted standard, there are several reliable sources of this information. Typically, usage rates are broken out by weekday/weekend, and by three time periods during the day.



MODEL CODE

APPLICATION OF PEAK USE STANDARDS

INTENT Adopt a recognized standard for time-dependent parking occupancy rates by use.

The minimum number of parking spaces for a shared parking proposal shall be determined by a study prepared by the applicant following the procedures of the Urban Land Institute Shared Parking Report, ITE Shared Parking Guidelines, the Victoria Transport Policy Institute, or other approved procedures.

3.6.2.2 Sharing Within an Individual Property

Background

Single mixed-use projects may contain uses that have complementary parking utilization patterns, in which case sharing of the on-site parking can allow for a reduced number of parking stalls in the project. Note that this type of shared arrangement would usually require that the parking facility be designed to allow public access to all areas of the parking lot. In typical mixed-used buildings, 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.

For mixed-use buildings with as much or more commercial floor space than residential floor space, it is reasonable to expect that there would be a substantial amount of the commercial parking left vacant during the hours when parking is needed by residents. In such cases, residential parking requirements can be reduced or eliminated without the need for a formalized shared parking plan.

INTENT Allow a reduction in parking requirements for mixed-use buildings in which uses are complimentary and parking can be shared.

Option 1

The total required parking within a single mixed-use project may be reduced up to 50 percent from the base minimum with an approved shared parking plan that meets the requirements of Section 3.6.2.1.

Option 2

No parking shall be required for the residential units in a mixed-use project where at least 50 percent of the floor area is designed for commercial or institutional use.

**MODEL
CODE** 
REDUCTIONS
FOR SHARED
PARKING ON
AN INDIVIDUAL
PROPERTY

3.6.2.3 Sharing Between Multiple Properties

Background

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. Note that the risk introduced by such agreements may be unappealing to developers. To promote more adoption of shared parking schemes, municipalities could consider developing agreements that ease the legal inflexibility, perhaps utilizing performance based requirements.



MODEL CODE

REDUCTIONS FOR SHARED PARKING ON NEARBY PROPERTIES

INTENT Allow a reduction in parking requirements for buildings that establish a shared parking agreement with nearby complementary uses on separate properties.

The total required parking for a development project may be reduced up to 50% from the base minimum with an approved shared parking plan that involves a nearby property and meets the requirements of Section 3.6.2.1, and the following requirements:

- The distance via sidewalk or paved path between the two lots involved in the sharing agreement is ½ -mile or less; the distance the two parking sites shall be measured from the nearest corner of each facility to the nearest public entrance to the building, via the shortest pedestrian route.
- The availability of parking for all affected properties is indicated by directional signs
- A covenant, easement or other contract for shared parking and/or access between the cooperating property owners is enacted, approved by the City, recorded with King County records and elections divisions as a deed restriction on both properties and that cannot be modified or revoked without the consent of the City. The shared parking contract shall:
 - » Provide that the land comprising the required shared parking facilities shall not be encroached upon, used, sold, leased, or conveyed for any purpose except in conjunction with the building or use which the required parking serves, so long as the shared parking facilities are needed. The contract terms shall be for as long as any of the shared uses continues in existence;
 - » Indicate prime hours of operation for shared uses;
 - » Assign maintenance provisions for the parking facilities and landscaping;
 - » Designate potential times of overflow, and a parking plan which will be implemented in the event of overflow.
- If any of the above contractual requirements for shared parking are violated, the affected property owners must provide a remedy satisfactory to the City or provide the full amount of required off-street parking for each use, in accordance with City requirements, unless a satisfactory alternative remedy is approved by the City.

A model shared parking agreement is provided in Appendix 6.2.

3.6.3 Remote Parking

Background

In some cases there may be opportunities to locate parking for a multifamily building off site. Since this is one-for-one replacement (not shared parking), it doesn't alter the total supply of local parking, but it does allow a development to be constructed with less parking, which may improve the economic feasibility of a project. This approach enables a development to take advantage of an existing underutilized parking resource, and also creates the option for the remote parking to be "decommissioned" at some point in the future if parking demand declines. The remote parking site could be under the same or different ownership.

INTENT Allow a one-for-one exchange of required on-site parking for designated parking at a nearby off-site location.

Up to 100 percent of the required parking may be located may be located off-site, so long as it is:

- *On a site not more than ½-mile from the site of the use for which such parking is required; the distance to the off-site parking shall be measured from the nearest corner of the parking facility to the nearest public entrance to the building via the shortest pedestrian route.*
- *Connected to the property by streets improved with sidewalks or walkways; and*
- *Tied to the site by a contractual agreement reviewed and approved by the city attorney that is filed with the city and deed of record at the county.*



3.6.4 In-lieu Fee

Background

Reductions in parking minimums can be offset by in-lieu payments used to fund facilities that provide parking off-site, or to fund other mitigations for loss of parking supply, such as on-street parking management, or other investments that can help reduce auto dependence. The municipality must manage the use of the payments and set the price for the in-lieu payments (examples range from \$7k to \$20k per stall). Ideally, an in-lieu system should prioritize funding infrastructure that supports SOV-alternatives, such as bike lanes. One potential variation of this strategy is payment to a parking local improvement district (LID) in exchange for a reduction in parking requirements.



MODEL CODE

REDUCTIONS
FOR AN
IN-LIEU FEE

INTENT Allow a reduction in parking requirements in exchange for an in-lieu payment that funds mitigations for the reduced parking or other local improvements.

Option 1

Development project applicants may meet all or a portion of their off-street parking requirements by paying a fee-in-lieu of parking for each required parking stall or fraction of a stall into a special fund that will be used to fund municipal off-street parking or public infrastructure investments that reduce parking demand by encouraging alternatives to automobiles. The in-lieu parking fee shall be determined annually by the City based on current land and construction costs for parking.

Option 2

Those properties whose owners paid into parking local improvement district shall have their off-street parking requirements reduced by 20 percent.

3.6.5 Deferred Provision of Parking

Background

When the future parking demand of a development project is not certain, it may make sense to defer construction of parking until the need is established, thus avoiding overbuilding parking.

This approach requires a legal agreement with the developer, along with a designated location—either on or off-site—that is set aside for the parking if needed. One drawback of this strategy is that it introduces developer risk, since the future construction of parking is a cost that may or may not be required. One option that could make this more attractive to developers is a stipulation that additional units of housing could be built on the set aside land if parking demand is lower than what was supplied.

INTENT Allow reduced parking requirements in special circumstances, with an agreement that additional parking will be built at some point in the future if deemed necessary.

