

City of
Bellevue



Transportation Commission Study Session

DATE: February 6, 2020
TO: Chair Wu and Members of the Transportation Commission
FROM: Andreas Piller, Associate Transportation Planner,
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SUBJECT: Bike Share Pilot and 2020 Permit

DIRECTION REQUESTED

Action
 Discussion
 Information

PURPOSE

At its study session on February 13, 2020, the Transportation Commission will receive a briefing from staff summarizing the results of the 2018–19 bike share pilot and an update on the 2020 permit. No action is required by the Commission.

The revised permit conditions for 2020 are applied under authority granted to the Transportation Director and remain consistent with the intent, goals, and strategies articulated in the Pilot Permit Framework, which was endorsed by the Transportation Commission in March 2018. Recommendations provided by the Commission will be considered by staff and incorporated to the greatest extent practicable within the established framework.

BACKGROUND

Planning Process

February 2009	August 2015	May 2015	September 2017	November 2017	January 2018	March 2018
Ped-Bike Plan Adopted	Comprehensive Plan Adopted	PBII Scope of Work Approved	Community Engagement	Study Session	Study Session	Study Session – Pilot Framework Endorsement
—	—	—	—	—	—	—
City Council	City Council	Transportation Commission	BDA & Online Questionnaire	Transportation Commission	Transportation Commission	Transportation Commission

Bellevue’s Comprehensive Plan, adopted in August 2015, aims to “maintain and enhance a comprehensive multimodal transportation system to serve all members of the community.” The plan notes that “mobility in Bellevue means providing people with an assortment of mobility options that help people get where they need to go,” and that this “contributes to a quality of life that Bellevue residents expect, and that attracts employers and businesses.” Policies direct the Transportation Department to “evaluate and facilitate car-sharing and bike sharing programs” (TR-16) and to “support the establishment and operation of a bicycle sharing program in Bellevue” (TR-115).

Guided by the Council’s Pedestrian and Bicycle Implementation Initiative (PBII) [Program Principles](#), Task 6 of the PBII Scope of Work directs staff to establish a vision, articulate goals and objectives and define measures of effectiveness for bike share services operating in Bellevue. In summer 2017, privately operated dockless bike share services launched in Seattle and cities across North America. Recognizing that dockless bike share presents a unique set of political, administrative, and technical challenges, staff engaged with the Transportation Commission, Bellevue Downtown Association (BDA), Chamber of Commerce, and broader community to determine how to permit such services in Bellevue. In an online questionnaire, 55 percent of 691 respondents indicated they would use bike share in Bellevue if it were available, and the BDA “endorsed a position supporting the permitted use of free-floating bike share within the City of Bellevue,” along with recommendations for how to do so. Through a series of study sessions, the Transportation Commission shaped the goals and strategies contained in the Pilot Permit Framework (see Attachment H), which they endorsed by a 4-3 vote during their March 2018 study session.

The Bike Share Pilot Permit Special Conditions (see Attachment I) were developed under authority granted to the Transportation Director in the Right-of-Way Use Code (see BCC 14.30.090). Specific conditions relate to each of the strategies articulated in the Framework, and in response to Commission feedback, flexibility was exercised to attract companies to apply for a permit and capably comply with the intent of the proposed strategies, and details were revised as needed in response to the data collected.

2018–19 Bike Share Pilot

June 2018	July 2018	December 2018	January 2019	March 2019	July 2019
Call for Permit Applications	Bike Share Pilot Launch	Staff Report – Pilot Update	End of Primary Evaluation Period	Study Session – Demo Bikeway Assessment	End of 2018–19 Pilot
—	—	—	—	—	—
Staff	Lime	Transportation Commission	Staff	Transportation Commission	Staff

The Transportation Department notified private operators in June 2018 that it was accepting applications to operate private dockless e-bike share services in Bellevue. Interested operators were required to submit notice of intent to apply by July 9 to be eligible for a permit during the 2018–19 pilot. Lime was the only operator to apply. Two other operators providing dockless bike share services in Seattle at that time did not apply; both only offered manual pedal bikes and left the Puget Sound region later that summer. Another operator was preparing to apply for a permit in Seattle under their pending 2018-19 permit requirements—the first update following Seattle’s 2017–18 pilot—but that was delayed from June to November, and the operator chose not to apply for a permit in Bellevue at that time.

On July 31, 2018, Lime’s permit was approved, launching the City’s one-year bike share pilot on the same day as the Downtown Demonstration Bikeway opening celebration event. E-bikes were available for use citywide for a \$1 unlock fee plus \$0.15 per minute. Fifteen designated preferred parking areas, called bike hubs, were available in Downtown on the day the service launched, and the network was expanded to fifty bike hubs across the city by November, including locations in BelRed, Crossroads, Factoria. The MyBellevue app had functionality added to allow the public to easily report issues with bike share bicycles, such as improper parking or maintenance needs. Features in *Neighborhood News* and the Choose Your Way Bellevue blog informed the community about the pilot, how to use the service, and how to report issues.

