

City of
Bellevue



Transportation Commission Study Session

DATE: June 9, 2022

TO: Chair Marciante and Members of the Transportation Commission

FROM: Chris Iverson, PE, Senior Transportation Engineer, 425-452-6461
civerson@bellevuewa.gov

SUBJECT: Curb Management Plan – Introduction to Curb Pricing and Programs

DIRECTION REQUESTED

Action

Discussion/Direction

Information

Discussion: One component within the scope of the Curb Management Plan is the development of potential approaches to establishing refined curb management programs and associated curb pricing scenarios. This memo describes curb supply and demand concepts, curb pricing for best practices, and draft pricing principles that will be used to aid in the development of recommendations within the final Curb Management Plan. At future Transportation Commission meetings, curb pricing principles will be recommended by the Commission to be added into the plan.

INFORMATION

Since March 2022, City staff and the Nelson\Nygaard consulting team have researched best practices for curb management program approaches, curb supply and demand considerations, and various tools for optimizing curbside activity in alignment with both present day and long-range planning goals. The project team has also developed draft technical reports on curb pricing, including revenues and costs associated with enforcement, curb use permitting, and potential parking pricing approaches.

The Transportation Commission has been tasked with developing recommendations for creating curb management programs, including the advent of curb pricing strategies to help with demand management.

“Curbonomics”: Considering Supply and Demand of the Curb

In most American cities, the curb acts as a hosting ground for a myriad of mobility and placemaking functions. These curb areas directly contribute to economic activity, whether they are used for commercial vehicle loading, on-street dining, customer parking, or other uses. Optimized use and deliberate management of curb areas can augment economic activity; therefore, the curb should be perceived as space with inherent economic value. As Bellevue contemplates the development of more robust curb management practices, it will be important to consider the economics of the curb – or “Curbonomics” – for long range planning and budgeting purposes. For this project, Curbonomics focuses on the concept of supply and demand for the curb.

Curb supply reflects the limited asset of curb space length on any given street. Due to simple geometrics and realities of a built roadway, this curb supply remains relatively consistent and fixed over time. Within the Urban Core neighborhoods of Bellevue, curb supply is constrained and can practically only grow through development activity or capital improvement, which takes years to realize.

While the supply for curb space is finite, the demand for valuable curb space can vary widely depending on type of use, time of the day, and the seasonal variations within roadways. Effective curb demand management is a vital tool for achieving long-range goals associated with mobility, land use planning, and urban growth – especially in dense commercial areas. As growth accelerates, curb demands can overrun the finite curb supply if proper management structures and tools are not employed. This mismatch between curb supply and demand results in common urban mobility challenges, such as double parking, unsafe loading maneuvers, block circling and subsequent congestion issues, increased urban pollution, and lowered quality of life. As an example, research has shown that 30% of cars on average traveling in general downtown city streets during the business day are circling for parking.ⁱ

Determining an optimized “Curbonomics” condition – where curb demands are properly managed to match curb supply – is a desired outcome for the Curb Management Plan. In this utopian scenario, curb areas are both simultaneously well-used and easily available. Research in on-street parking management has shown that an optimized situation results in 85% occupancy at the curb – this means that at least one or two parking spaces per block should be available at all times. If a curb has occupancy greater than 85%, research has shown that block circling times increase rapidlyⁱⁱ.

One primary task within the Curb Management Plan is to develop recommendations to better align curb supply with curb demand over a long-term period. While curb supply will be handled

through tools like the Curb Typology, curb demands will need to be addressed through proper consideration of demand management tools.

Curb Demand Management Approaches

National best practices for curb management point to three primary strategies for handling curb demands: time limits, usage type restrictions, and pricing. While Bellevue uses all three tools today in some capacity, existing approaches tend to be ad hoc and lack broad coordination.

Curb pricing has been shown to be the most effective for managing curb demands. Prices are a direct and efficient way to manage demand for a scarce resource. The use of prices is ubiquitous – they are used in almost every aspect of our life to manage demand for finite goods. Since pricing is so common, this approach is straightforward, easy to communicate, and easy to understand.

Placing monetary value on mobility-focused curb uses – such as on-street parking, passenger pick-up, and shuttles – can directly reflect the economic value that curb spaces provide. Curb pricing approaches also streamline enforcement practices, as it becomes much easier and more efficient to assess violations (compared to non-priced time limits, which are resource-intensive and inefficient as enforcement personnel are required to double check violations). Revenue generated from curb pricing can also help the curb management program grow with the expansion of the Urban Core and, depending on the pricing model, can potentially be reinvested in the community to support other enhancements at the curb.

As Bellevue considers broader curb pricing strategies, it is important to keep in mind that these strategies apply to curb access uses, such as parking, loading, and curb placemaking solutions. All movement-based curb uses – such as travel lanes or bike lanes adjacent to the curb – are assumed to not have a pricing component.

Curb Pricing and Program Sustainability

As discussed during the March 10th, 2022 Transportation Commission meeting, existing curb management practices in Bellevue take ad hoc approaches. Enforcement and staffing focused on curb-related issues are lightly supported through the city's general fund, and expenditures currently outweigh revenues.

A future enhanced curb management program in Bellevue will be needed as curb demands increase over time. This program may include new and upgraded traffic management tools – such as augmented parking enforcement, upgraded signage, parking pay stations, streamlined permit structures, and added staff – to properly manage curb demands.

To properly fund this program, the project team recommends considering the following curb pricing strategies for the Urban Core neighborhoods:

- Launching a paid on-street parking program

- Exploring strategies to charge for specific load & unload activities at the curb
- Revisiting existing curb use lease fee permit structures
- Formalizing micromobility permit structures
- Creating permanent parklet and “streatory” (on-street dining) permit programs

Draft Curb Pricing Principles

The project team will develop curb pricing and program recommendations for the Curb Management Plan based on a set of Commission-approved curb pricing principles. These principles are intended to provide grounding for recommendations that will exist within the plan.

- 1) Parking pricing should be established so the curb is both well-used and readily available.
- 2) Curbside parking revenues should support efficient enforcement structures and contribute toward streetside amenities.
- 3) Curb pricing should be easily communicated to and understood by the public.
- 4) Curb permitting structures should be simple and transparent.
- 5) Any pricing structures should include strategies to ensure equitable outcomes.

The project team will seek feedback from the Transportation Commission to add to, remove, or refine these draft pricing principles.

NEXT STEPS

Staff will gather Commission comments to refine the draft curb pricing principles for discussion & concurrence. Additionally, the project team will continue researching curb pricing best practices, examine existing costs tied to on-street parking enforcement, study existing curb usage data in Bellevue, and develop high-level costs and revenue scenarios for an augmented curb management program and pricing approach. Updated pricing principles and background material will be presented at the next Study Session planned for July 14.

Once pricing principles are established, the project team will begin developing specific recommendations for curb pricing and program development, which will be embedded within the final Curb Management Plan. The Transportation Commission will have opportunities to review and comment on these recommendations at future meetings in late 2022 and early 2023.

Please feel free to contact myself prior to the meeting if you have questions about the agenda materials.

ⁱ <https://www.sciencedirect.com/science/article/pii/S0965856421001105#b0250>

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