The City may authorize that construction and provision of not more than fifty percent of the required off-street parking stalls be deferred for either an unlimited or a specific time period, if the following requirements are met:

- *Land area required for provision of deferred parking shall be maintained in reserve on the site, or not more than 500 feet from the site*
- *Submission of a site plan showing the parking area to be immediately developed and the reserved area*
- *A letter from the applicant guaranteeing full and satisfactory completion of all required parking improvements upon written notice of requirement by the City*



3.6.6 Lease/Deed-Restricted Parking

Background

Buildings with low parking ratios may produce spillover if there are more resident car owners than available parking stalls. To prevent this, rental building managers can monitor parking supply and utilization, and limit the number of car owners in the building. This arrangement minimizes the risk of spillover, even from buildings that have very little parking. The City of Kirkland has recently implemented code that allows this option for “residential suites,” which are essentially the same as single-room occupancy units (SROs).



MODEL CODE

LEASE/DEED- RESTRICTED PARKING

INTENT In exchange for a reduction in parking requirements, require building management to monitor and restrict tenants’ car ownership based on the parking capacity of the building.

The required parking may be reduced to as low as zero per housing unit where the parking is managed as follows and the property owner agrees to the following in a form approved by the City and recorded with King County:

- *Rentals shall be managed such that the total demand for parking does not exceed the available supply of required private parking. If the demand for parking equals or exceeds the supply of required private parking, the property owner shall either restrict occupancy of living units or restrict leasing to only tenants who do not have cars.*

3.6.7 Parking Districts

Background

Parking Districts can provide an opportunity for multifamily developments to reduce their on-site parking. A Parking District can be formed by one or more properties, and can account for some or all of the parking requirements within the District, including vehicular parking located in structures and surface lots, on-street parking, and bicycle parking. Parking Districts enable the efficient planning, utilization, and sharing of the full range of parking resources throughout the District, thereby helping to minimize space devoted to parking. Parking Districts also allow flexibility in the timing of parking construction, so that it can be coordinated with construction phasing and evolving demand for parking.



MODEL CODE

PARKING DISTRICTS

INTENT Allow a reduction in off-street parking requirements for developments that are part of a Parking District.

The total required parking for a development project may be reduced up to 100 percent from the base minimum for developments that are part of a Parking District. The applicant must provide documentation on the parking resources in the Parking District that will offset the reductions in on-site parking for the project.

3.7 Parking Stall Substitutions

3.7.1 Car Share Stalls

Background

The presence of shared cars in multifamily buildings encourages less car ownership and reduces parking demand. Note that this depends on a private car-share company offering service in the area where the project is located, and many suburban areas in King County may not have this opportunity for some time.

An emerging type of car-sharing is peer-to-peer car sharing, which involves individual car owners renting out their privately owned cars to other private individuals.²⁴ This scheme could enable car sharing in locations where a private car-share company is not operating. The drawback is that multifamily building owners don't have control over whether or not their residents are willing to rent their cars through a peer-to-peer program. One potential solution is for the building owner or condo association to supply cars that can be rented through a peer-to-peer network, and provide dedicated parking stalls.

INTENT Allow a reduction in required parking in exchange for provision of dedicated car share parking stalls.

Substitution of car sharing spaces for required parking is allowed if all of the following are met:

- For every car-sharing parking space that is provided, the motor vehicle parking requirement is reduced by four spaces, up to a maximum of 40 percent of the required parking spaces;
- The car-sharing parking spaces must be shown on the building plans; and
- A copy of the car-sharing agreement between the property owner and the car-sharing company must be submitted with the building permit; or the property owner must provide a legal document formalizing their commitment to provide one car available for peer-to-peer car sharing for each designated car share stall.

**MODEL
CODE** 
REDUCTIONS
FOR CAR SHARE
PARKING STALLS

²⁴ Relay Rides is an example of this service that is currently operating in the Seattle area, see <https://relayrides.com>
Accessed November 15, 2013.

3.7.2 Secure, Sheltered Bicycle Parking

[Background](#)

Provision of secure, sheltered bicycle parking in a multifamily building can be expected to encourage travel by bicycle and reduce parking demand. Many King County municipalities already require some amount of bicycle parking, in which case the reduction of car parking stalls should be counted against the amount of bicycle parking that exceeds the required standard.



MODEL CODE

REDUCTIONS
FOR SECURE,
SHELTERED
BICYCLE PARKING

INTENT Allow a reduction in required parking in exchange for provision of dedicated car share parking stalls.

Bicycle parking may substitute for up to 25 percent of required parking. For every four non-required bicycle parking spaces that meet the short or long-term bicycle parking standards, the motor vehicle parking requirement is reduced by one space. Existing parking may be converted to take advantage of this provision.

3.7.3 Motorcycle Parking

[Background](#)

Motorcycles require less space and expense for parking, and therefore encouraging motorcycle use can help further RSP goals.



MODEL CODE

REDUCTIONS
FOR MOTORCYCLE
PARKING

INTENT Allow motorcycle parking spaces to count toward the requirement for automobile parking spaces.

Motorcycle parking may substitute for up to 5 percent of required automobile parking. For every four motorcycle parking spaces provided, the automobile parking requirement is reduced by one space. Each motorcycle space must be at least four feet wide and eight feet deep. Existing parking may be converted to take advantage of this provision.

3.7.4 Adjacent on-street spaces

Background

Street parking is a publicly-owned parking resource. In locations where street parking utilization is low, residential off-street parking requirements can be partially satisfied by parking spaces on streets directly adjacent to the building. One option is designation of adjacent on-street parking to satisfy visitor parking requirements. Note that this approach is likely not appropriate for locations where spillover parking is a concern.

INTENT Allow adjacent street parking to count towards off-street parking requirements.

On-street parking that is located directly adjacent to a development site may be used to satisfy minimum parking requirements and shall not be included in determining maximum surface parking allowances.



3.8 Additional Code Options

3.8.1 Tandem Parking and Parking Lifts

Background

Tandem parking doesn't reduce parking supply, but it does allow for a more efficient use of space to meet parking demand, thereby reducing cost and increasing design flexibility. A parking lift that allows the storage of two stacked cars in the area of one standard stall is functionally equivalent to tandem parking. Some municipalities that allow tandem parking require that tandem space must be assigned to a single housing unit, based on the assumption that residents of different units would not be able to coordinate their car use. Given the power of modern communications, however, that assumption is likely too conservative, and it would be reasonable to expect that these arrangements would be workable for many residents, especially if incented by reduced price.



MODEL CODE

TANDEM PARKING AND PARKING LIFTS

INTENT Allow parking to be supplied with tandem parking or parking lifts.

Tandem parking or parking lifts that can accommodate two cars may count as two parking stalls toward the required minimum number of stalls.

3.8.2 Visitor Parking

Background

Some municipalities require designated off-street visitor parking for multifamily buildings. This places an additional parking burden on projects for a parking use that is likely to be unused for a large fraction of the time. An alternative approach is to not allocate additional stalls specifically for visitors, and instead, allow visitors to use empty stalls in the unreserved areas of resident parking, with a time limit. This scheme would require monitoring, which would be most appropriately handled by the building management, but self-policing by residents is also an option. Garage security could be maintained by requiring residents to open the garage entrance for their visitors.



