



CITY OF HAMILTON
PLANNING AND ECONOMIC DEVELOPMENT DEPARTMENT
Transportation Planning and Parking Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	October 5, 2020
SUBJECT/REPORT NO:	Free-Floating Carshare Program (PED20168) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Rachel Johnson (905) 546-2424 Ext. 1473
SUBMITTED BY:	Brian Hollingworth Director, Transportation Planning and Parking Planning and Economic Development Department
SIGNATURE:	

RECOMMENDATION

- (a) That the City of Hamilton implement a permit program to allow for free-floating carshare parking;
- (b) That the draft Amending By-law for On-Street Parking By-law 01-218 and Administrative Penalties By-law 17-225, attached as Appendix “A” and Appendix “B” to Report PED20168, which has been prepared in a form satisfactory to the City Solicitor, be approved;
- (c) That a permit fee of \$270.78 plus HST per free-floating carshare permit be included in the City’s User Fees and Charges By-law under the heading “Division Parking & School Crossing - Hamilton Municipal Parking System” effective January 1, 2021.

EXECUTIVE SUMMARY

Free-floating, or one-way carsharing, is the next step in enhancing mobility options in Hamilton. Free-floating carsharing is a model where a carshare vehicle can be parked in designated on-street locations, instead of being picked up and dropped off at a specific spot in an off-street lot or garage, as is typical in a two-way carsharing operation. Free-floating carsharing provides users increased flexibility, as they are not required to return the vehicle to the same location where they picked it up from and their

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OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

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trip ends once they have parked the vehicle in a designated location and ended their ride. Free-floating carshare can lead to shorter trip times, thereby, increasing the number of trips the vehicle can make in a day.

This Report seeks to establish a permitting program for free-floating carshare operators to establish their operations in Hamilton. If approved, a permit fee of \$270.78 plus HST, per carshare vehicle, would be included in the User Fees and Charges By-law effective January 1, 2021. This rate would be subject to change annually. The initial price of \$270.78 was established at three times the 2020 on-street permit parking and time limit parking permit. The revenue generated through the permitting process will be used by Parking Operations to cover any capital or operational costs associated with free-floating carshare operations.

Under the proposed amendments to the On-Street Parking By-law, free-floating carshare vehicles will not be permitted to park on through highways, in revenue generating parking spaces, including metered parking spaces or parking by permit only areas or in City Car Parks at the end of a trip. Free-floating carshare vehicles that hold a valid permit will be exempt from the 24-hour time limit restriction imposed on on-street residential parking spaces. The permit will allow free-floating carshare vehicles to occupy a designated parking space for a maximum of 72 hours. Carshare vehicles may park in an on-street metered parking space or Municipal Car Parks during an active trip, meaning the user has kept the vehicle keys with them and they are still using the vehicle, providing they have paid to be there and they are parked within the posted time limit on the parking meter or do not exceed the hours of operations in the respective Municipal Car Park.

Under the proposed amendments to the Administrative Penalties By-law 17-225, infractions related to the free-floating carshare permit provisions will be implemented to provide an enforcement tool.

Free-floating carshare system operators will be required to share anonymous trip-related data with the City of Hamilton including number of vehicles, number of users, number of trips, origin and destination analysis, and other key information to aid in assessing the success of the program and future expansion opportunities.

Alternatives for Consideration – See Page 7

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: Each free-floating carshare vehicle operator will be required to pay an annual permit fee for each free-floating carshare vehicle in operation in the City. The proposed permit fee for 2021 is \$270.78 plus HST and will be included within the User Fees and Charges By-law commencing in

January 2021, and is subject to change annually. This price was established as three times the annual on-street residential parking permit rate. The levy will be impacted by an increase in revenue, it is estimated 50 permits per year will be given out totalling approximately \$13,539 per year.

Staffing: Hamilton Municipal Parking System (HMPS) staff would be required to issue permits to carshare vehicles. Parking enforcement of free-floating carshare vehicles would be required, the same as other vehicles in Hamilton. Setting up a new type of permit is expected to take a minimal amount of time. It is expected that approximately 50 permits would be issued per year, thus, negligible impact to staffing. No new staff will be required. Staff from Transportation Planning and Parking will work to implement, monitor and review the program.

Legal: An amendment to the On-Street Parking By-law 01-218, as shown in Appendix "A" attached to this Report, will permit free-floating carshare vehicles to park at the end of a trip in all unregulated and time limit parking locations on City streets for a maximum of 72 hours.

An Amendment to the Administrative Penalties By-law 17-225, as shown in Appendix "B" attached to this Report, would establish infractions and penalties related to free-floating carshare vehicle permit provisions.

