



City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: February 28, 2018

From: Victor Wei, P. Eng.
Director, Transportation

File: 10-6500-01/2018-Vol
01

Re: **Public Bike Share - Proposed Pilot Project**

Staff Recommendation

1. That staff be directed to issue a Request for Proposals for the development and operation of a public bike share system as a pilot project, as described in the staff report dated February 28, 2018, from the Director, Transportation; and
2. That staff report back on the responses to the above Request for Proposals with further recommendations prior to the award of any contract(s) and implementation of the pilot program.

Victor Wei, P. Eng.
Director, Transportation
(604-276-4131)

Att. 1

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Administration & Compliance	<input checked="" type="checkbox"/>	<i>Wagner Gray for Joe Erceg</i>
Economic Development	<input checked="" type="checkbox"/>	
Engineering	<input checked="" type="checkbox"/>	
Law	<input checked="" type="checkbox"/>	
Parks	<input checked="" type="checkbox"/>	
Business Licences	<input checked="" type="checkbox"/>	
Community Bylaws	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: <i>WV</i>	

Staff Report

Origin

The City has been approached by representatives of several different operators of public bike share systems expressing interest in launching operations in Richmond. This report discusses the opportunity and presents a proposed process to facilitate the introduction of a public bike share system in Richmond.

This report supports Council's 2014-2018 Term Goal #3 A Well-Planned Community:

Adhere to effective planning and growth management practices to maintain and enhance the livability, sustainability and desirability of our City and its neighbourhoods, and to ensure the results match the intentions of our policies and bylaws.

3.3. *Effective transportation and mobility networks.*

Findings of Fact

Public Bike Share Systems

Public bike share (PBS) systems involve companies that provide bicycles in various locations in a city for shared use by individuals on a short-term basis. Via digital technology, users can pick up a bicycle in one location and return it to another location within a defined service area. PBS systems have been around for a number of years in many cities around the world, including London, Paris, Washington DC, and several cities in China. In Canada, PBS systems have been operating in Montreal, Toronto, Hamilton, Ottawa, and Vancouver. The Mobi by ShawGO system operating in the City of Vancouver, which is currently the region's only PBS system, launched in Summer 2016.

There are two main models for PBS systems with the difference essentially being the form of technology for locking and unlocking a bike:

- *Docked Systems*: Require relatively expensive and fixed docking stations that can be difficult to re-site and substantial amounts of space to locate the stations in the public realm (e.g., street right-of-way, sidewalks, parks, parking areas). These systems are digitally accessed by cellular phone or swiping of a credit card at the station and the locking and unlocking technology most typically occurs in the docking station. While this system is visually easy to recognize, the costs for the infrastructure can require government subsidy. The cost to install a docking station is approximately \$3,500 per bike.



Figure 1: Mobi Docking Station in Vancouver

The Mobi system in Vancouver is a station-based model (Figure 1). The City of Vancouver administers a private contract with Vancouver Bike Share Inc., a subsidiary of CycleHop, which is North America's largest "smart bike" bike share operator. The City supported CycleHop with a \$5 million fee for the launch and operation of the PBS system for five years plus in-kind support, including docking station sites. In December 2016, Shaw Communications became the system's presenting sponsor as part of a multi-year partnership that is intended to help ensure the long-term financial sustainability of the service.

- *Dockless Systems:* The bicycles are accessed via a mobile app and equipped with GPS and digital locks so that they can be parked anywhere. Using the mobile app, would-be riders locate a bike near them and then scan a barcode attached to a locking mechanism on the rear tire to release the lock, thereby eliminating the need for a physical bike rack or docking station. At the end of a trip, the bike can be parked where legally permitted to do so or at a designated bike parking area that can be marked both on the app and physically at the parking location. As a result, dockless bike share systems have the potential to be less expensive to implement in a broader range of urban conditions, typically at no cost to cities, and to be more convenient for customers.

