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 To: King County Metro, c/o Jemae Hoffman, VIA
 From: Michael George
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RE: Draft Multi-family Park & Ride Business Model Considerations

Introduction

Kidder Mathews, as part of a team led by VIA Architecture, produced this technical memo for King County Metro’s Park & Ride Pricing in Multi-family Developments project.

The project aims to connect transit riders that use P&R facilities with vacant parking spaces in multi-family buildings. The purpose of this memo is to outline the strengths and weaknesses of three preliminary business models currently being considered for further development.

Summary Findings

Three priced multi-family Park&Ride (P&R) business models are currently under consideration,

- a private model,
- a public (transit agency led) model, and
- a public/private hybrid model.

The table below shows the degree to which each model is anticipated to meet seven primary objectives.

Objective	Private Model	Public Model	Hybrid Model
Is the model financially self sustaining?	Yes	Unlikely	Potentially
Does the model increase ridership by offering P&R spaces at a price and level of convenience that attracts transit users?	Potentially	Yes	Likely
Does the model provide enough incentive (financial or other) to attract multi-family property owners?	Potentially	Likely	Likely
Does the model reduce the need to build new P&R spaces?	Potentially	Yes	Likely
Does the model promote social equity?	Potentially	Yes	Likely
Does the model promote shared parking?	Yes	Yes	Yes
Does the model catalyze the market for priced parking?	Likely	Yes	Yes

- In general, the less public investment a model requires the less control the Transit Agency (Agency) has over the program. For example, the public model gives the Agency

the most control over program implementation decisions such as pricing, but requires the most public subsidy. The private model requires the least Agency investment, but also gives the Agency the least control over program implementation.

- All three models help catalyze the market for priced parking, and promote shared parking.
- The private model's main advantage is that it is financially self sustaining. The main disadvantage is that the Agency has no way to encourage property owners to lease spaces to transit riders (except, perhaps, through some transit system advertising or other promotion) instead of other users who may be willing to pay more for parking; for example, commuters working in nearby buildings. Other disadvantages of the private model are that it doesn't necessarily increase transit ridership, as it may only attract buildings in areas that already have a strong market for priced parking, it doesn't necessarily reduce the need to build new traditional P&R facilities, and it doesn't necessarily promote social equity.
- The public model gives the Agency control over program implementation, and can meet goals of increasing transit ridership, promoting social equity, and reducing the number of traditional P&R spaces required to meet demand. Assuming sufficient public subsidies are available, this model can operate in markets where parking revenue alone wouldn't support the program. The main disadvantage of this model is that it relies on long-term public subsidy, which also limits scalability.
- The hybrid model gives the Agency some control over program implementation, helping it to meet its goals of increasing transit ridership, promoting social equity, and reducing the number of traditional P&R spaces required to meet demand. This model can operate in markets where parking revenue alone wouldn't support the program if the Agency decides to subsidize the spaces. The main disadvantage of this model is that it relies on public subsidy in markets where parking revenue isn't sufficient to cover the cost of the program and generate a profit to the building owner.
- Preliminary pro forma work concludes that the general concept of a priced multi-family P&R program has the potential to generate a profit; however, additional data collection and stakeholder input is needed to support this finding.

Business Model Description & Comparison

This section of the memo describes the strengths and weaknesses of the three business models under consideration for further development. In addition to the seven primary objectives addressed here, a more complete list of considerations is included in Appendix A.

Private Business Model

The private business model is one in which a technology and/or a parking management company leverages mobile technology that allows users to locate, reserve, and pay for parking

in real time. The company is also responsible for soliciting parking spaces from building owners and marketing the program to transit riders. In this model, the building owner is responsible for managing and maintaining the spaces. The following describes the degree to which the private model supports each of the project's main objectives:

1. Is the model financially self sustaining? Yes. This model requires no public subsidy and relies on parking revenue alone to sustain the program financially.
2. Does the model increase ridership by offering P&R spaces at a price and level of convenience that attracts transit riders? Potentially. Although the program would increase the number of available parking spaces, there is nothing dictating that the parking be located near transit, or that priority access be given to transit riders.
3. Does the model provide enough incentive (financial or other) to attract multi-family property owners? Potentially. In areas where demand for parking is high, the model may generate enough parking revenue to justify the cost of program participation. However, there is nothing keeping building owners from leasing spaces to non-transit riders. In areas with abundant free or cheap parking, parking revenue alone may not be sufficient to justify the cost associated with program participation.
4. Does the model reduce the need to build new P&R spaces? Potentially. While the business model may relieve P&R demand pressure in certain areas, the Agency can't count on the spaces being dedicated to P&R use. For example, a building owner may be motivated to lease vacant spaces to commuters working in nearby buildings if it generates more parking revenue.
5. Does the model promote social equity? Potentially, but only in situations where the market happens to support the program in ways that align with social equity goals. The Agency has little control over where the spaces are located, the hours/days the parking is made available, who is given access, and how the parking is priced.
6. Does the model promote shared parking? Yes. This model encourages building owners to allow non-residents access to vacant parking spaces.
7. Does the model catalyze the market for priced parking? Likely. This model encourages building owners to price vacant parking spaces in markets that are able to support priced parking, but that did not previously charge for parking.

Public Business Model

The public business model is loosely based on King County's existing lease-lot program. In this model, the Agency leases parking spaces from multi-family property owners then re-leases the spaces directly to transit riders. The Agency is responsible for most elements of this program, including marketing the program to both building owners and transit riders, and taking reservations and payments. The building owner is responsible for managing and maintaining the physical parking spaces. The following describes the degree to which the public model supports each of the project's main objectives:

1. Is the model financially self sustaining? Unlikely. In some markets parking revenue may be sufficient to generate adequate profit to the building owner and cover the Agency's cost of running the program. In other markets however, the Agency may have to cover the cost of running the program and charge transit riders less for parking than it costs the Agency to lease the spaces from the building owner.
2. Does the model increase ridership by offering P&R spaces at a price and level of convenience that attracts transit riders? Yes. This model allows the Agency to target buildings that are convenient to transit and are in markets that are underserved by existing P&R facilities. It also allows the Agency to dictate the price charged to transit riders and the days/times that the spaces are available for P&R use.
3. Does the model provide enough incentive (financial or other) to attract multi-family property owners? Likely. However, this depends on how much subsidy is needed to make the program profitable to the building owner relative to the amount of subsidy the Agency is willing to provide.
4. Does the model reduce the need to build new P&R spaces? Yes. This program has the potential to relieve P&R demand pressure in markets with an insufficient number of traditional P&R spaces.
5. Does the model promote social equity? Yes. The Agency could target underserved neighborhoods and reserve parking for lower paid workers who tend to have little flexibility in their work schedule.
6. Does the model promote shared parking? Yes. This model encourages building owners to allow non-residents access to vacant parking spaces.
7. Does the model catalyze the market for priced parking? Yes. This model could encourage building owners to price vacant parking spaces in markets that did not previously charge for parking.

Hybrid Business Model

There are a number of potential hybrid models which combine elements of both the public and private models. The hybrid model currently under consideration is one in which the Agency solicits parking from building owners for program inclusion, runs the program, collects parking fees, and vets transit riders. The building owner agrees to dedicate a certain number of spaces for P&R use, and manages and maintains the parking spaces. Unlike the public model, the Agency does not lease spaces directly from the building owner. Ideally this model would not require the agency to subsidize P&R spaces; however, it does give the Agency the flexibility to provide subsidy in situations where parking revenue alone does not generate enough profit to attract building owners. This subsidy could take the form of a set subsidy per rented stall or payment for the infrastructure needed to implement the program. The following outlines how well this model meets the project's main objectives:

1. Is the model financially self sustaining? Potentially. In some markets parking revenue may be sufficient to generate an adequate profit to the building owner and cover the Agency's cost of running the program. In other markets, however, the Agency may have

to cover the cost of running the program and/or provide subsidy to the building owner to create sufficient profit.

2. Does the model increase ridership by offering P&R spaces at a price and level of convenience that attracts transit riders? Likely. This model allows the Agency to target buildings that are convenient to transit, and that are in areas underserved by existing traditional P&R facilities. In situations where the Agency doesn't subsidize the parking however, it may have little control over the price charged to the transit user. In markets with priced parking, it may also be difficult to attract building owners to the program if they can generate more parking revenue by leasing spaces to non-transit users.
3. Does the model provide enough incentive (financial or other) to attract multi-family property owners? Likely, however this depends on the how much subsidy is needed to make the program profitable to the building owner relative to the amount of subsidy the Agency is willing to provide.
4. Does the model reduce the need to build new P&R spaces? Likely. This program has the potential to relieve P&R demand pressure in markets with an insufficient number of traditional P&R spaces.
5. Does the model promote social equity? Likely. The Agency could target underserved neighborhoods and reserve parking for lower paid workers who tend to have little flexibility in their work schedule.
6. Does the model promote shared parking? Yes. This model encourages building owners to allow non-residents access to vacant parking spaces.
7. Does the model catalyze the market for priced parking? Yes. This model could encourage building owners to price vacant parking spaces in markets that did not previously charge for parking.

