



City of Vancouver Public Bike Share System

Presented to Vancouver City Council

July 23, 2013

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Purpose

Seek Council approval to:

- A. Enter into a contract with Alta Bicycle Share as the owner, operator and financier of the Vancouver public bike share system;
- B. Negotiate and enter into agreements with third parties who wish to contribute to Vancouver's public bike share;
- C. Provide a one time contribution of \$6 million for equipment purchase and installation, and \$1 million for start up staffing, signage, and wayfinding costs; and
- D. Allocate an average annual sustainment budget of \$0.5 million for staffing, signage, and wayfinding costs.

Agenda

1. Background/Context
2. Vancouver's System
3. Financing and Key Contract Terms
4. Risks
5. Next Steps



Public bike share defined



A PBS is an extension of the existing transit system with a network of short-term, self-service bicycle stations in which:

- Users rent bikes by purchasing casual day use or annual memberships
- Users can ride bikes a short distance for one-way trips within a defined service area
- Station locations can change over time based on ridership patterns or temporary needs

Reasons for public bike share



- Support active and healthy living (Healthy City Initiative)
- Extend the reach of transit and walking trips (Greenest City, Transportation 2040)
- Reduce vehicle trips and GHG (Greenest City, Transportation 2040)
- Alleviate transit capacity issues (Transportation 2040)
- Support increased interest and participation in cycling (Greenest City, Transportation 2040)
- Support economic development and small businesses in Vancouver by making getting around easier (Economic Action Strategy)

Benefits of a public bike share system

A public bike share system combined with existing cycling infrastructure results in increased cycling, health benefits & GHG reductions.

Paris

- 70% increase in cycling over the first two years

Lyon

- Cycling mode share increased from less than 1% to 5% in first 2.5 years
- 44% increase in bicycle riding within first year

Barcelona

- 2005 to 2007: cycling mode share increased from 0.8% to 1.8%



Council direction and support

- **July 22, 2008 – Council resolution**
 - Staff to report back on the implementation of a PBS system.
- **March 24, 2009 – Council resolution**
 - Council directed staff to issue an RFP for a PBS system.
- **June 13, 2012 – Council update**
 - Staff presented an update on the status of the procurement process and next steps.
- **October 16 and 17, 2012 – Council amends By-laws**
 - By-law amendments to facilitate an operator to implement and operate a viable PBS system.
- **November 26, 2012 – Vancouver Park Board approval**
 - PBS stations will be permitted on Park property subject to the General Manager of the Park Board approving station sites.

Background research/inputs into our work

Staff has undertaken significant research, analysis and information-gathering:

- TransLink Public Bike System Feasibility Study, March 2008
- Regular information-sharing calls with network of approximately 20 peer cities through Urban Sustainability Directors Network
- Direct research with peer cities who have implemented or are in the process of implementing bike share systems
- In-depth consultation with short-listed proponents
- Consultation with potential system partners/supporters (e.g. UBC, TransLink, BC Ministry of Transportation and Infrastructure)

Usage of public bike share

- Most rides are made by annual members

	% of trips by annual members	% of trips by casual members
London, England	70%	30%
Washington, DC	87%	13%

- 94% of trips are less than 30 minutes in duration
- Primarily for one-way, station to station travel
- Travel to work, school and leisure activities are most common reasons to use a public bike share bike

Partnerships with bike industry



Washington:

“If you need a bike for a full day, a bike rental shop in the District, Arlington, or Alexandria may be a better option. Capital Bikeshare is designed for quick, short trips.”

NYC:

“If you would like to use a bike for an extended period of time, we encourage you to rent a bike at a local bike shop or rental business. Please visit our list of local bike shops and rental businesses on our [Resources](#) page.”

Bike Rental

If you need a bike for a full day, a bike rental shop in the District, Arlington, or Alexandria may be a better option. Capital Bikeshare is designed for quick, short trips.

Washington D.C. bike rental shops



Bike and Roll DC - Bikestation at Union Station

50 Massachusetts Avenue, NE

Bike and Roll Washington D.C.