Regional Interest in Public Bike Share Systems

Within the past year, several jurisdictions in BC have either implemented or are in the process of seeking implementation of a PBS system including:

- *City of Victoria:* Through a letter of intent with the City of Victoria, China-based U-Bicycle launched a fleet of 150 dockless bicycles in Victoria on September 30, 2017 for a one-year pilot project at no cost to the City. Up to 500 bicycles are planned to be made available by Spring 2018. Bicycles can be parked in public areas wherever it is legal to do so without impeding vehicle traffic or blocking pedestrians on sidewalks. Penalties may be charged for improperly parked bicycles.
- *City of Kelowna:* In January 2018, the City of Kelowna Council approved that the City enter into an agreement with Ontario-based Dropbike for an 18-month PBS pilot project. Staff were directed to bring forward an agreement for the purpose of licensing use of the public right-of-way for a PBS service for Council consideration with the launch of the pilot project anticipated in Spring 2018. Initially, 500 bikes (and up to 1,500 bikes) will be deployed at no cost to the City. Dropbike utilizes dockless bikes that will be parked in "havens" that are virtually defined by GPS to delineate geographical boundaries and visually defined by pavement markings as well as approved by the City to ensure that parked bikes do not impede circulation or accessibility of the public right-of-way (Figure 2).



Figure 2: Dropbike Parking Haven

- *University of British Columbia*: In early February 2018, UBC issued a Request for Proposals (RFP) seeking a provider of a PBS system for an 18-month pilot (to the end of 2019) with roll-out of the bikes anticipated in Summer 2018. Key elements of the RFP include no capital or operating costs for the University, a minimum of 200 bikes and up to 2,000 bikes, and a service area encompassing the campus plus the surrounding neighbourhood areas.

In addition, as a number of municipalities across the region have been approached by dockless PBS operators, TransLink is collaborating with municipal partners to produce sometime in Spring 2018 regional guidance for the introduction of dockless public bike sharing that would include:

- Regulations: restatement or interpretation of existing legal requirements including helmet use, bicycle safety standards, and personal data security;
- Common Standards: agreed practices for operating in the region including data sharing, pricing and concessions, minimum operational standards, and requirements for equitable access; and
- Areas for Exploration: matters for local determination or requiring testing to increase shared knowledge and inform policy including local bylaw and permit review, parking and public realm management, caps on the numbers of bicycles, readiness of cycling infrastructure, and payment systems (including integration with Compass).

Consultation with Stakeholders

As part of the preparation of this report, staff requested feedback from three local bike shops (Cap's/Krusty's Bikes, Village Bikes, and Steveston Bicycle & Mobility) that also rent bikes as well as Tourism Richmond on any potential impacts should a pilot PBS project be implemented in Richmond. No responses were received from the three bike shops by the requested deadline.

Staff met with a representative from Tourism Richmond who indicated that the agency is supportive of a PBS system that is easily accessible by tourists as the service would help link local tourist attractions (e.g., between hotels and Britannia Shipyard) and align with its planned initiatives to promote cycle tourism in Richmond (e.g., develop themed bike routes for tourists). Tourism Richmond offered a number of suggestions to make a PBS system attractive for visitors.

The concept was also discussed with the Richmond Active Transportation Committee, which is an informal advisory committee to Council that provides input and feedback to the City on projects related to cycling, in-line skating, skateboarding, and low-speed scooters. The Committee is supportive of a PBS service in Richmond provided adequate time is taken to ensure that a launch is successful and the system is sustainable over the long-term. Members also supported designating specific parking areas for PBS bikes only, particularly in the City Centre where there is relatively limited public space and more demand for existing bike racks from non-PBS users.