The Transportation Commission received a [staff report](#) at their meeting on December 13, 2018, which described preliminary performance and customer service data, community feedback, and progress installing bike hubs. Leveraging state Connecting Washington funding allocated to cities in east King County for bike share planning and implementation, the City contracted the Washington State Transportation Center (TRAC) to analyze the mobility data collected from Lime’s e-bikes. Mobility data is derived from the GPS units affixed to each shared bicycle in the deployed fleet, providing time and location information when trips start, end, and when the device pings the operator’s network along the way (i.e., waypoints). To protect user privacy, industry best practice is to treat geospatial data as personally identifiable information (PII). As such, the City did not receive raw mobility data directly from Lime; rather, Lime shared anonymous data with TRAC, who aggregated the results and shared them with the City in the form of bike location and trip counts by day, time, and geographic area.

The Pilot Permit Framework defined the primary evaluation period as “the first six months following system launch or through December 31, 2018, whichever is longer.” As such, the primary evaluation period concluded on January 31, 2019, reflecting six full months of data. This ridership data, focused on trips taken in Downtown, was included in the Downtown Demonstration Bikeway Assessment Report (see Attachment J), which was presented to the Commission at a study session on March 28, 2019. The pilot concluded on July 31, 2019.

Permit Transition to Present

July 2019	September 2019	October 2019	October 2019	November 2019	January 2020	February 2020
Notice of Permit Extension	Staff Report – Preliminary Data	Community Engagement	Staff Briefings	Lime Ended Service	2020 Permit Published	Study Session – Pilot Evaluation and 2020 Permit
—	—	—	—	—	—	—
City Council, Transportation Commission	Transportation Commission	Online Questionnaire, Interactive Map	Transportation Commissioners	Lime	Transportation Department	Transportation Commission

Staff began working on revisions to the bike share permit conditions during the second quarter of 2019. Some revisions were dependent on mobility data collected during the pilot, and all relevant data would not be available to inform the revisions prior to the conclusion of the pilot. In an effort to avoid interruption to bike share service during the transition between permits, the Transportation Department decided to extend Lime’s permit through fall 2019. Staff notified the Transportation Commission and City Council in July 2019 prior to this extension, consistent with condition PI-5 of the pilot permit conditions, which states: “Any extension or alteration of the pilot period will require prior notification of the Transportation Commission and City Council by the Transportation Director or the Director’s designee.”

Staff continued to work with TRAC over the subsequent months to complete the pilot evaluation. On September 26, 2019, the Transportation Commission received a [management brief](#) that provided a summary of some key results related to fleet availability and distribution, trip origins and destinations, user trip frequency, and parking at bike hubs and in city parks. The results presented in that management brief are based on data collected from July 31, 2018 through May 22, 2019, as data through July 31 was not yet available.

The Transportation Department launched two efforts simultaneously to engage the community about bike share in November 2019. The first was an online questionnaire that sought feedback from the community about their use, perception of, and concerns about bike share in Bellevue (see Attachment C-1). A digital flyer was created to notify the public about this opportunity, posted to the City’s social media accounts, and distributed to various organizations (e.g. Bellevue Downtown Association, Chamber of Commerce, Eastside Transportation Association, Cascade Bicycle Club), and articles were published in the October issue of *It’s Your City* and the November issue of *Neighborhood News*. More than 300 people participated, split about 60/40

between self-identified non-users and users. Questionnaire results are provided in two formats: summarized by question and all responses (see Attachments C-2 and C-3).

Secondly, an [interactive mapping tool](#), created by contractor Mapseed, was launched in November to help the City determine where to implement additional bike hubs to support an accessible and orderly citywide bike share system. The multi-lingual platform allows people to provide location suggestions via a map-based online interface and view, vote, and comment on suggestions submitted by others. This participatory planning process aims to empower the public to help make decisions about how bike share can better serve their community, both extending the benefits and addressing concerns associated with dockless bike share. It allows the City to collect suggestions from the public on an ongoing basis, which will be periodically reviewed and evaluated by staff. Newly approved locations will be added to the mobile applications of all permitted shared micromobility operators, and corresponding physical improvements (e.g. paint markings) will be installed as resources permit. The interactive map will remain active through October 2020. Additional targeted engagement with neighborhood groups is anticipated over the coming months to increase equitable access to bike share and respond to areas with higher bike share usage.