MODEL CODE

VISITOR PARKING

INTENT Do not dedicate specific parking stalls for visitors, and allow visitors to use open unreserved resident parking stalls with a specified time limit.

The requirement to supply visitor parking may be satisfied by allowing visitors to access the residential parking and use stalls that are open. Use of resident stalls by visitors shall be limited to 4 hours, and shall be monitored by the building management.

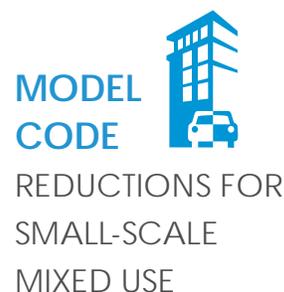
3.8.3 Small-scale Mixed-use Parking Exemption

Background

Small commercial uses in commercial buildings tend to serve building residents and pedestrians from the neighborhood, and so can be expected to have lower than typical parking demand. Reducing parking for commercial use doesn't reduce residential parking, but still reduces total parking in a mixed-use building and furthers RSP goals.

INTENT In mixed-used residential developments, do not require off-street parking for small commercial uses.

A non-residential space on the street level of a mixed-use building which is less than or equal to 4,000 square feet will have its parking requirement waived.



3.8.4 Flexible Stall Conversion

Background

In many areas of King County it is anticipated that alternatives to travel by car will become more robust over time, in which case parking demand in a multifamily building can be expected to decline, and parking garages designed to handle current demand would start to become underutilized. In such a scenario, conversion of car parking stalls to other uses would allow for more efficient use of the garage space, and create more value for property owners. In addition, if stalls are converted to uses that support alternative modes such as cycling, RSP goals will be further supported.

INTENT Allow flexible adaptation of parking as demand evolves over time.

Automobile parking stalls that were required by code at the time of construction may be converted to other uses provided that:

- *the property owner conducts a parking study demonstrating that current parking demand renders the stalls unnecessary or;*
- *the municipality has reduced the minimum parking requirement since the building was permitted such that the stalls to be converted would no longer be required.*





PARKING MAXIMUMS

The application of parking maximums is highly context-dependent. Maximums are typically only applied in areas where there is a significant excess of parking supply, or are highly urbanized with robust transit service, or there is a risk that developers will oversupply parking with the intent to sell the excess spaces to non-residents. Light rail station areas are often good candidates for maximums. Imposing maximums is most appropriate when aligned with public policy intended to reduce dependence on the automobile. Care must be taken to not set maximums so low as to render development projects financially infeasible. Ideally, maximums should be set enough above the applicable minimum such that there is flexibility to meet the needs of most projects.

As discussed in Chapter 1 of this document, it is well established that excess parking can have significant costs to society. These costs are incurred regardless of whether the excess parking is caused by government regulations, or by developer choice. Removing minimums eliminates the former cause, but not the latter. If municipalities wish to ensure that the market does not produce excess parking even in the absence of requirements, maximums are necessary.

Lending decisions for real estate development are based on existing comparable projects (“comps”). But in places transitioning toward alternatives to the automobile, there are unlikely to be comps with a reduced level of parking commensurate with future reduced demand for parking. Under such conditions, excess parking becomes a self-fulfilling prophecy, and maximums may be an appropriate tool to help break that cycle.

Parking maximums are typically defined at the individual project level, but an alternative is an area-wide cap that puts a maximum on the total number of parking spaces allowed within a defined district. The cap is typically calculated according to the roadway capacity of the defined district. Because area-wide parking caps are relatively uncommon, complex to administer, and usually involve both commercial and residential parking, a model code is not provided.

Parking maximums may be particularly applicable to urban areas where growth is desired, but where road capacity is limited. In this scenario, development

proposals are likely to be controversial because of concerns over the traffic they generate. But instead of limiting development capacity and compromising smart growth goals, the alternative solution is to limit accommodations for cars with parking maximums, and thereby preserve accommodations for people and jobs.

Maximums are also relevant to public policy on affordable housing. If developers build excess parking, it adds unnecessary construction costs that will likely be passed onto renters or buyers. Maximums place an upper limit on the amount that the inclusion of parking adds to the cost of producing housing. In this way, maximums could be considered as a tool to promote affordable housing especially when parking costs are unbundled from the price of housing.

4.1 Unit-based Maximums

4.1.1 Maximums by Place Type

Background

Residential parking maximums are typically set according to the amount of housing in the building. The simplest method is to define the maximum by a specified ratio to the number of units, similar to the case of parking minimums. Since maximums are so context-dependent, a place typology can serve as a guide for setting maximums. Note that it may be appropriate to establish lower parking maximums for rental units than for for-sale units.



INTENT Limit the number of parking stalls that can be provided within a residential development.

The maximum amount of parking allowed per housing unit shall be set according to the designated place type, as defined in the Table below.

TABLE 5: BASELINE MAXIMUM STALL REQUIREMENTS PER RESIDENTIAL UNIT

	Urban Core	Mixed-Use Center	Suburban Neighborhood
Maximum	1	1.5	2

4.1.2 Context-based Maximums

Background

To establish parking maximums that take into account unique, site-specific conditions, one solution is a context-based approach that builds on the method for deriving context-based minimums (see Section 3). The appropriate value for a parking maximum is influenced by the same contextual variables that determine an optimum context-based minimum. Therefore, once the context-based minimum is calculated for a given project, a context-based maximum can be determined by scaling up the minimum by a designated factor, which would likely be in the range of 1.5 to 2.

INTENT Incorporate context-based factors to set limits on the number of parking stalls that can be provided within a residential development.

The maximum amount of parking allowed per housing unit shall be equal to the minimum allowed parking as determined according to Section 3.1, multiplied by 1.75.

**MODEL
CODE** 
CONTEXT-BASED
MAXIMUMS

4.2 Maximums on Surface Lots

Surface parking lots are the most inexpensive form of parking when land values are low, but they can degrade the urban form and walkability of a place, thereby compromising overall RSP goals. To limit negative impacts of surface parking, maximums can be imposed that apply only to surface parking, but not to structured or underground parking. The appropriate level of the maximum on surface lots is highly dependent on local context, and it is expected that municipalities would tailor code to meet their unique conditions and needs. The place typology proposed in Section 3.1 could be used as a guide to set specific parameters in the code. There are three options for limiting surface parking; each is detailed below.

4.2.1 Unit-based Surface Lot Maximums

Background

Depending on the local conditions, surface parking stalls could be completely prohibited, limited according to the number of units, or limited according to the number of bedrooms. The ratio between the maximum and the housing units/bedrooms would be determined based on local context.

INTENT Limit the number of parking stalls provided in open surface lots.

Option 1

Surface parking lots are prohibited.

Option 2

Parking in surface lots shall not exceed 1.5 stalls per residential unit.

