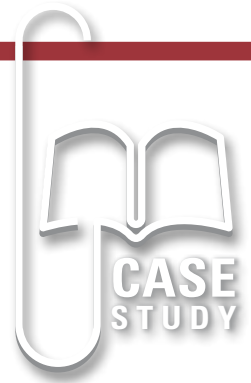




MINIMUM EFFORTS



How a city successfully addressed minimum parking requirements for multifamily properties.

By Daniel Rowe

Multifamily residential buildings often provide too much parking, which can be an impediment to achieving a wide range of community goals. King County Metro Transit (Metro), Seattle, Wash., recently embarked on a project to rewrite the rules for multifamily parking.

Through its Right Size Parking Project, Metro developed data-driven tools to estimate parking use based on context-sensitive land use, transit, and building characteristics. It engaged planners and decision makers to assess existing zoning code and incorporate market-based mechanisms and parking management strategies. It also joined with financiers, developers, and property managers to understand how pricing and transportation demand management (TDM) techniques can support smart growth development and more affordable housing. Together, this multidisciplinary approach is providing the tools needed to balance parking supply with competing interests while achieving economic development and community goals alike.

A grant from the Federal Highway Administration's Value Pricing Pilot Program provided Metro with the opportunity to show the rest of the country how multifamily parking reform can become a reality.

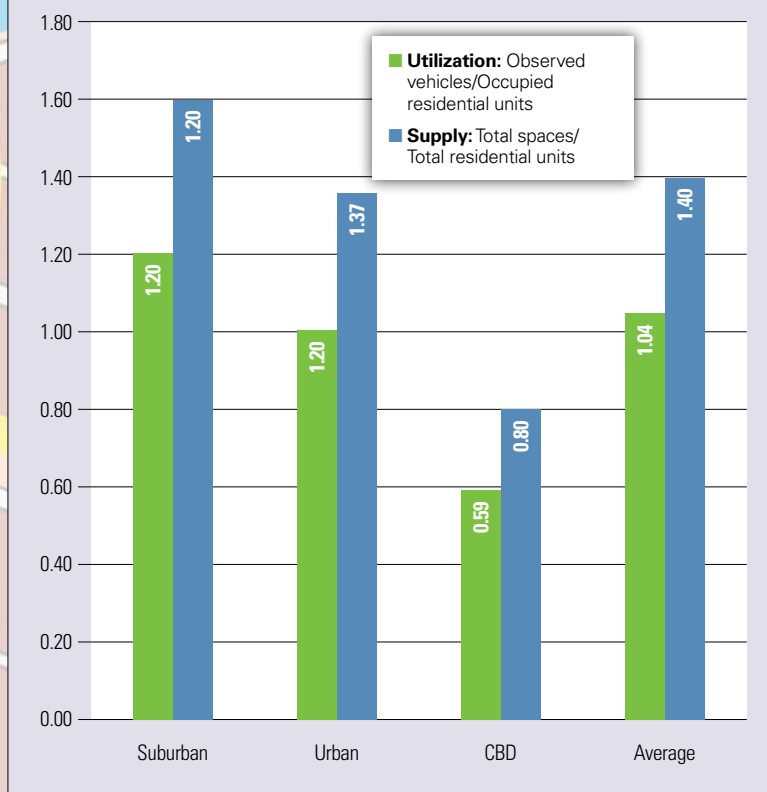
The Cost of Oversupply

Based on data collected from this project, parking in multifamily buildings in King County is oversupplied by an average of 0.4 stalls per dwelling unit. This accounts for approximately \$400,000 in unused parking costs for an average development.

As we know, an oversupply of parking can have deleterious effects on economic development, consumers, and the community. The high cost of parking construction and maintenance drives construction costs up and reduces the supply of affordable housing. Unless parking costs are unbundled, or separated from the cost of housing, households are forced to pay for parking whether they need it or not.

Even when parking costs are unbundled, developers can almost never charge the full cost-recovery price for parking due to concerns about sticker shock from their customers. Parking makes up 10-20 percent of the cost to construct multifamily buildings in King County, but only 6 percent is recovered through parking charges. This cross-subsidization causes a distorted market for parking and reduces the ability of pricing to be used as a tool to manage parking demand. Lower-income households are especially burdened by this distortion, as they typically have lower rates of auto ownership and spend a larger percentage of their income on housing.

FIGURE 1
2012 King County, Washington
Parking Utilization Field Work Findings



Another issue: Excess parking leads to increased land consumption and sprawl, lower-density development, and greater distances between buildings, which can deter walking, transit use, and efficient transit service operations. On the other hand, providing too little parking can also be a significant risk in terms of real estate marketability and effects on on-street parking in nearby communities.

These problems suggest that the provision of parking should be right-sized and strike a delicate balance between supply and demand by providing parking that will ensure real estate marketability and minimize effects on on-street parking, without presenting a barrier to meeting community goals.

Existing parking data resources and tools tend to be inappropriate for growing suburban and urban communities, especially when they don't account for differences in transit access, land use, demographics, and building types. To provide better quantitative tools to predict parking use at multifamily sites, especially in complex, growing suburban settings, Metro completed an extensive data collection and modeling effort.