1100 Pennsylvania Avenue, NW

The Old Post Office Pavilion

Rear Plaza - on 12th Street between Penn and Constitution Avenues

Big Wheel Bikes

1034 33rd Street, NW

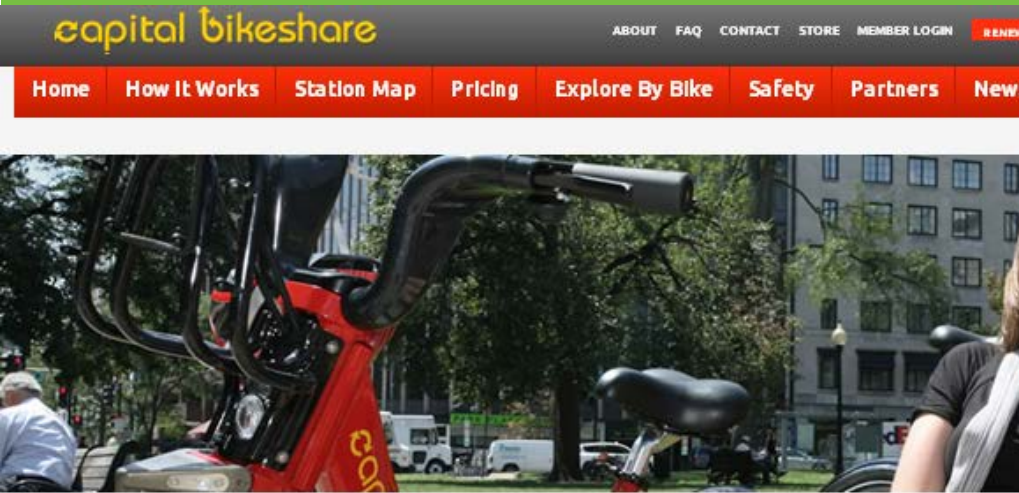
Bikes to Borrow

Delivers bikes around the DC area

Screenshot of Washington D.C.'s Capital Bikeshare webpage



Partnerships with bike industry



Bike Rental and Helmet Shops

Helmets

Capital Bikeshare encourages everyone to wear a helmet when riding a bike. Here is a list of stores in D.C., Arlington, and Alexandria that sell bike helmets:

Washington D.C. stores that sell helmets

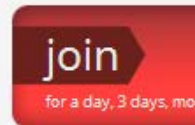
Bicycle Space

1019 7th Street, NW

10% discount on gloves and helmets for CaBi members

Big Wheel Bikes

1034 33rd Street, NW



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Screenshot of Washington D.C.'s Capital Bikeshare webpage



Other recent North American systems

Chicago launched Divvy Bikes on June 28, 2013

- 61 stations and 700 bikes at launch
- In the first 3 weeks:
 - 50,000 trips taken
 - 3,100 annual members
 - 14,000 casual members
 - 281,000 kilometers travelled

Washington, DC launched Capital Bikeshare on September 20, 2010

- Over 200 stations and 1,800 bikes
- Averaging over 185,000 trips a month
- 35,000 annual members since launch
- Average trip length is 15 minutes