On November 26, 2019, Lime notified the City that it had chosen to end service in Bellevue under the original permit and did not intend to seek a permit to operate bike share in Bellevue in 2020, stating: “Lime has decided not to renew our bikeshare permit in the City of Bellevue. We’re proud to have served the community and look forward to the opportunity to partner again on new mobility options in the future.” In the subsequent weeks, Lime suspended all operations throughout the Puget Sound region, terminated service in more than a dozen cities globally, and signaled intentions to refocus operations on unit economics and profitability, including an emphasis on their e-scooter product. As of this writing, there are no active operators in Bellevue; the only active operator in the Puget Sound region is JUMP, who provides e-bike share service in Seattle.

DRAFT BIKE SHARE PILOT EVALUATION REPORT

The Draft Bellevue Bike Share Pilot Evaluation Report is provided here as Attachment A. This report summarizes all mobility data collected from July 31, 2018 through May 22, 2019 and all other evaluation data associated for the full one-year bike share pilot, addressing matters of system performance and operator compliance with permit conditions.

The following was the purpose of the pilot, as articulated in the Pilot Permit Framework:

The City aims to implement a pilot that is consistent with the Bellevue brand of high quality and innovation, providing an asset the community will use and value.

Fundamentally, the pilot aims to facilitate the convenient provision of bicycles where people want them while maintaining orderly and accessible public space and minimizing impacts to parks and private property. Bike share should provide a reliable mobility option within and between major activity centers and support access to and from the regional transit network.

The Draft Pilot Evaluation Report presents key takeaways and in-depth analysis of mobility data and questionnaire results to understand how bike share performed in its first year in Bellevue, how outcomes aligned with stated intentions, and how this experience helped inform the revised permit conditions for 2020. Additional attachments provide the datasets from which these summaries are derived, including:

- **Attachment B** – TRAC Research Queries and Results, including tables, charts, maps, and key takeaways
- **Attachment C** – Fall 2019 Online Questionnaire Results
- **Attachment D** – Fall 2018 Lime User Survey Results
- **Attachment E** – Summary of Customer Service Records
- **Attachment F** – UW Student Reports on Bike Share Parking and GHG Emissions

The report also addresses the following questions and comments submitted to staff by Transportation Commissioners in October 2019 (see Attachment G):

- *Provide a comprehensive performance evaluation true to what is contained in the permit framework, including operator’s compliance with permit conditions.*
 - The Draft Evaluation Report includes data and analysis associated with bicycle availability, usage, safety, and each topic of permit compliance, including right-of-way use, deployed fleet size and distribution, parking in no parking areas, idle bike relocation, and response to reported issues.
- *Are there defined metrics that determine how the pilot would be considered a success or failure?*
 - No. The Transportation Department did not establish targets to ascribe success or failure to the pilot. The pilot was not framed as a litmus test for whether the City should continue to facilitate bike share services. Rather, it was an opportunity for the City to fulfill Council policy direction to “Support establishment and operation of a bicycle sharing program in Bellevue” (Comprehensive Plan policy TR-115), learn from our own experience, and identify opportunities to improve delivery of this mobility option through iteration.

- *We kindly ask that available cost recovery data also be included in the evaluation report.*
 - Lime paid a one-time pilot management fee of \$40,000 to obtain their right-of-way use permit. The evaluation report includes an estimate of the costs associated with the bike share pilot and compares these to that fee and other sources of funding that supported the pilot, including Connecting Washington funds administered by King County Metro.
- *Can helmet usage data collected also be included in the pilot report?*
 - No data is available about helmet usage by bike share users in Bellevue, as no observational studies were conducted on this topic. Such an undertaking would have been staff time intensive, significantly temporally and geographically limited, and challenging to extrapolate. A study conducted in Seattle in 2019 by University of Washington researchers found that “only one in five people riding bike shares wore helmets,” compared with 91 percent of riders of private bikes at the same observation locations (see the [Journal of Community Health article](#) [paywall to full article] and UW [news release](#)). Bellevue City Code requires that “any person operating or riding on a bicycle or cycle not powered by motor on a public roadway, bicycle path, sidewalk or on any right-of-way or publicly owned facility under the jurisdiction of the city shall wear a protective helmet designed for bicycle safety” (BCC 11.60.090). The pilot permit conditions required operators to inform users about Bellevue’s helmet law, include visible notices on all bikes, obtain user affirmation that they possess a helmet upon registering for the service, and provide some means for users to obtain a helmet from the company. Lime complied with all these requirements. The 2020 permit conditions additionally include an incentive for operators to provide helmets on all vehicles at the point-of-rental.

2020 SHARED MICROMOBILITY PERMIT

While completing the pilot evaluation, the Transportation Department created revised permit conditions that incorporate lessons learned from the pilot and respond to an evolving shared micromobility industry and developing best practices. The result is the [2020 Shared Micromobility Permit Special Conditions](#) (see Attachment K), which will apply to operators of shared micromobility services seeking a permit in Bellevue through December 31, 2020. Permit applications will be accepted at any time in 2020, and the annual Shared Micromobility Lease Fee will be prorated up to the nearest quarter of the year coinciding with service launch.