Analysis

Opportunity for Public Bike Share in Richmond

The Mobility & Access section of the City's *Official Community Plan* (OCP) recognizes the potential for a PBS service to increase local cycling trips and mode share with the following policy:

- i) *support the implementation of a public bike-share system as part of a regional program that integrates with transit service.*

The Canada Line provides a strong anchor for generating bicycle trips within the City Centre and Richmond's flat topography further complements cycling as a convenient mode of transportation. To this end, the key objectives of a PBS service in Richmond are:

1. Support alternate modes of transportation by complementing transit and walking trips;
2. Support and generate renewed interest in cycling;
3. Be affordable and easy to use;
4. Incur no financial costs (capital or operating) to the City;
5. Provide safe and well-maintained bicycles complete with helmets that meet all applicable safety standards in the Province of BC;
6. Provide adequate supply, coverage, locations, and redistribution of bicycles to support the program's viability;
7. Minimize disruption to and maintain accessibility of the public right-of-way;
8. Be able to address issues common to other dockless PBS systems experienced in other cities (e.g., bicycles illegally parked, abandoned or vandalized); and
9. Be able to integrate with existing and future regional public bike share and transit systems.

Proposed Public Bike Share Pilot Project

As the public bike share industry has evolved towards dockless systems that have allowed operators to significantly decrease costs and thereby deploy systems at no cost to the host city and as the City has been approached by multiple dockless PBS operators, staff recommend seeking a single provider through a Request for Proposal (RFP) process to operate a PBS service in Richmond for 12 to 18 months at no cost to the City. The intent of the RFP would be to secure a single operator in the interests of maximizing the success of a pilot program by minimizing the dilution of potential market uptake across multiple providers, better managing the competition for space within the public realm, and minimizing potential impacts to staff resources. Notwithstanding, staff may consider multiple operators pending the calibre of the RFP responses.

A pilot program would allow staff to monitor and assess the long-term feasibility of a PBS program in Richmond. The key considerations of the RFP evaluation framework would be based on the extent of meeting the nine program objectives stated above as well as the following that incorporate suggestions from Tourism Richmond as noted above (see Attachment 1 for more details):

- Operations: Potential usage patterns, coverage and the effects on pedestrian and cyclist safety and comfort. Establishment of a local operations and maintenance centre that monitors and

responds to, within an acceptable time period, bikes that are left or moved to unsuitable locations so that this task does not fall to City staff.

- **Public Realm:** Creation of virtual stations as designated bike parking areas, particularly in the City Centre, to help avoid potential obstructions in the public realm by improperly parked bicycles (Figure 3). These virtual spaces also have the advantage of being easily relocated if required. Station locations should prioritize access to transit and designated cycling routes. All locations would be subject to the review and approval of the Director of Transportation.



Figure 3: Potential PBS Parking Station at Intersection Corner Clearance (Saba Road at No. 3 Road)

- **Distribution:** All bikes to be equipped with GPS tracking devices so that they can be located at all times.
- **Safety:** All bikes to meet applicable safety standards and legislative requirements including the provision of a helmet with each bike.
- **Costs:** Pricing models, user accessibility and affordability, cost recovery for the City, and long-term financial sustainability of the service.
- **Data:** Security and privacy of user data, and City access to real-time information on bicycle locations and usage/condition status as well as trip data.
- **Risk Management:** Operator to indemnify the City and have commercial general liability insurance that names the City as an additional insured.

For the proposed pilot project, staff recommend that the service area be limited to predominantly the City Centre and potentially Steveston as typically, PBS programs have started in urban centres where trip density and traffic congestion make the service an attractive alternative travel mode that also complements transit use.

To reduce any impacts on existing public bike parking, the provider could also identify areas for additional bike racks in the city. Although a dockless PBS system does not require a fixed object such as a bike rack to lock the bike as the wheels are self-locking, a bike rack would better identify PBS bicycles and ensure unrented bikes are parked in an orderly manner.

With respect to potential impacts to local bike shops that also rent bikes, staff note that rental bikes are not their core business. PBS systems and bike shops with rental bikes also have different business models somewhat analogous to those of rental car companies and car-share operators: PBS is typically for very short-term and short distance trips as opposed to rentals for several hours or daily, and PBS typically supports commuter or personal business trips rather than leisure or recreational trips.

Financial Impact

None.