New York City launch

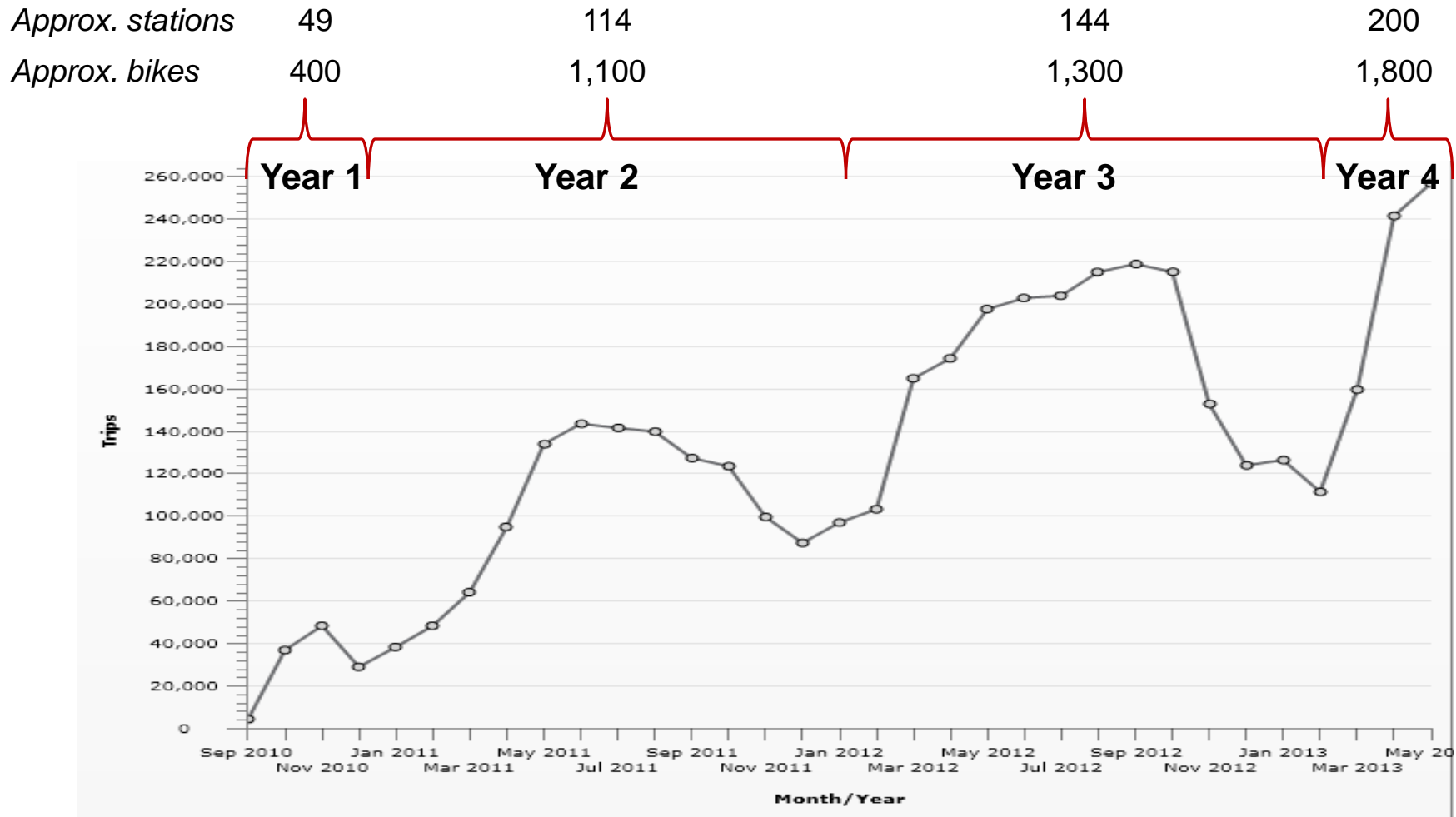
NYC launched Citi Bike on May 27, 2013

- Over 300 stations and 6,000 bikes
- Some hardware and software issues have occurred
- Issues are being resolved
- Recent positive media reports
- Ridership quickly increasing
- In first month of operation
 - 529,000 trips
 - 50,000 annual members
 - 113,000 casual members
 - 2 million kilometers travelled
 - Average trip length is 19 minutes



Photo Credit: flickr: @nycstreets

Ridership growth



Capital Bikeshare (Washington, DC) trip data

Source: www.capitalbikeshare.com/system-data

Procurement process

- RFEOI issued in April 2011, six proponents responded
- Short-listed two and undertook extensive evaluation process, working with:
 - The two proponents
 - Several peer cities
 - Potential local partners (TransLink, UBC, BC Ministry of Transportation and Infrastructure)
- August 2012 - City and Alta entered into a non-legally binding letter of intent
- April 2013 - City negotiated and settled an agreement in-principle with Alta

Evaluation

- **Proponents evaluated on four dimensions:**
 1. Business capacity and expertise
 2. Viability of business/financial model
 3. Viability of the operational model
 4. Ability to implement effectively and on schedule
- **Main differentiators:**
 - Cost structure and business model
 - Degree of reliance on public funding, and
 - Confidence in the underlying partnerships
- **Impact of helmet system an issue for both**