Option 3

Parking in surface lots shall not exceed 1.0 stalls per bedroom.

**MODEL
CODE** 
UNIT-BASED
SURFACE LOT
MAXIMUMS

4.2.2 Area-based Surface Lot Maximums

[Background](#)

Limiting the total surface area of surface parking lots helps reduce negative urban design impacts and is an indirect method of limiting the number of surface parking stalls. Depending on local conditions, surface lot area maximums could be defined by area percentage of the development lot, by an absolute maximum area, or by a combination of both.



MODEL CODE

AREA-BASED SURFACE LOT MAXIMUMS

INTENT Limit the area of surface parking lots.

The total area of surface parking lots on the development site shall not exceed 25% of the total area of the development parcel, or 10,000 square feet, whichever is smaller.

4.2.3 Location-based Surface Lot Maximums

[Background](#)

The negative urban design impacts of surface parking can be reduced by limiting the exposure of surface lots to pedestrian-oriented areas. Depending on local conditions, the location of surface parking lots could be restricted by the location relative to the building, and by the amount of street frontage.



MODEL CODE

LOCATION-BASED SURFACE LOT MAXIMUMS

INTENT Restrict the location of surface parking lots.

Option 1

Surface parking shall not be located between a structure and a street lot line.

Option 2

Surface parking shall not have any frontage on the principal street upon which the main structure is located.

Option 3

Surface parking to the side of a structure shall not exceed 60 feet of street frontage on the principal street upon which the main structure is located.



CODE FLEXIBILITY

Even with all the context-based considerations described above, parking regulations should allow for exceptions. Development projects often have unique conditions that call for unique solutions, and it is important that code allow for discretionary variances or departures. RSP research found general trends, but also found exceptions to these trends when unique characteristics were present. The context-based model code described in this document includes numerous adjustments to parking minimums based on project-specific conditions, and the intent is that these stipulations will reduce the need for variances. However, even with these code refinements, it can be anticipated that departures may be appropriate in some cases to help achieve RSP.

Many King County municipalities have already codified allowances for parking requirement variances, with stipulations for a variety of mitigating factors such as parking and traffic studies, proximity to transit, building uses, and physical limitations of the site. The City of Mercer Island has a unique approach in which the code only defines a parking minimum range, and a code official makes a determination based the site plan and traffic analysis. The City of Seattle's Design Review process allows for review and approval of proposed departures from parking requirements.



**MODEL
CODE**
CODE
FLEXIBILITY

INTENT Allow variances on parking requirements to account for unique situations.

The City shall have the authority to waive or modify specific off-street parking requirements in unique circumstances to ensure that the City's policy goals are met, and to allow for flexibility and innovation in design. Unique circumstances may include, but are not limited to the following:

- *Physical circumstances of the site such as topography, lot size/ shape, and environmentally sensitive areas*
- *Adjacent land use characteristics*
- *Availability of public parking resources nearby*
- *Proximity to transit routes*
- *Shared parking arrangements*
- *TDM measures*
- *Supplementary on-site non-motorized or high occupancy vehicle facilities*

An applicant may request a modification of the minimum required number of parking spaces by submitting a study of anticipated parking demand complying, proving that parking demand can be met with a reduced parking requirement. In such cases, the City may approve a reduction of the minimum required number of parking spaces on a case-by-case basis. Criteria for evaluation of proposals include, but are not limited to:

- *Consistency with the City's urban design vision*
- *Impacts to the abutting properties or right-of-ways, dedicated tracts, or easements*
- *Compatibility with the character of the surrounding properties and their parking facilities*
- *Equivalence to the intent and purpose of the original requirements*
- *Impacts to safety and public services*

Exceeding maximums is a special case for which the applicant must provide sufficient evidence showing that additional parking is necessary to meet the parking demand for the specified use, off-site shared parking is not available or adequate to meet demand, and transportation management measures have been maximized. The evidence shall be in the form of an analysis from a professional with expertise in traffic and vehicular analyses, unless the City determines that a professional analysis is not necessary.



APPENDIX

6.1 Example Calculation of a Context-Based Minimum

Project Definition:

- Unit mix: (20) studio, (20) 1-bedroom, (20) 2-bedroom
- Half of each unit type are workforce
- Resident TMP
- Parking is unbundled
- Project includes eight bike parking stalls

Set base minimum according to the typology in Table 1 on page 20:

- Place type: suburban neighborhood
- Base parking minimum = 1

Apply adjustments and reductions given in Table 2 on page 21:

Adjustments for units and residents:

- 0.85 for studios
- 1.0 for 1-bd
- 1.6 for 2 bd
- 0.75 for workforce units

Studios: (10 units x 0.85 x 0.75) + (10 units x 0.85)	14.9 stalls
1-bd: (10 units x 1 x 0.75) + (10 units x 1)	17.5 stalls
2-bd: (10 units x 1.6 x 0.75) + (10 units x 1.6)	<u>28.0 stalls</u>
Total =	60.4 stalls

Reductions for transportation alternatives

10% for TMP: $60.4 \times 0.9 = 54.4$ stalls

Reductions for parking management

20% for unbundling: $54.4 \times 0.8 = 43.5$ stalls

Subtract two car parking stalls for inclusion of eight bike stalls:
 $43.5 - 2.0 = 41.5$ stalls

FINAL MINIMUM REQUIREMENT **42 stalls**
MINIMUM PARKING RATIO **0.7 stalls per unit**

6.2 Sample Shared Parking Agreement

excerpt from "Shared Parking in the Portland Metropolitan Area,"
prepared for Portland Metro by Stein Engineering

Shared Parking

Appendix B

Appendix B: Model - Shared Use Agreement for Parking Facilities Effective: _____

This Shared Use Agreement for Parking Facilities, entered into this ____ day of _____, between _____, hereinafter called lessor and _____, hereinafter called lessee.

In consideration of the covenants herein, lessor agrees to share with lessee certain parking facilities, as is situated in the City of _____, County of _____ and State of _____, hereinafter called the facilities, described as:

[Include legal description of location and spaces to be shared here, and as shown on attachment 1.]

The facilities shall be shared commencing with the ____ day of _____, _____, and ending at 11:59 PM on the ____ day of _____, _____, for [insert negotiated compensation figures, as appropriate]. [The lessee agrees to pay at [insert payment address] to lessor by the ____ day of each month [or other payment arrangements].]

Lessor hereby represents that it holds legal title to the facilities

The parties agree:

1. USE OF FACILITIES

This section should describe the nature of the shared use (exclusive, joint sections, time(s) and day(s) of week of usage.

-SAMPLE CLAUSE-

[Lessee shall have exclusive use of the facilities. The use shall only be between the hours of 5:30 PM Friday through 5:30 AM Monday and between the hours of 5:30 PM and 5:30 AM Monday through Thursday.]

2. MAINTENANCE

This section should describe responsibility for aspects of maintenance of the facilities. This could include cleaning, striping, seal coating, asphalt repair and more.