Conclusion

The establishment of a public bike share system that allows residents and visitors to access affordable and convenient bicycles for short distance trips would provide a number of community benefits that support the City's mobility, carbon reduction and economic development goals consistent with the OCP. Staff recommend that a Request for Proposals be issued to secure a provider of a public bike share pilot program for 12 to 18 months at no cost to the City. Following the receipt and evaluation of any proposals, staff would report back with a recommendation.



Sonali Hingorani, P.Eng.
Transportation Engineer
(604-276-4049)



Joan Caravan
Transportation Planner
(604-276-4035)

SH:jc

Att. 1: Request for Proposal Evaluation Considerations

RFP Evaluation Considerations for Public Bike Share Pilot Program

The evaluation of any proposals received will be based on but not limited to the following criteria.

Business Considerations

- Quality of business plan. Provide financial projections to demonstrate long-term system sustainability.
- Alignment with City's program objectives.
- Applicable experience in other cities.
- Provision of potential revenue stream for use of City property, resources and cost recovery.
- Acknowledgement that no duty, responsibility or obligation is required by the City.
- Third party advertising is not permitted.

System Requirements

- Demonstrate rationale for minimum and maximum number of bikes for deployment including phasing strategy.
- System to be compliant with all Province of BC applicable safety standards and legislative requirements.
- System to provide one bicycle helmet per bicycle and address bicycle helmet hygiene.
- All system component specifications and photographs are to be provided including features of bicycles, IT infrastructure, bike parking systems, etc.
- Identify location of designated bicycle parking areas for unrented bikes and potential locations to create bike parking areas without disrupting public realm and pedestrian areas. Parking not permitted on sidewalks, on-street parking spaces, driveways, ramps, or boulevards in undesignated areas.
- System deployment limited to the coverage area identified in RFP. Contact information for public bike share service provider to be clearly shown on all bikes.
- Based on the service area, provide a conceptual layout of bike parking locations and estimated number of bicycles at each location.
- Bicycles to be equipped with GPS tracking system. Details to be provided regarding how bikes are tracked during origin, destination, route, and completion of the trip.
- Identify accuracy of GPS system for bikes and geo-fencing grids.
- Responsive and timely solutions to redistribution of bicycles and/or other issues that arise.
- Provide security deposit to the City to cover potential costs for City crews to be deployed for bike redistribution.
- Indemnity provided to the City and insurance requirements met and documented.
- Provide detail operational plan of how public realm will be managed.
- Operator to address how equitable access to bike share is provided with their system (e.g., how is access provided to people without smartphones).
- Ability to accommodate multiple rentals per app so that one individual can rent multiple bikes (e.g., for family members).
- Where possible, bicycle parking areas to be located where free WiFi is available to accommodate visitors from outside of Canada who may not have data on their phone to use the bike share app.

RFP Evaluation Considerations for Public Bike Share Pilot Program

- Clear directional signage and maps be placed near bike parking areas to allow visitors to easily find the nearest designated bike route and city attractions and destinations.

Maintenance and Operation Standards

- Bikes are to be maintained in a safe and fully functional state of operation at all times (frequency of inspection by provider).
- Any bike that is unsafe or damaged or in need of repair is to be removed in a timely manner.
- Provide redistribution of bike fleet and remove bikes parked at improper locations.
- Establishment of a local operations and maintenance centre that monitors and responds to, within an acceptable time period, bikes that are left or moved to unsuitable locations so that this task does not fall to City staff.
- Reduce use of public bike racks. Supplemental bike rack locations for designated bike share parking to be identified by provider.
- Unrented bikes are not to create any obstruction or hazards within the public right-of-way and keep all pedestrian areas clear and accessible.
- Bikes are to be parked such that they are not likely to tip over.
- All infrastructure installed by the provider to be removed at the end of the trial period and the existing surface condition to be reinstated.
- Provision to end the pilot program should commitments not be kept in a condition acceptable to the City.

Data Security and Sharing

- Details to be provided to the City regarding data sharing of bike trip information.
- Privacy of customer information to be addressed. Respect and protect all user personal and financial information.
- Company to be registered in the Province of British Columbia. Demonstrate compliance with the BC Privacy Act and the Personal Information Protection and Electronic Documents.