Preferred proponent



Alta Bicycle Share

- Owns, finances, and operates the system (business operations, customer service, etc)
- Would have primary relationship with the City
- Affiliated with Alta Planning + Design



PBSC (Public Bike System Company, "Bixi")

- Provides bikes, station and helmet distribution hardware and software
- Sub-contractor to Alta
- Current market leader in bike share systems

Vancouver's proposed system

- 1,500 bicycles (7-speed, GPS)
- 125 stations
- Integrated helmet rental and return at every station
- Downtown and Metro Core
- Available 24 hours a day, 365 days a year
- Expandable both within and beyond Vancouver borders



Station equipment



- Bikes and docks
 - Stations can accommodate a minimum of 16 bikes
- Payment kiosk
- Helmet vending machine
- Helmet return receptacle
- Map and sponsorship panel



- Stations are prefabricated, modular and do not require anchoring
- Operate on solar power

Photo Credit: [tripadvisor.ca](https://www.tripadvisor.ca/); flickr: [@New York City Streets](https://www.flickr.com/photos/newyorkcitystreets/)

Helmet distribution system

- Staff reviewed three different vending systems and have selected PBSC/Bixi's system, as a sub-contractor to Alta
- All stations will be equipped with a helmet vending machine and return receptacle on launch date
- Users will be able to rent a helmet and bike in the same transaction
- Helmets can be rented and then returned to any station



Helmets

PRICE

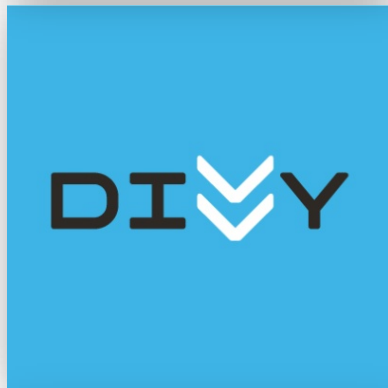
- Low fee, not a barrier to participation
- User charged market value if not returned
- Pricing encourages reuse of helmet throughout the day

USER EXPERIENCE

- Can rent helmet and bicycle in same transaction
- Can accommodate more than one size of helmet
- Helmets cleaned and inspected before redistribution



Branding and program identity



- City retains right to develop system branding, program mark, bike and helmet colour, and program name.

Sponsorship recognition

- Sponsor recognition will appear on:
 - Bike fenders and baskets
 - Docks
 - All helmet vending machines, helmet return receptacles, and helmets.
- Sponsorship panels will include either a sponsored commercial ad or non-commercial sponsor acknowledgement.