-SAMPLE CLAUSE-

[Lessor shall provide, as reasonably necessary asphalt repair work. Lessee and Lessor agree to share striping, seal coating and lot sweeping at a 50%/50% split based upon mutually accepted maintenance contracts with outside vendors. Lessor shall maintain lot and landscaping at or above the current condition, at no additional cost to the lessee.]

3. UTILITIES and TAXES

This section should describe responsibility for utilities and taxes. This could include electrical, water, sewage, and more.

-SAMPLE CLAUSE-

[Lessor shall pay all taxes and utilities associated with the facilities, including maintenance of existing facility lighting as directed by standard safety practices.]

4. SIGNAGE

This section should describe signage allowances and restrictions.

-SAMPLE CLAUSE-

[Lessee may provide signage, meeting with the written approval of lessor, designating usage allowances.]

5. ENFORCEMENT

This section should describe any facility usage enforcement methods.

-SAMPLE CLAUSE-

[Lessee may provide a surveillance officer(s) for parking safety and usage only for the period of its exclusive use. Lessee and lessor reserve the right to tow, at owners expense, vehicles improperly parked or abandoned. All towing shall be with the approval of the lessor.]

6. COOPERATION

This section should describe communication relationship.

-SAMPLE CLAUSE-

[Lessor and lessee agree to cooperate to the best of their abilities to mutually use the facilities without disrupting the other party. The parties agree to meet on occasion to work out any problems that may arise to the shared use.]

7. INSURANCE

This section should describe insurance requirements for the facilities.

-SAMPLE CLAUSE-

[At their own expense, lessor and lessee agree to maintain liability insurance for the facilities as is standard for their own business usage.]

8. INDEMNIFICATION

This section should describe indemnification as applicable and negotiated. This is a very technical section and legal counsel should be consulted for appropriate language to each and every agreement.

-NO SAMPLE CLAUSE PROVIDED-

9. TERMINATION

This section should describe how to or if this agreement can be terminated and post termination responsibilities.

-SAMPLE CLAUSE-

[If lessor transfers ownership, or if part of all of the facilities are condemned, or access to the facilities is changed or limited, lessee may, in its sole discretion terminate this agreement without further liability by giving Lessor not less than 60 days prior written notice.

Upon termination of this agreement, Lessee agrees to remove all signage and repair damage due to excessive use or abuse. Lessor agrees to give lessee the right of first refusal on subsequent renewal of this agreement.]

10. SUPPLEMENTAL COVENANTS

This section should contain any additional covenants, rights, responsibilities and/or agreements.

-NO SAMPLE CLAUSE PROVIDED-

IN WITNESS WHEREOF, the parties have executed this Agreement as of the Effective Date Set forth at the outset hereof.

[Signature and notarization as appropriate to a legal document and as appropriate to recording process negotiated between parties.]

6.3 Best Practices in On-Street Parking Management

Rick Williams Consulting (June 26, 2013)

I. BEST PRACTICES IN ON-STREET PARKING MANAGEMENT

The very phrase “parking management” can elicit an emotional response from stakeholders. Easy access to a parking space near a favorite store or restaurant for customers, or close to work or home for employees and residents, can define one’s perception of an area or experience. When on-street parking is unmanaged all parking is inefficient (on and off-street). Also, conflicts occur, raising anxieties that set a negative tone for the area. Creating and implementing a parking plan will allow your community to:

Why Manage On-Street Parking?

- Use A Limited Resource Efficiently*
- Reduce Traffic Congestion and Air Quality Emissions*
- Create Order and Reduce Anxiety*
- Use Parking As A Tool To Encourage Transportation Options*
- Maximize/Manage Parking Turnover*
- Parking Improvement Districts*
- Get the Right People In the Right Parking Space*

a. Use a Limited Resource Efficiently

On-street parking is by nature limited, and off-street parking is expensive, especially when cities transition from surface to structured parking. Excluding land, costs can range from \$5,000 per stall for a paved surface lot to \$32,000 or more per stall for a well-designed parking garage. These development costs may be passed along to the consumer, resulting in higher commercial lease rates or less affordable housing. Right-sizing parking when a development is first planned can save millions of dollars, and managing the supply effectively ensures that when new parking is added it is supported by demand.^{1,2}

Not only are parking spaces expensive, the amount of land required for parking can be expansive, resulting in sprawling development patterns that discourage walking trips and impede better land uses than storing vehicles. Furthermore, drivers unnecessarily waste time, gas (and add associated greenhouse gases), and contribute to traffic congestion if they must circle blocks looking for parking spots. Better management of your finite parking resources can pay dividends beyond simple cost savings.

¹ Carl Walker, “Parking Structure Cost Outlook for 2009,” in *Industry Insights, First Quarter 2009* (1-2). Available online at < http://www.carlwalker.com/wp-content/uploads/2012/09/2009_Q1.pdf>.

² Donald Shoup, *The High Cost of Free Parking* (Planners Press, 2005), 211.

b. Create Order and Reduce Anxiety

Customers, visitors, employees, and residents appreciate a structure that simplifies decision-making and makes their visit effortless and efficient. When the parking system lacks order, anxiety and frustration increase, creating a negative perception of the area and affecting a customer’s decision as to whether a return trip is worth the trouble or not.



c. Use Parking As a Tool To Encourage Transportation Options

Most experts agree that there is a direct relationship between how parking is managed and whether people will access the area using transit, biking, walking, or ridesharing.³ Use of these options promotes greater efficiency in the parking supply, particularly if long-term parkers (i.e., those who stay more than 4 hours) switch from driving to another mode. Reduced demand for long-term parking improves turnover rates, which increases the economic value of the parking stall.

In addition to freeing up parking for priority users, commuters who use transportation options derive wellness benefits that lead to healthier and happier employees and reduced health care and retention costs for employers. A 2005 study by David Nieman found that employees who bike, walk, or ride transit to work can increase productivity by 50% and cut sick time in half.^{4, 5}

d. Maximize and/or Manage Parking Turnover

A car parked at an on-street stall all day turns over once. Cars parked in timed stalls (e.g. 2 Hours) are designed to turnover 5 – 8 times (when enforced). As such, the actual vehicle capacity of a stall is in direct relationship to how it is prioritized to be managed. This is not to say that high turnover is always the “priority” for parking, but it does indicate that if turnover is desired, then management of a stall is essential.

³ Richard J. Kuzmyak, “Chapter 18 – Parking Management and Supply,” in TCRP Report 95: (Washington, D.C.: Transportation Research Board, 2004), 18-22. Available online at <<http://www.trb.org/Publications/Blurbs/153345.aspx>>

⁴ David Nieman, et al, “Immune Response to a 30-Minute Walk,” in Medicine and Science in Sports and Exercise (Indianapolis: ACSM, 2005), 57-62.