These conditions represent a refinement of the Pilot Permit Special Conditions, not a wholly new approach, and remain consistent with the intent, goals, and strategies articulated in the

Pilot Permit Framework, which has been updated and formalized as the [Shared Micromobility Framework](#) (see Attachment L) to reflect the transition from pilot to annual permit.

Why “Shared Micromobility”?

The permit’s modified title—revised from “Bike Share” to “Shared Micromobility”—reflects the expanding range of vehicles being deployed by private mobility companies for shared use in other cities, including electric-assisted bicycles, trikes, motorized foot scooters, seated scooters, mopeds, and others. This reframing affords the City some flexibility in the types of vehicles that may be allowed under this permit to the extent allowed by local and state codes.

Over just the past three years, shared micromobility has transformed from station-based bike share to dockless bike share, then to e-bike share, then to e-scooter share. The private sector continues to invest in this industry, introducing new technologies to market every couple of months—new vehicle form factors, refinements to existing vehicles, more features. The goal is to support innovation among mobility service providers while ensuring that checks are in place to safely manage their operation and mitigate impacts to the community. Just as the pilot permit allowed the City to proactively manage how the innovation of 2018—dockless bike share—could operate as a community asset during the 2018–19 pilot, the new permit provides a structure within which current and forthcoming innovations can be regulated consistently, with space to apply context-specific requirements as needed without routinely reinventing the wheel.

SAE International, a standards developing organization for engineering professionals in mobility industries, published standards for the classification of powered micromobility vehicles in November 2019 to define six vehicle types by their common and differentiating characteristics. At the time of issuance, Bellevue’s 2020 permit is valid and applicable to the operation of only one of them: electric-assisted bicycles, as defined in RCW 46.04.169. However, an operator may be allowed to deploy other electric micromobility vehicles—those that are fully or partially powered, light- to mid-weight (approximately 200 pounds or less), low- to medium-speed (up to 30 miles per hour) primarily designed for use by one person, and legal to operate widely in Bellevue—subject to the Transportation Department’s review, written approval, and any additional or modified conditions as deemed appropriate.

This desire to encourage innovation is supported by the Smart Mobility Plan, which recommends using partnerships to deploy emerging technologies in many mobility spaces, including autonomous, connected, electric, and shared vehicles to enhance the safety, sustainability, efficiency, and accessibility of Bellevue’s transportation system. To that end, the 2020 permit conditions aim to lower the barrier to entry for new operators to facilitate a more competitive market while encouraging innovation through a variety of values-based incentives,

such as for committing to using zero-emission vehicles for regular rebalancing activities or providing a plan to deploy charging stations at bike hubs.

Motorized foot scooters, commonly known as e-scooters, are a globally popular segment of the shared micromobility industry that are currently not eligible for operation under the 2020 permit due to significant regulations and restrictions on their use in Bellevue (BCC 11.48.210).

NEXT STEPS

The Transportation Department will continue administering conditions on permits for shared micromobility services consistent with the authority granted to the Transportation Director, and the program manager will continue to monitor compliance and system performance. No actions are required of the Transportation Commission or City Council at this time on matters related to shared micromobility, and there are currently no future check-ins scheduled.

Commissioners will be notified of opportunities to support community engagement efforts in the future. For example, a community engagement event is being contemplated in spring 2020 to provide the public with an opportunity to meet any newly permitted operators, see their products, learn about how to ride safely, and recommend locations for new preferred parking areas to be designated and installed. Details will be provided as they are available.

ATTACHMENTS

- **Attachment A** – [Draft Bellevue Bike Share Pilot Evaluation Report](#)
- **Attachment B** – [TRAC Research Queries and Results](#)
- **Attachment C-1** – [Fall 2019 Online Questionnaire](#)
- **Attachment C-2** – [Fall 2019 Online Questionnaire – Summary](#)
- **Attachment C-3** – [Fall 2019 Online Questionnaire Results – All Responses](#)
- **Attachment D-1** – [Fall 2018 Lime User Survey](#)
- **Attachment D-2** – [Fall 2018 Lime User Survey Results](#)
- **Attachment E** – [Summary of Customer Service Records](#)
- **Attachment F** – [UW Student Reports on Bike Share Parking and GHG Emissions](#)
- **Attachment G** – [Email to Staff from Transportation Commissioners Wu, Leitner, and Bishop](#)
- **Attachment H** – [Bellevue Bike Share Pilot Permit Framework](#)
- **Attachment I** – [2018–19 Bike Share Pilot Permit Special Conditions](#)
- **Attachment J** – [Downtown Demonstration Bikeway Assessment Report](#)
- **Attachment K** – [2020 Shared Micromobility Permit Special Conditions](#)
- **Attachment L** – [Bellevue Shared Micromobility Framework](#)