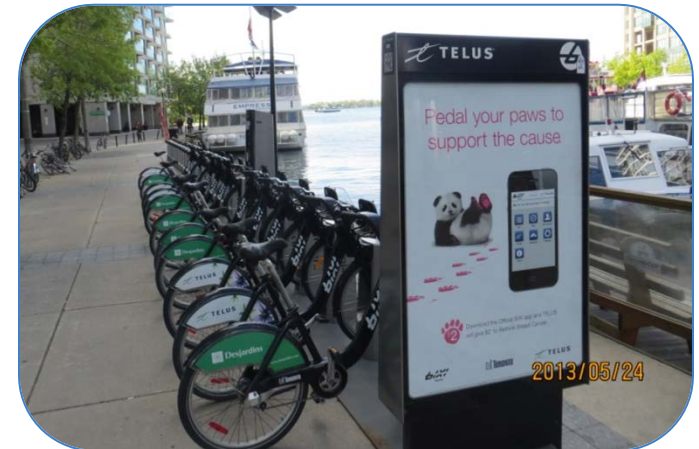


Photo Credit: velo-city2012blog.com

Proposed rate structure



SUBSCRIPTION FEE OPTIONS	
Annual	\$95.00
7-Day	\$20.00
24 Hours	\$5.00

+

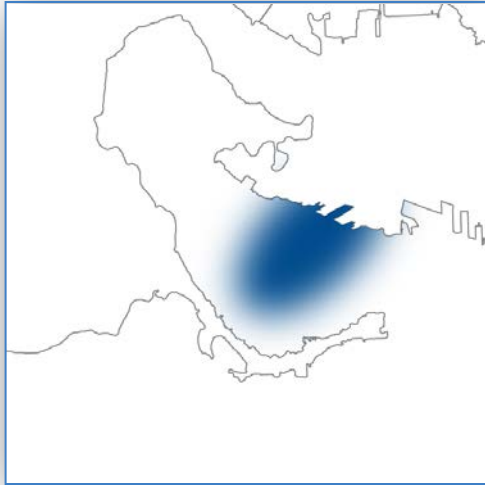
HELMET RENTAL	
1 helmet for 24 hr period	\$3.00

+

ACCESS FEES		
Subscription	Annual	7 day/ 24hr
First 30 mins	\$0.00	\$0.00
Up to 60 mins	\$1.50	\$2.00
61-90 mins	\$5.00	\$6.00
Subsequent 30 min periods	+\$8.00	+\$8.00

- COST OF 8-HOUR RENTAL BY A TOURIST: \$118 includes helmet rental
- By comparison, full day bike shop rental: ~ \$25-\$40

Phased launch



INITIAL FIELD TEST

Early 2014

25 stations, 250 bikes

Partial Downtown



FULL LAUNCH

Spring 2014

125 stations, 1,500 bikes

Downtown and Metro Core

Stations

- Typically located every 2-3 city blocks
- Sited on public streets, sidewalks, plazas and parks, as well as on private lands
 - Maximum 60% of stations will be on the street
 - Remaining stations will be on public and private zoned lands
- Stations may be moved and/or resized to meet system demands and accommodate special events/construction

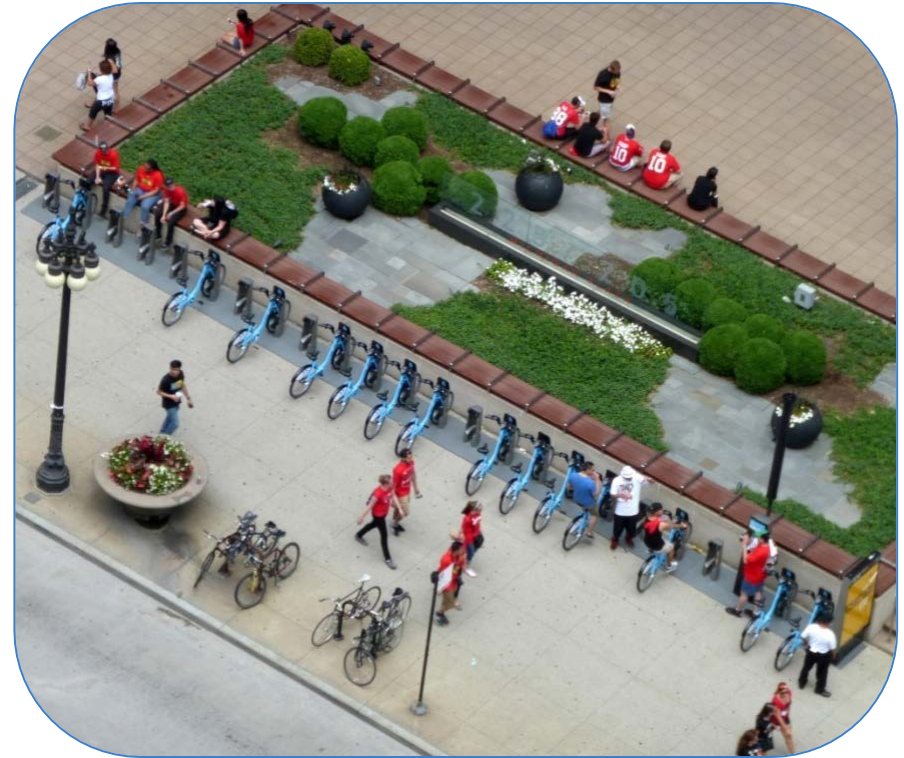


Photo Source: Flickr: @YooperAnn

Station siting principles

The City has been working with Alta to identify potential station sites.