⁵ Lilah Besser et al, “Walking to Public Transit: Steps to Help Meet Physical Activity Recommendations,” in American Journal of Preventive Medicine, (Philadelphia: Elsevier, 2005), 273-280.

e. Parking Improvement Districts

Parking should be managed first and foremost to ensure access for priority users. If parking is priced, income generated through parking charges can (and arguably should) be reinvested in the locations where they are collected. Net revenues may be reinvested in main street redevelopment programs, landscaping, promotions, and investments that improve alternative transportation access to the area. This directly benefits the district or neighborhood impacted by parking and parking charges, and often makes paying a fee easier to swallow.

f. Get The Right People In The Right Parking Space

In a 2008 poll in Everett, Washington, downtown business owners were asked, “Where do you and your employees park on a typical business day?” Respondents believed that 80% of their employees had either parked in off-street facilities or had arrived by alternative modes. When asked “Where do your business peers and their employees park on a typical business day?” the same 80% believed they used on-street parking.⁶ The irony of the Everett study was that while everyone agreed that employees parking on-street was a problem, none of the businesses would associate themselves with contributing to the problem. This also reinforces a best practices message that: *If employees aren’t walking, customers are. If employees are not parking off-street, then off-street supply is likely underutilized.*

With a clear understanding of who has priority to a particular parking spot (on- or off-street), you can develop policies that get the right user to the right space.

Questions to ask yourself, affected stakeholders and decision-makers include:

- Who should have priority access to on-street parking?
- If parking is constrained, who gets bumped to guarantee the priority user is accommodated, and what options need to be developed for them?
- Should employees or residents be allowed to park on-street in commercial business areas?
- Should employees be allowed to park on-street in residential areas?
- What is the purpose of off-street parking?
- What is the role of the City in providing parking for visitors, employees, and residents?

There are no right or wrong answers to these questions. Rather, achieving consensus among stakeholders and incorporating that consensus into a management policy is of the greatest importance. If priorities are clearly articulated, then parking management strategies to support those priorities are easier to develop and implement.

⁶ Barney & Worth and Rick Williams Consulting, “City of Everett, Washington CBD Parking Management Study,” December, 2007.

II. THE ROLE OF ON-STREET PARKING

As stated above, on-street parking is a finite supply of parking that is most preferred by users. If priority users are prevented from using the supply, then the parking resource is inefficient, contributes to conflicts between users and is not supportive of off-street parking or alternative mode options. As such, it is important to reiterate that the role of on-street parking in any transportation plan should be to ensure access to defined priority users. If on-street parking is intended for visitor access, it is likely that it should be time limited. If the priority is for employees or residents, then systems need to be developed to ensure that employees and residents are “identified” (e.g., permits) so that other long-term parkers (i.e., employees from out of district, park and ride users) are not monopolizing supply. This becomes more apparent and critical in areas that have high constraints for parking access. Unfortunately, most cities tend to focus on regulation of new parking developed off-street (a code based approach) and do not take active measures (outside of downtowns) to manage public on-street parking assets (a management based approach). There are many factors that underlie this situation – cost, time, determining bureau or agency responsibility, etc. – but the basic relationship between an efficient system of access and land use is best served by good on-street parking management.

a. Establishing “Priority”

The most commonly held basis for determining priority use of parking is zoning. For instance, if base zoning in an area is residential, then the “priority” for access to any on-street parking in the zoned area would be residents and their guests. If the area is zoned commercial or mixed use, with requirements for active ground floor uses, then the “priority” would be for short-term visitor access to ground floor uses. If an area were zoned industrial, the priority could be for long-term employee parking associated with industrial businesses. Of course, there are variations to this, but the point remains that zoning is a very simple platform from which to begin the process of prioritizing parking. To this end, management strategies are directly tied to the priority (e.g., residential/business permit programs for neighborhoods/industrial areas and timed/priced parking in retail/commercial areas were turnover best serves the adjacent land uses).

To a very high degree, on-street parking management serves to direct and guide users of an area to the appropriate access points, whether that is on-street, off-street or into an alternative mode. On-street parking is a critical gateway point for access to a city. If it is well prioritized and well managed, all other points and modes of access are more efficiently served.

b. Toolbox of Management Strategies for On-street Parking

There are different levels of management control for on-street systems. The type of control should be “calibrated” to the parking priority and level of demand. Different types of on-street strategies include:

- Unregulated (typical of residential and suburban areas)

- Time limited (e.g. 2 hour parking)
- By time of day (e.g., hours of enforcement)
- By permit (e.g., permit only)
- By permit and time stay (e.g., 2 hours or by permit)
- Priced (by hour, time of day, demand) using various technologies, e.g., meters, pay stations, pay by cell.

c. Enforcement

An enforcement program is a vital piece of your parking management plan, ensuring that the system is being used as intended. It should not, however, be viewed as a revenue stream, which can create an aggressive enforcement environment that deters visitors. Preferably, enforcement revenues are deposited not into your city’s general fund, but into a downtown enterprise fund that supports both the parking program itself and other investments in the area where fees are collected—for example, downtown beautification projects. Such reinvestments make parking fees more palatable overall.



Some cities may find it financially difficult to employ full-time parking enforcement staff. It’s important to note that the level of enforcement is less critical than simply conducting *some* form of parking compliance. Sixteen hours of enforcement a week is not as comprehensive as 40, but is exponentially better than none. Cities transitioning from a system with no monitoring can assign an existing staff position the responsibilities of part-time enforcement. To be most effective, the enforcement hours should be randomized.

It is imperative that cities understand that any controls beyond unregulated parking require a commitment to enforce. The glue that holds on-street parking management together is enforcement.

d. Is it necessary to Price On-street Parking?

In cities or districts that have long favored free parking, the decision to impose parking fees is a significant one. In areas that already charge for parking, the decision to raise rates may be a bit easier, but concerns about public response, competitiveness, and ease of management remain. These can be addressed through the establishment of clear priorities (as discussed herein), good data collection, documentation of constraints and conflicts (using the “85% Rule”⁷) and meaningful stakeholder participation and outreach.

⁷ An 85% occupation rate is widely recognized as an optimum for efficient use of public on-street parking because it provides the best balance between utilization and the number of cars “cruising” for unoccupied spaces.

Moving forward, consider the following questions as they relate a decision to price parking:

- Is there a continuing conflict between employees, residents and/or visitors for use of on-street spaces?
- Are off-street facilities underutilized?
- Can customers find parking within easy walking distance of their destination?
- Are businesses benefiting in foot traffic and sales because parking turns over at an effective rate?
- Is there a need or desire to expand parking supply and/or transportation options to increase capacity for access (with funds from pricing used to provide)?
- Are there programs and services that would better support visitor and business growth (marketing, streetscape improvements, wayfinding, etc.)?