The process started by collecting data from more than 200 properties in King County, representing a variety of location and housing types. Utilization field data was collected using Institute of Transportation Engineers (ITE) standards; parking counts were completed during peak parking hours for multifamily properties during

non-holiday weekdays.

The results were consistent with many empirical studies from around the county: parking was oversupplied in all place type designations (see Figure 1). Using regression analysis, Metro then found the seven most influential variables in predicting parking use—five pertained to the property or development characteristics, and two focused on the built environment, specifically access. A statistical model was constructed with an R-square value of 81.0 percent, meaning that 81 percent of the variation of multifamily parking use could be explained through the seven variables.

With help from the Center for Neighborhood Technology, the King County Multifamily Residential Parking Calculator (rightsizeparking.org) was created to provide web-based access to the research (see Figure 2). The website tool condenses complex research findings into a simple map-based format that's accessible to a wide variety of stakeholders. Using the statistical model to estimate parking use, the site illustrates outputs for most developable parcels in King County. Users have the ability to select a parcel, input details specific to a proposed development, adjust factors of the built environment, and see the new estimated parking use as an expression of vehicles per dwelling unit.

The ability to alter these characteristics and compare the effects of alternative scenarios enables stakeholders making economic, regulatory, and community decisions about development to weigh factors that will affect parking use at multifamily housing sites.

Goals and Results

Parking regulations that allow parking supply to be balanced with actual demand can help promote community goals and create a rational market for priced parking. Parking codes may not be up to date in many King County municipalities, 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 varies based on unit type, occupant income, proximity to transit, or other contextual factors.

To support cities that were looking to update parking code, Metro developed model code language using best practices from around the county and results from the project's research phase. The end result is a tiered recommendation: In the best case, cities would adopt a market-based approach where parking requirements are removed and the amount of parking supplied in multifamily projects is determined by the developer's determination of customer/tenant needs. This market-based approach is recommended to most efficiently achieve community goals, as it can help avoid overbuilt parking caused by minimums that are set higher than demand. It is important to note that a market-based strategy is most effectively used with on-street parking management to mitigate potential parking spillover to on-street spaces.

FIGURE 2**King County Multifamily Residential Parking**

Minimum requirements for off-street parking are often deeply entrenched in most land use codes, and completely removing them is likely to be challenging, both procedurally and politically. For these reasons, the second option—a context-based approach—is also outlined as a flexible way to regulate parking. Well-executed, this approach sets minimums at a sweet spot that doesn't cause overbuilding, reduces parking spillover risk to the surrounding community, and reduces the need for on-street parking management.

Most municipalities already have code that incorporates some features of a context-based approach, but Metro's model code work provides a menu of options that allows planners to pick and choose the options that fit best with their unique built environment and political climate.

Building from the model code developed by Metro, a series of policy change pilot projects will be launched in 2014 to adjust parking minimums, manage on-street parking, incorporate shared parking programs, and assess residential permit programs. Jurisdictions in King County will apply the findings from the Right Size Parking Project and lead by example.

Looking Ahead

In King County, anywhere between 25 and 100 percent of the cost to build parking is absorbed into the cost of housing. As stated earlier, this cross-subsidization can decrease housing affordability, distort the market for parking, and present serious negative effects to lower-income housing dwellers. Metro is working with developers, financiers, and property managers to explore how pricing and TDM techniques can help reduce the cross-subsidization of parking and facilitate a larger market sector of residents with lower automobile ownership.

At a minimum, unbundling or separating the costs of parking from housing is an approach to reduce cross-subsidization and supply parking more efficiently. This reduces incidents of individuals paying for unneeded or unused parking as part of their housing costs.

Metro's research found that urban market-rate projects include a parking price elasticity calculated at -0.47 , which indicates that if parking price was increased by 10 percent, parking use would decrease by almost 5 percent. This relationship suggests that developers or property managers looking to lower parking use can combine pricing and TDM in urban areas where viable alternatives to owning a car exist. Similar to Metro's aforementioned policy change pilots, the agency will look for multifamily developers and managers to partner in demonstrating how parking pricing can be combined with TDM to reduce parking needs, reduce household expenditures, and support increased transit, bike, and walk trips.

This project has enabled Metro to develop new tools to support both public and private sector parking reform. These tools can be used by local stakeholders to help shape development in a way that optimizes parking supply and supports transit use. While the tools are intended to help support and guide parking supply and management decisions, they should not be viewed as a definitive answer. Rather, they should be seen as a resource to inform discussions, weigh the factors affecting parking demand, help consider the proper provision of parking, and provide a template and process to be used in similar analyses and applied projects in other regions. By following the guidance of locally credible and context-sensitive data on parking demand, we have the opportunity to support economic development, reduce housing costs, improve the pedestrian environment, increase transportation choices, and encourage public use of transit, rideshare, biking, and walking through parking supplies that are right-sized in new multifamily developments.

In King County, Metro will partner with local jurisdictions and developers to put the research into practice and demonstrate the benefits of parking strategies outlined in our project. It is our hope that cities around the country will expand on our work and continue to support parking reform with the goal of creating more sustainable, transit-friendly communities of the future.



DANIEL ROWE is a transportation planner with King County Metro Transit. He can be reached at daniel.rowe@kingcounty.gov or 206.263.3586.