Opportunities

- Connections to transit
- High pedestrian areas
- Commercial/shopping districts
- Parks and community centers
- Educational institutions

Considerations

- Competing interests for space (e.g. food carts)
- Emergency access
- Utilities access
- Pedestrian volumes and flow
- Public amenities and existing infrastructure
- Building access and maintenance
- Private bike rental businesses

Station siting

- Alta will recommend station sites and obtain necessary approvals and permits
 - All stations require approval through a permitting process from the City
- Bike rental businesses
 - City aims to avoid issuing permits for stations within 50 meter area around existing bike rental shops
 - Will be consulted on stations within close proximity to their shops



Photo Credit: flickr: @Eric Gilliland

Stakeholder engagement feedback

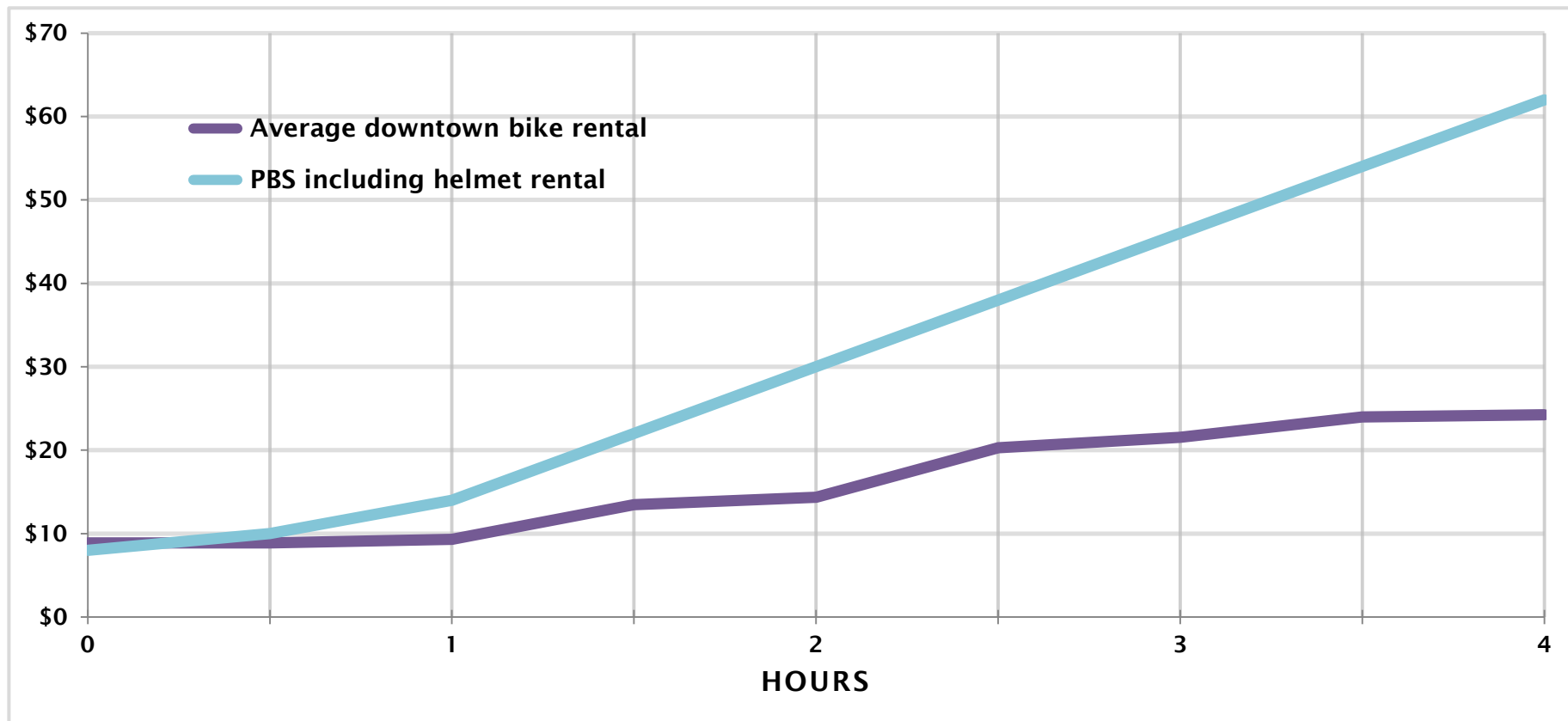
Based on concerns raised during consultation, mitigation measures include:

- **Signage.** Alta signage/website to point people to bike rental shops for longer trips and provide contact information.
- **Pricing.** Pricing structure will discourage PBS for trips over two hours.
- **Siting.** 50 metre buffer between bike rental shops and bike stations; bike rental shops consulted during station site permitting.