Pricing is not the only strategy to encourage open parking spaces. Properly calibrated time limits, effective and reasonable enforcement, and good directions to available supply can maximize use of limited parking without pricing. The decision to price parking should be made in the context of intended outcomes. If outcomes are not being achieved, or cannot be achieved through other means, then pricing becomes an option. The decision to charge for parking should be made in the context of demand. High demand (85%+) lowers risk, low demand raises risks potentially associated with pricing.

e. Relationship to Off-street Parking

A well managed on-street parking system significantly influences off-street parking. By controlling access on-street to support specific priority users, while at the same time managing turnover and capacity; a city then:

- Effectively supports minimum and maximum parking standards (in code) by balancing the use of the off-street supply (e.g., if on-street is not available to employees, then off-street system is better utilized and right sized).
- Maximizes off-street supply by pushing non-priority users to available off-street parking.
- Maximizes alternative modes.
- If on-street parking is priced (as appropriate), it is more realistic and feasible to price off-street.
- Where public parking is in play, the interrelationship of management should be fully leveraged (i.e., time stays, enforcement, rates, etc.).

On-street parking has a significant impact on use of off-street supply. Most users prefer on-street parking when and where it is available. By maximizing its use for priority users, cities can better influence users into off-street supply, support right sizing parking, influence pricing systems and support other transportation modes as reasonable options to parking.

III. RESIDENTIAL/NEIGHBORHOOD PARKING PERMIT PROGRAMS

One dynamic of growing downtowns or business districts is the impact such growth can have on neighborhood residential areas that abut these commercial districts. Residential parking permit programs were first created in response to the recognition that traffic generation resulting from growth in adjacent commercial business districts caused high levels of parking congestion associated with commuters or visitors who would spillover into residential enclaves as a result of parking constraints within the business district or as means to escape parking pricing.



Residential and neighborhood parking permit programs are intended to ensure that on-street parking spaces remain available for local residents within a specific “permit district boundary” and may restrict parking for visitors, employees or “non-residents” during certain or all hours of the day and night. The programs generally contain standard elements and are “hunting licenses” that aid, but do not guarantee, finding street parking for residents. In other words, residential permits do not guarantee an on-street space in front of a specific residential address, but the entitlement to park within the permit district boundary.

Some cities limit/restrict the number of permits by address and/or whether the residential address has parking of its own (a driveway or garage) or a parking lot (in the case of multifamily residential). Most sell (or allot) daily guest permits, or graduate the cost of permits by number requested. Prices could also be tied to actual local supply or utilization.

In short, residential/neighborhood permit programs have proven effective in mitigating spillover and managing who uses parking in a specific area (i.e., “getting the right person in the right space.”).

a. Current Practices in Sample Cities

The firm of Rick Williams Parking conducted an environmental scan of eleven cities with residential/neighborhood permit programs. Cities examined included Corvallis, Hood River and Portland, OR as well as Aspen, CO, Boise, ID and Vancouver, WA.⁸ The following key themes emerge from the scans that are common to most programs:

⁸ The full list of cities surveyed were Aspen, Boulder and Denver, CO, Boise, ID, Corvallis, Hood River, and Portland, OR, Sacramento, CA, Kirkland, Seattle and Vancouver, WA.

1. The residential program limits permits to areas that are zoned residential and are subject to on-street parking space competition from non-resident commuters (employees) or visitors to adjacent area attractions; parking generators like adjacent commercial business/retail districts, hospitals or universities.
2. Most of the permit programs have minimum size or number of block faces required for consideration. In other words, the programs create a permit *district* rather than a block by block system of management.
3. None reserve specific parking spaces for specific residences, while some require that a vehicle be parked within a specific number of blocks of the registered address.
4. The majority of cities scanned require a resident petition process and Council concurrence. Some require occupancy data and parking surveys/studies to initiate.
5. The majority charge an annual fee for the permits (usually established at a level of City cost recovery).
6. The majority limit the number of permits per residence.
7. Enforcement is generally by complaint and random patrols combined with signage.



b. Outline of Sample Cities⁹

The scan of cities included both large and small jurisdictions, though the program parameters of the cities did not change markedly due to the size of the city. Find below a summary of five of the cities sampled. These “samples” are presented to provide the reader with a sense of how such a program could be established.

Boise, Idaho

Purpose of Residential Parking Permit (RPP) Program: The Boise program is established as part of the City Code. The program is “designated for those residential areas with a high percentage of “all day non-resident parkers”.

Zoning Limitations Associated with RPP Zone Areas: Limited to areas zoned residential.

Process to Establish or Modify an RPP Area: Boise requires a neighborhood petition process to initiate a request to form or modify a RPP area. Once the boundaries and parking control recommendations of the zone are established by the Public Works Department, City Council approval is necessary to create the zone.

⁹ Special thanks to William Timmer, Bluewater Project Management Services, LLC who has done extensive research on residential and neighborhood parking permit programs. This section is extensively informed by Mr. Timmer’s work.

Eligibility and Limitations associated with RPP Areas: Currently there are no established limits on the number of permits issued per residential address. The City ordinance governing the program reserves the authority for Council to establish limits in the future. A permitted vehicle must park within two blocks of the registered address.

Permit Cost: Permits are issued free of charge, with proof of identity, residential address and vehicle registration.

Boulder, Colorado

Purpose of RPP Program: In Boulder, an RPP is known as a Neighborhood Permit Parking Program (NPP). A NPP is a residential area where parking is restricted. It is a tool developed to balance the needs of all who park on Boulder streets, including residents, commuters and visitors. The plan was adopted as part of the City of Boulder Transportation Master Plan.

Zoning Limitations Associated with RPP Areas: Limited to residential areas.

Process to Establish or Modify an RPP Area: The process to start the establishment or modification of an RPP area requires a neighborhood petition from at least 25 residents. Following receipt of the petition, the City conducts a parking survey, develops a draft proposal with proposed boundaries and recommended parking restrictions. These recommendations include time limit restrictions for non-permit vehicles as well as hours of permit enforcement.

A neighborhood meeting is conducted to review and modify the draft proposal. This is followed by a Public Hearing before the Boulder Transportation Advisory Board. The Board recommendations and hearing comments are forwarded to the City Manager for the final zone creation decision.

Eligibility and Limitations associated with RPP Areas: Boulder issues up to 2 permits per residence plus two free guest passes. Businesses located in NPP Zones may purchase up to 3 employee parking passes. Only one of the zones permits purchase of a limited number of commuter parking passes. Permit parking is limited to the zone of issue.

Permit Cost: Residential passes cost \$17 per pass per year. Business employee passes cost \$75 per pass per year. Limited commuter passes cost \$78 per quarter.

Corvallis, OR

Purpose of RPP Program: It is a tool developed to manage the priority for parking on residential streets to ensure on-going access for residents of an area and their guests.

Zoning Limitations Associated with RPP Areas: Limited to residential areas.