Pursuant to the City's Public Notice By-law 07-351, as amended, notice is required to be given prior to the enactment of the proposed permit fee of \$270.78 plus HST.

HISTORICAL BACKGROUND

Carshare operations began in Hamilton in 2009 with the introduction of the Community Carshare service, a non-profit co-operative based in Waterloo Ontario, which expanded multiple times, adding new vehicles and vehicle locations within Hamilton. The co-operative was purchased by Communauto in 2017, a carshare operator based in Quebec that also owns Ottawa-based Vrtucar carsharing service. Today, Communauto/Vrtucar operates almost 40 carshare vehicles in Hamilton. Zipcar, an international carsharing service, also operates a fleet of eight vehicles in Hamilton. These two companies currently operate a two-way model of carshare, where vehicles must be taken from and returned to a specific parking spot in a parking lot, which is how carshare has been traditionally operated in North America. Currently, two-way carshare operators are not required to obtain a permit to operate nor do they pay a permit fee to operate within Hamilton. Operators work with city departments to lease vehicle parking space in municipal car parks.

Transportation trends and shifting demands have led to many changes in the field of mobility in recent years. New transportation innovations such as public bikeshare and ride hailing phone apps have catered to an “on-demand” desire for immediate mobility, while a renewed interest in sustainable transportation has led to an increase in cycling and transit usage. Recently, some operators in Canadian and international cities have provided a complementary carshare model that works similar to the bikeshare model, where a user can begin a carshare trip in one location and end their trip in another location without having to return it to a specific parking spot. This has become known as free-floating carsharing and can exist alongside more traditional two-way carsharing, bike-sharing, transit, and taxi/rideshare services. Generally, the majority of free-floating carshare vehicles are parked on city streets by way of a permitting program.

Several studies from the United States and Canada have found numerous benefits of two-way carsharing. Some key findings are listed below:

- Canadian studies and carshare member surveys suggested that between 15-29% of carsharing participants sold one vehicle after joining a carsharing program;
- The same studies and surveys suggest that over 25-61% of members delayed or had forgone a vehicle purchase (Communauto, 2000; Jensen, 2001; Martin et al., 2010)¹; and,
- One carshare vehicle can replace between six to 23 vehicles from the roads; Lane, 2005; Martin et al., 2010 and Zipcar, 2005a, b).²

Most recently, research on the impact of one-way carsharing has emerged. A comprehensive 2016 study found that within Canada there was a 5% reduction in Vehicle Kilometres Travelled (VKT) in urban areas that implemented one-way

¹ Communauto, 2000. Potentiel de L'Auto-Partage Dans Le Cadre d'Une Politique de Gestion de La Demande en Transport. In: Forum de L'AQTR, Gaz à Effet de Serre: Transport et Développement, Kyoto: Une Opportunité d'Affaires? Montréal, Canada. February 7. Available at <https://docplayer.fr/403714-L-auto-partage-et-le-transport-en-commun.html>.

Jensen, N., 2001. The Co-Operative Auto Network Social and Environmental Report, 2000– 2001. Cooperative Auto Network, Vancouver, British Columbia.

Martin, E., Shaheen, S., Lidicker, J., 2010. Impact of carsharing on household vehicle holdings. Transp. Res. Rec. 2143, 150–158.

² Lane, C., 2005. PhillyCar-share: first-year social and mobility impacts of carsharing in Philadelphia, Pennsylvania. Transp. Res. Rec. 1927, 158–166.

Martin, E., Shaheen, S., Lidicker, J., 2010. Impact of carsharing on household vehicle holdings. Transp. Res. Rec. 2143, 150–158.

Zipcar, 2005a. Zipcar Customer Survey Shows Car-Sharing Leads to Car Shedding. Available at <https://www.autorentalnews.com/75124/zipcar-releases-survey-on-car-sharingimpact>. Zipcar. 2005b. Zipcar Customer Survey Shows Car-Sharing Leads to Car Shedding [Internet]. Retrieved from <http://www.zipcar.com/press/releases/press-2>

carsharing. The same study found that between 2-5% of one-way carshare users sold a vehicle and between 8-10% postponed purchasing a vehicle (Martin and Shaheen, 2016).³

Hamiltonians are changing how they move around the City. Carshare is an important option in offering Hamilton residents a variety of mobility options and has proven to be an effective Transportation Demand Management (TDM) tool. The service provides a sustainable and affordable transportation option which reduces vehicle ownership rates, greenhouse gas (GHG) emissions, and reduces household expenses for residents.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

Hamilton's City Council approved Transportation Master Plan (TMP) supports a free-floating carshare through Policy actions 46, 62, 63, and 64. These policy actions are presented here:

- Policy 46 - Identify opportunities for and run pilot projects to assess the applicability and/or feasibility of implementing new technological opportunities, such as mobility as a service;
- Policy 62 - Adopt off-street and on-street parking policies and designs that ensure an adequate parking supply to support growth and economic development, contribute to the achievement of the mode share targets of the TMP, and implement the Complete Liveable Better (CLB) streets and Vision Zero objectives of the TMP;
- Policy 63 - Evolve the Hamilton Municipal Parking System to support the increasing use of shared mobility such as carshare and other shared mobility options and, where applicable, park and ride, is supportive of a free-floating carshare; and,
- Policy 64 - Provide multi-modal access to/from and within employment lands, is also supportive of a free-floating carshare.

An amendment to the On-Street Parking By-law 01-218 will be required to allow free-floating carshare operations on City of Hamilton streets, and an amendment to the Administrative Penalty By-law 17-225 will be required to institute infractions associated with the free-floating carshare vehicle permitting program. An amendment to the City's User Fee and Charges By-law is required to include the proposed annual permit fee.

³ Martin, E., Shaheen, S., 2016. Impacts of car2go on Vehicle Ownership, Modal Shift, Vehicle Miles Traveled, and Greenhouse Gas Emissions: An Analysis of Five North American Cities. Transportation Sustainability Research Center, Berkeley, CA. Available at http://innovativemobility.org/wpcontent/uploads/2016/07/Impactsofcar2go_FiveCities_2016.pdf.

Public Notice must be given pursuant to the City's Public Notice By-law prior to the approval of this fee. This Report requires Council approval to move forward with the implementation of a free-floating carshare system.

RELEVANT CONSULTATION

Consultation has taken place with HMPS staff who would be responsible for the implementation of the free-floating carshare permit process. Consultation has also taken place with carshare operator, Vrtucar, who currently operate a traditional carshare program in Hamilton.

ANALYSIS AND RATIONALE FOR RECOMMENDATION(S)

The benefits of free-floating carshare include increased mobility, increased accessibility, increased affordability, and improved convenience for carshare users. Carshare use leads to lower automobile ownership rates over time, improving congestion while maintaining accessibility and mobility in a sustainable fashion. The reduced automobile ownership rates and VKT help reduce Hamilton's carbon footprint.

A personal vehicle costs between \$8 K - \$10 K; households that reduce ownership of one personal vehicle can significantly lower their household transportation costs.

Two-way carsharing in Hamilton has continued to serve the needs of Hamiltonians for trips that start and end at the same destination for ten years. Today, there are 33 Vrtucar vehicles in Hamilton. The addition of a free-floating carshare operation will allow for greater flexibility of destinations served, and removing the need to return the vehicle to the same destination. Adding this component of carsharing to the City will complement existing carshare services and complement public transit, public bike-share and taxi/ridesharing services. Canadian municipalities have shown that there is latent demand for free-floating carshare services. Programs in Montreal, Vancouver and Halifax, and a pilot in Toronto, have proven to be successful and popular from a user perspective. However, experience in Toronto has shown that the programs also need to be managed to avoid undo impacts to residential areas. For example, Toronto has placed a cap of 500 carshare vehicles per carshare company/organization and the conditions of permit states that vehicles cannot cluster on a particular street.

The cost of the permit in Hamilton for the operation of a free-floating carshare vehicle that is indexed to the existing on-street permit parking price was derived by examining permit prices in other municipalities in Canada. The Halifax Regional Municipality (HRM) charges a free-floating carshare fee that is equal to the on-street permit parking fee (which is \$30 per year). Toronto and Vancouver have permit costs which range from \$75 to \$1,500 depending on area and permit type, which in some cases are significantly higher than Hamilton's proposed fee, as is the average parking rates in

these cities overall. Staff have determined Hamilton's fee to be mid-range when compared to all other Canadian municipalities with free-floating carshare permits.

ALTERNATIVES FOR CONSIDERATION

Council could choose not to permit free-floating carshare vehicles. This would result in a business-as-usual scenario, where transportation options in the City are not improved, and therefore; the benefits, such as reduced vehicle ownership rates and congestion reduction, are not realized.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Economic Prosperity and Growth

Hamilton has a prosperous and diverse local economy where people have opportunities to grow and develop.

Healthy and Safe Communities

Hamilton is a safe and supportive City where people are active, healthy, and have a high quality of life.

Built Environment and Infrastructure

Hamilton is supported by state of the art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

APPENDICES AND SCHEDULES ATTACHED

Appendix "A" – Amending By-law for On-Street Parking By-law 01-218

Appendix "B" – Amending Administrative Penalties By-law 17-225

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