Significant interest from others to partner with PBS system:

- **Collaboration opportunities.** Alta to work with local bike rental shops, bike retail shops and car share companies to explore partnerships and collaborations.
- UBC
- Other Municipalities and TransLink

PBS rate structure compared to rental shops



Bike rental shops with a 50 metre buffer zone

 Bike rental shop
with 50m buffer



Cycling education

- The PBS system will provide information to users on:
 - Correct use of the bike
 - Rules of the road
 - Instructions for renting bikes
 - Wayfinding information for getting around the city
 - Bike routes
 - BC's helmet law
- Information will be available at the stations, on the bikes and online.

Map Stand Information

BIKE SAFELY! YOUR SAFETY IS
YOUR RESPONSIBILITY.



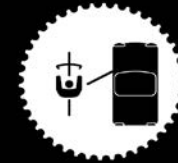
ALWAYS WEAR A HELMET.



FOLLOW THE RULES, including traffic lights.



SHARE THE ROAD - give cars and pedestrians space.



WATCH FOR DOORS

Business model options

LESS CITY INVESTMENT,
CONTROL AND RISK

MORE CITY INVESTMENT,
CONTROL AND RISK

1. THIRD PARTY OWNER-OPERATOR

- Third party private or non-profit entity owns, funds and operates system.
- City provides cash, in-kind, loan guarantees and/or policy/regulatory support.

2. CITY OWNS/THIRD PARTY OPERATES

- Third party entity funds and operates system.
- City owns system, provides cash, in-kind, and policy/regulatory support.

3. CITY OWNS & OPERATES

- City owns, funds and operates system.

Business model

- System owned and operated by Alta Bicycle Share with PBSC as equipment supplier, City as strategic partner.
- Five-year renewable contract.

ALTA BICYCLE SHARE



- Owns, finances, and operates the system
- Designs operating model based on industry best practices
- Owns/manages financial and operational risks
- Adjusts system within set parameters (service area, service levels)
- Contracts with sponsors and financing agents

CITY OF VANCOUVER



- Provides one-time financial contribution toward equipment acquisition
- Provides ongoing in-kind support, including some station sites
- Monitors system performance and progress on achieving transportation and sustainability goals

Key financial framework

Alta Capital Costs

- Equipment purchase and installation
- Funding sources:
 - Alta: corporate sponsorships with bridge financing from bank
 - City one-time contribution; maximum \$6 million

Alta Operating Costs

- Funding sources:
 - Alta: membership and user fees, helmet rental, and sponsorships

City Operating Costs

- In-kind support:
 - Parking meter revenue foregone – up to \$0.8 million/year
- Project start-up and ongoing oversight (staff costs and changes to street signage):
 - Implementation: \$1.0 million (one-time)
 - Post-implementation: \$0.5 million/year

COV contribution

\$ MILLIONS

		JULY 2013 ESTIMATES	
		ONE-TIME	ONGOING AVG ANNUAL
A.	ONE-TIME CITY CONTRIBUTION Maximum COV one-time contribution to Alta for Equipment purchase and installation	\$6.00	
B.	OPERATING CONTRIBUTION Signage and Wayfinding	\$0.25	\$0.05
	City staff	\$0.75	\$0.45
C.	OFFSETTING ADDITIONAL SPONSORSHIP/DONATION TO THE CITY	(\$1.00)	
TOTAL ESTIMATED COV CASH CONTRIBUTIONS		\$6.00	\$0.50
D.	OTHER IMPLICATIONS Potential Impact on COV Parking Meter Revenues		\$0.80
TOTAL ESTIMATED FINANCIAL IMPACT ON COV		\$6.00	\$1.30