Process to Establish or Modify an RPP Area: There are already three residential parking districts in Corvallis and the consultant could not find additional information on how new districts are established. As currently formatted, there are signs in each block indicating district "A", "B", or "C". The district establishes a zone where nonresidents are restricted in the amount of time they can park on the street. The time limit for parking in these districts without a permit is a maximum of two hours, one time per day. This is detailed in Corvallis' [Municipal Code 6.15: Residential Parking Permit Districts](#).



Eligibility and Limitations associated with RPP Areas: Each resident address is allowed a maximum of three permits. Permits issued for one district are not valid in the other two. For example, District A permits are not valid in either District B or C.

Permit Cost: Permits are \$15 each and are valid for one year, from September 1st through August 31st. New permits must be purchased each year. Daily Temporary Parking permits are available for guests visiting residences in any of the districts for more than two hours.

[Portland, Oregon](#)

Purpose of RPP Program: The purpose of the Portland RPP program is to limit non-resident parking in high parking occupancy residential neighborhoods adjacent to parking generators (e.g., business district, institution, hospital, etc.).

Zoning Limitations Associated with RPP Zone Areas: Limited to residential areas.

Process to Establish or Modify an RPP Permit Area: Portland has strict occupancy data-based criteria for establishing an RPP area. To start the process, a local neighborhood group, representing a minimum area for 40 block-faces or 8,000 linear feet of curb, needs to attest that peak parking occupancy exceeds 75% for at least 4 days per week, 9 months of the year. Additionally, 25% of the parked vehicles must be from outside of the proposed zone area.

Once City staff verifies the parking conditions, and the boundaries and parking controls are identified, approval of the formal RPP requires a resident petition process, a formal public meeting process and a resident vote with at least 60% approval. With successful neighborhood support, Council approval is needed to officially approve the zone.

Eligibility and Limitations associated with RPP Areas: There are currently no limits on the number of permits issued to a specific residential address. Permit parking is limited to the zone of issue.

Permit Cost: The annual permit fees are set as a function of the annual City budget process, with the objective to be cost neutral. The current fee is \$67.50 per year. Guest pass “booklets” can be purchased, with 10 Guest Passes per booklet.

Hood River, OR

Purpose of RPP Program: The purpose of the Hood River RPP program is to limit non-resident parking in high parking occupancy residential neighborhoods adjacent to parking generators.

Zoning Limitations Associated with RPP Zone Areas: All of the property in the proposed district is zoned R-1, R-2, or R-3.

Process to Establish or Modify an RPP Area: During the proposed hours of restricted parking, the number of vehicles of *non-residents parked legally or illegally* on a street in the district is equal to thirty percent (30%) or more of the legal on-street parking capacity of the street. The percentage of non-residential parking is determined by averaging the results of at least two surveys conducted on different days and at different times of the day but within the hours of restricted parking. The district boundary and the survey may be established and conducted by the proponents of the district, or by a person designated by the City Manager. The ultimate boundary is determined by the City Manager and City Council.

Once the survey is completed, the City Council holds a public hearing on any proposed designation, revision, or repeal of a residential parking district. The public hearing will be held only after the City Manager has determined that the proposed district could satisfy the criteria for designation and notice has been sent to the residents in the proposed district and within one hundred feet (100 ft.) of the proposed district. Once the district is approved, the City Manager is responsible for administration of the district and permits.

Eligibility and Limitations associated with RPP Areas: Residential parking district permits are only issued to residents of the parking district. Each valid “dwelling unit” in the parking district is eligible up to 2 permits. In addition, each dwell unit receives 2 short-term visitor passes. Also, the applicant must demonstrate that there is little or no off-street parking and/or is unable to develop the property to provide for legal off-street parking.

Permit Cost: The annual permit fees are set as a function of the annual City budget process.

c. Applicability to Your City

The issue of commercial parking spillover into residential neighborhoods is both an issue of access/congestion and livability. It is prudent for any city to, at minimum, develop a policy and process for establishing residential parking permit programs. With a policy “on the books” residents are given the opportunity to work with the City to initiate a program to respond to their perception of need. Also, to develop a policy and process now places the City in the position of not “forcing” a program on

residents, rather residents are asking the City to increase parking management in their neighborhood. To get a policy and process in place ahead of anticipated growth is strategic and sends a message that the City will be responsive rather than reactive to the potential impacts of development in the downtown.

Based on review of other cities, the following guidelines are recommended for development of a resident parking program in most cities:

1. Establish a policy goal that clarifies the purpose intent and priority for parking in areas zoned residential and adjacent to the commercial business districts. The priority for parking in these areas should be for residents and their guests. Other uses are viewed as secondary priorities and are to be discouraged, especially if they create constraints that would limit access to parking by residents and their guests.
2. Attempting to numerically define “constraint” (as do Boulder and Hood River) may place an undue burden on a residential community or city to fund a study. Cities like Boise, Corvallis and Portland base the determination for measuring the severity of the parking problem on a residential petition. In other words, if parking access is enough of an issue for residents, then the act of conducting a successful petition (under defined criteria) is enough to substantiate the need for a program.
3. Establish criteria for a petition process. This could include:
 - Minimum boundary requirement (e.g., 20 block faces or 4,000 linear feet). It is important to ensure that an RPP is viewed as a “district” program and not micro management of individual residential block faces.
 - Percentage in favor (e.g., 51% of all residential addresses in the “district” petition in favor of the district.
4. Establish a cost (or not). Most cities assess an annual fee that is based on City cost recovery. Of the cities surveyed only Boise, Sacramento and Vancouver provided their programs free of charge. This may be due to the fact that the adjacent commercial districts have paid parking (i.e., parking meters) and the cost of the residential program is absorbed within the paid parking program.
 - Given that the process to establish an RPP district would be by petition (i.e., residents asking for a program) it would be reasonable to assume that a cost recovery fee to cover City processing and management would be acceptable.

5. Eligibility. The City should determine whether residents in an approved district that have off-site parking should be (1) allowed a permit or (2) pay a higher permit fee.
6. Management and enforcement. Most cities manage their programs by requiring the display of valid permits and signage that limits/restricts use by non-residents combined with fairly stiff fees for violation. This allows for enforcement to be (1) by complaint, (2) random or infrequent and (3) low cost. This seems to be the model in most cities evaluated and input from residents (as to effectiveness in controlling spillover) is positive.

IV. SUMMARY

On-street parking management should be a fundamental strategy used by cities to ensure an efficient system of access and a tool to facilitate land use, access and mode choice goals. Most cities do not do a good job of managing on-street systems, primarily due to a lack of commitment to enforcement and an overreliance on code to influence (usually private) off-street parking development.

A residential parking permit policy and process is a useful strategy for a City to have within its parking management tool box. A program that is “resident driven” and district based puts the City and City Council in a position to respond to a neighborhood request in a proactive and responsive manner. Creating a policy and process in advance of new development in the commercial district is also strategic and will reduce time and costs in the long run.