Financial Feasibility

A pro forma based on one possible variation of the hybrid model described above was used to test the financial feasibility of the generic priced multi-family P&R concept. This pro forma was run at a high-level with the understanding that cost and expense estimates would be refined in future work. The key assumptions are bulleted below.

- The building owner dedicates 50 parking spaces to the P&R program.
- Spaces are leased to P&R users for \$3 per day.
- A fee equal to 25% of the gross parking revenue is built into the model to cover the cost of contracting with a parking operator and/or parking technology firm. The firm is responsible for managing the day to day operations and working with building owners to set up each facility to meet program requirements. The remaining revenue goes to the building owner.
- All costs and expenses related to managing, maintaining, and upgrading the parking facility are the responsibility of the building owner.

- Upfront costs equal to \$43,000 are required to retrofit the parking facility to accommodate outside transit users and convert it from an uncontrolled (gated) facility to a controlled facility. It's worth noting that this is likely more upfront investment than will be required at many facilities. For example, some uncontrolled facilities may remain uncontrolled, and technology could be developed to allow the program to tap into existing access systems at facilities that are currently controlled.

The scenario presented above generates a 76% Return-on-Equity (ROE); however, ROE is highly sensitive to input adjustments, and therefore should be used with caution. A better measure may be the resulting increase in Net Operating Income (NOI), which in this case is roughly \$13,800 per year. A positive NOI shows the potential of the concept to generate a profit; however, it is not certain that this is enough profit to attract building owners. The NOI increases with the number of spaces dedicated to the program. For example, the NOI increases to about \$26,600 when the number of spaces is increased from 50 to 75 spaces. The pro forma, including all assumptions, is presented in Appendix B of this document.

Next Steps

Data Collection

The following bullets outline additional data collection needed to further refine the business models.

- Although preliminary work shows that the multi-family P&R model has the potential to generate a profit to building owners, it is unclear what the minimum profit threshold is to make the perceived risk and effort of participation worthwhile. Understanding this minimum profit threshold will help determine the number of available P&R spaces needed to make a building viable, and the minimum amount of revenue that each space needs to generate.
- More research on cost and expense assumptions used in the pro forma is needed. One particularly important assumption that needs more data to support it is the portion of each expense item that is associated with program participation, versus the portion that remains fixed.
- Every parking facility is unique in terms of its configuration. Some parking facilities are already set up to accommodate outside parkers, while others are not. A better understanding of the costs associated with reconfiguring different parking facility types is needed to determine which facilities to target, and which facilities require costs prohibitive to reconfiguration. This cost data will be collected and tested on a sample of existing buildings.

Stakeholder Questions

The three conceptual business models need to be vetted with building owners and other stakeholders to determine how to best refine them to the point that they're practical in the market. This vetting will be useful for uncovering financial, legal, and logistical challenges.

The following is a list of questions targeted at building owners:

1. Which of the three business models presented do you prefer as a building owner? Why, why not.
2. Are there ways in which your preferred model should be changed to make it more practical in the real world?
3. Is there a minimum amount of total profit that you would require to participate in a program like this? For example, if the program generated \$1,000 in annual NOI, and met your other investment return requirements, would you participate?
4. What returns do you target when making other building investments? For example, investments in energy savings measures.
5. Would you be more likely to participate in a program that required no upfront investment and was forecasted (but not guaranteed) to generate a profit that met your return threshold, or one that required an upfront investment but offered a guaranteed profit that met your return threshold?
6. How important is it to you that the users are vetted? Are there particular parking facility types that you would be comfortable leasing to non-vetted transit riders?
7. What non-financial reasons would affect your decision to participate in this program?

Appendix A

Multi-family Park and Ride Pricing Program Considerations

The following list of business model considerations is organized by stakeholder group. The list represents all of the criteria considered by the project team as part of the business model development process. The seven primary objectives presented in the body of this memo are those that were deemed most important to meeting King County's program objectives.