Source of funding: Parking Site Reserve

Key contract terms and conditions

- Five-year contract, renewable upon mutual agreement
- Alta will pay for and bear all operational costs and expenses, and will bear all financial, legal and other risks associated with the PBS
- City will make upfront capital contribution; 50:50 profit sharing when Alta experiences cumulative surplus position
- Alta only has to consult the City, but does not have to seek the City's approval, when making operational decisions about the PBS system
- City can terminate the agreement upon financial or performance default prior to the end of the five year term
 - City can assign PBS assets to another operator
 - Sponsorship agreements are transferable to another operator

Key contract terms and conditions

- Key operational parameters
 - Based on best evidence from other systems
 - Approximately 14 key indicators
 - Includes minimum performance levels
 - Allows for seasonal variation in performance
 - Balanced between: COV policy goals and flexibility for operator to manage financial and operational sustainability of system
- Reward/penalty arrangement
 - Based on best practice from other city systems
 - Performance drives adjustment to Alta's 50% profit share
- Terms for expansion within City and other municipalities/UBC will be negotiated with Alta when needed

Key operational parameters

Key Operational Parameters	
1	Stations Full or Empty (3 Hours)
2	Average Station Full (>15 Minutes)
3	Station Full Specific Station
4	Minimum # of Bicycles Deployed
5	% of Station Uptime
6	% of Calls Answered (30 seconds)
7	% of Dropped Calls (Maximum)
8	% of Email Responded (24 Hours)
9	% of Memberships Mailed (24 Hours)
10	% of Stations Cleaned (2 Weeks)
11	% of Bicycles Inspected (Month)
12	% of Bicycles Refurbished (Annual)
13	Helmet Vending Machine Empty (30 minutes)
14	Helmet Return Receptacle Full (2 hours)

Risk themes

1. Business viability
2. Operational viability
3. Vendor and product risk
4. Financial
5. Schedule risk



Key risks and mitigation

BUSINESS VIABILITY

- Relatively young industry
- Helmet impact

OPERATIONAL VIABILITY

- Impact of stations on urban realm
- Bike and helmet distribution systems

VENDOR/PRODUCT

- Software functionality
- Hardware issues
- Alta/PBSC expanding rapidly

SCHEDULE

- Contract finalisation
- Helmet system
- Manufacturing
- Station siting

Mitigation

- *Business model*
- *Experienced operator*
- *Phased launch*
- *Widespread helmet access*
- *Alta bears financial risk*
- *City right to assign to new operator*

- *City to permit station sites*
- *Contractual obligations re: bike/helmet availability, station up-time, station cleanliness, customer service response times*

- *Close working relationship with Alta/PBSC*
- *Phased launch*

- *Significant City resources dedicated to contract development*
- *City monitoring helmet system development*
- *City enabling station siting*

What other cities have told us

	MIAMI	BOSTON	WASHINGTON, DC	DENVER	MELBOURNE	LONDON, UK	TORONTO	CHICAGO	NEW YORK CITY
1. System not yet financially self-sufficient.		✓			✓	✓	✓	n/a	n/a
2. Operators challenged to meet sponsorship targets.		✓	✓		n/a	✓	✓	✓	✓
3. Sufficient time for up-front planning is key to successful launch; station siting time-intensive.	✓	✓	✓		✓			✓	✓
4. Marketing and education is critical.	✓		✓	✓	✓			✓	✓
5. Higher proportion of casual riders than predicted.	✓		✓	✓	✓		✓	n/a	n/a
6. Engage broader community in station siting.	✓			✓	✓		✓	✓	✓
7. Launch as big as possible.	✓		✓	✓	✓	✓	✓	✓	✓

Timeline



Critical next steps

Pending Council approval, Alta to finalize:

- Sponsorship and donation contracts
- Financing agreement
- Implementation and operating plan

Upon completion of the above items, the City will enter into a contract with Alta.



Conclusion



- PBS represents a significant opportunity to support Vancouver's transportation and sustainability goals
- Working toward an agreement that will maximise benefits for citizens and visitors and minimise costs/risks to the City
- Aiming for an initial launch in early 2014 and full launch in Spring 2014