Building Owner Considerations:

- Does the business model generate enough revenue to cover cost of implementation and provide an adequate return to the building owner?
- Is there a minimum number of spaces, \$/space, and/or lease term required to generate an adequate profit to the building owner?
- Are there incentives (beyond parking revenue and subsidy) to attract building owners to the program?
- Does allowing non-tenants into the parking area impact the marketability of the residential units due to real or perceived security concerns, and/or the inconvenience of fully occupied parking?
- Why would a building owner limit parking spaces to transit riders in a priced parking market?

Transit Agency Considerations:

- Does the Agency have control over the price charged for parking?
- Does this business model require a subsidy?
- Is the cost of implementation less than the cost of constructing new P&R spaces?
- Does the business model generate transit ridership?
- Is the program flexible enough to help mitigate temporary P&R shortages (For example, at an interim light rail terminus station on a phased light rail extension, or occasional shortage due to large events, construction impacts, etc...)
- Is the program reliable enough to replace small or high vacancy P&R lots in order to free up sites for TOD?
- Does adding P&R spaces encourage existing commuters to drive for part of their commute?

Park & Ride User Considerations:

- Are transit riders guaranteed a priority parking space?
- Does the model offer P&R spaces at a competitive price?
- Is the parking configuration, garage access, etc...convenient?
- Is the program easy to use? For example, is it easy to locate and reserve a P&R space?
- Is the location of the P&R spaces convenient to the transit service?
- Are the P&R spaces available when needed (peak hours, days, etc...?)
- Is the parking facility safe, secure, etc...?

Municipality Considerations:

- Is this business model allowed under city code?
- Does the program bring more P&R users to the city?
- Does adding P&R spaces create traffic, parking spillover, and other related neighborhood impacts?
- Does the business model help mitigate existing P&R spillover.
- Does the program help the city meet any of its other objectives? For example, if the program reduces VMT by increasing transit ridership it could help the City meet its Carbon Neutrality goals (20% reduction in VMT by 2030).

Social, Environmental, and Other Considerations:

- Does the business model promote social equity?
- Does the business model reduce Vehicle Miles Traveled?
- Does the business model catalyze priced parking in markets that are not currently priced?
- Does the business model promote shared parking?
- Does the business model require dedicated P&R spaces, or shared spaces?
- Does the business model further solidify the bundled relationship between parking and transit by subsidizing more P&R spaces? Or does it unbundle the relationship by promoting priced P&R?
- Does the business model work in urban areas?
- Does the business model work in suburban areas?

Appendix B

Draft Priced Multi-family Park and Ride Project Business Model and Pro Forma

Draft Pro forma:

This pro forma represents a scenario where an open (uncontrolled access) parking facility is converted to a gate controlled facility.

Parking Facility

Total Parking Spaces	142 Spaces
Parking Facility Entrances	2 Entrances
Dedicated Park&Ride Spaces (24hr Availability)	50 Spaces

Assumptions:

35% of total parking spaces

Income:

Parking Revenue per space/day	\$3.00 per Day
Days/Month (Workdays only)	21 Days/Month
Vacancy	10%
<i>Total Income:</i>	<u>\$34,020</u>

Annual Expenses:

Parking Enforcement	\$0
Additional Monitoring (10hrs/Week)**	\$10,400
Parking Operator Fee*	\$8,505
Access Equipment Maintenance	\$1,276
<i>Total Expenses</i>	<u>\$20,181</u>

Paid through towing fees
\$20 per hour
25% of parking revenue
3% of hard costs

Initial Investment:

Signs(2per entrance + 1per five shared spaces)***	\$800
Parking Island	\$4,000
Access Gate	\$10,000
Card Reader	\$16,000
Wiring & Installation	\$10,500
Fees&permits	\$2,025
<i>Total One time Investment</i>	<u>\$43,325</u>

\$200 per sign (includes installation)
\$2000 per entrance
\$2500 per entrance lane & per exit lane
\$4000 per entrance lane & per exit lane
35% of hard costs
5% of hard costs

Financing Assumptions:

Loan to Value	65%
Interest Rate	5.0%
Amortization Period	20 years
Loan Amount	\$28,161
Down Payment (Equity Requirement)	\$15,164
Annual Debt Service	\$2,260

Returns:

Annual Net Operating Income	\$13,839
Annual Cash Flow	\$11,580
Overall Rate of Return (Return on Cost)	32%
Return on Equity	76%

Includes fee collection, operational and revenue reporting, facility inspections, customer service, vehicle assistance, basic marketing, and other expenses related to program operations. **Includes additional garage/lot security and/or monitoring for parking violators. *Includes one terms&conditions sign and one park&lock sign per entrance, plus one P&R sign per five shared spaces if applicable.*