

**Report to  
Rapport au:**

**Transit Commission  
Commission du transport en commun  
15 June 2016 / 15 juin 2016**

**and Council  
et au Conseil  
22 June 2016 / 22 juin 2016**

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**Submitted by  
Soumis par:  
Steve Kanellakos, City Manager / Directeur municipal**

**Contact Person  
Personne ressource:  
John Manconi, General Manager / Directeur general, Transit Services / Service de  
transport en commun  
*613-580-2424 ext./poste 52111, John.Manconi@ottawa.ca***

**Ward: CITY WIDE / À L'ÉCHELLE DE LA VILLE      File Number: ACS2016-CMR-OCM-0017**

**SUBJECT: OC TRANSPO FARE SYSTEM – RESTRUCTURING TO COORDINATE  
WITH THE O-TRAIN CONFEDERATION LINE MULTIMODAL  
OPERATIONS**

**OBJET: SYSTÈME TARIFAIRES D'OC TRANSPO– RESTRUCTURATION AFIN  
D'ASSURER LA COORDINATION AVEC LES OPÉRATIONS  
MULTIMODALES DE LA LIGNE DE LA CONFÉDÉRATION DE L'O-  
TRAIN**

## REPORT RECOMMENDATIONS

That the Transit Commission recommend Council approve:

1. The adoption of a new fare structure, as outlined in this report and illustrated in Document 1 of this report, effective January 1, 2017, and subject to annual budget approval, including the following elements:
  - i. The removal of premium fares for express routes;
  - ii. The removal of the requirement for fare upgrades during the morning peak period on Para Transpo service;
  - iii. The discontinuation of paper tickets and paper monthly passes;
  - iv. The introduction of a monthly Access Pass;
  - v. The replacement of the Student Monthly Pass by a new Youth Monthly Pass; and,
  - vi. Future introduction of multi-day passes.
2. A new fare increase date of January 1<sup>st</sup> of each year, to be consistent with the City's budget year subject to annual budget approval.
3. The extension of the temporary reduction of cash fares for Para Transpo service to be consistent with the Presto e-purse fares for conventional OC Transpo service until December 31, 2016.

## RECOMMANDATIONS DU RAPPORT

Que la Commission du transport en commun recommande au Conseil d'approuver ce qui suit :

1. L'adoption d'un nouveau barème de tarifs, qui entrera en vigueur le 1<sup>er</sup> janvier 2017 et comprendra les changements suivants, indiqués dans le présent rapport et le document 1 ci-joint, sous réserve de l'approbation du budget annuel, qui comprend les éléments suivants :
  - i) l'élimination des frais supplémentaires pour les circuits express;
  - ii) l'élimination des frais supplémentaires exigés pour les services de Para Transpo pendant la période de pointe du matin;

- iii) **l'élimination des titres de transport et des laissez-passer mensuels en papier;**
  - iv) **l'introduction d'un laissez-passer mensuel Accès;**
  - v) **le remplacement du laissez-passer mensuel pour étudiants par un laissez-passer mensuel pour jeunes;**
  - vi) **la mise en place future de laissez-passer pour plusieurs jours;**
2. **Le changement de la date d'augmentation des tarifs au 1<sup>er</sup> janvier de chaque année, pour l'harmoniser avec l'exercice budgétaire de la Ville, sous réserve de l'approbation du budget annuel;**
  3. **Le prolongement, jusqu'au 31 décembre 2016, du rabais temporaire sur les tarifs de Para Transpo payés en argent comptant pour qu'ils correspondent à ceux du service conventionnel d'OC Transpo payés par porte-monnaie électronique PRESTO.**

## **EXECUTIVE SUMMARY**

The delivery of transit service in Ottawa has changed over the years as the overall transit network has expanded. Transit service will soon be adjusted to adapt to an even larger, multimodal network leading up to the opening of the O-Train Confederation Line in 2018. As part of this transition, the Transit Commission approved a Rapid Transit Fare Control Strategy, providing that all rail stations would have fare control equipment requiring machine-readable fares.

Premium fares have historically been charged on most direct-to-downtown routes that start outside or within the Greenbelt, referred to as "express" routes. These fares were charged for no-transfer trips between home and downtown that saved 10 minutes or more. However, with the expansion of the Transitway and other improvements to the transit network over the years, the quality of other long-distance regular-fare routes has improved and the "express" distinction has diminished. With the opening of the Confederation Line in 2018, there will be no difference in service quality between routes serving rail stations. The removal of premium fares from the selection of fare options is required.

Removing premium fares requires other fare changes to ensure that overall fare revenue is consistent and aligned with the City's Long Term Affordability Plan for Transit. Staff are recommending that weighted adjustments be applied to fare groups

that currently have regular and express fare options. This will create a single monthly pass product for adults, a single monthly pass price for students, and a single cash and e-purse fare for adults. A secondary adjustment for single-ride fares is also recommended to align the e-purse and cash fares for adults, seniors, and children.

The 2013 Rapid Transit Fare Control Strategy report approved the introduction of fare vending machines and fare gates at all O-Train stations. This strategy requires that all passes, transfers and other fares be machine-readable, by smartcards or by carrying 2D barcodes. This system requires several current fare types to be modified, including the winding down of paper passes and tickets, finding solutions for customers allowed to travel for free, special event tickets that include transit fares in the ticket price, the post-secondary U-Pass, and connections made by STO customers.

In addition to removing premium fares and finding solutions for fares to be machine-readable, several other fare changes are recommended to modernize the fare system, to increase consistency and to respond to requests from customers. The requirement of a morning top-up fare on Para Transpo has outlived its original purpose and can be removed. It is recommended that the top-up on Para Transpo for Community Pass holders who are ODSP recipients also be removed, and the introduction of a new Access Pass for other Community Pass holders would make this possible. The concept of a monthly pass for youth has been reviewed and is proposed to replace the student monthly pass. A day pass price adjustment has been proposed that will more clearly identify the value of the pass, with a continued strategy for multiple users on weekends and holidays. The concept of multi-day pass has also been examined and would be made available once the Confederation Line opens in 2018. Staff are developing intermodal integrated fares with VIA Rail Canada, which would allow intercity travellers to book and pay for VIA Rail and OC Transpo fares at the same time.

OC Transpo has a network of vendors that sell different fare products to transit customers across the City. The current vendor network will need to transform from the fare products it sells today, and staff will work with them to explore other product offerings, such as pre-loaded Presto cards. Staff also recognizes that social and other agencies across the City purchase transit fares for their clients to ensure that their needs are met. With the gradual removal of paper products from the set of fare products, staff will make available to these agencies other ways to pre-pay single-ride fares that will meet the needs of their clients.

Staff are recommending that the annual fare changes begin on January 1 each year, instead of the current July 1, to match the City's budget year more closely. The sole

exception to this is the U-Pass, which is contractually set to change in September, at the beginning of each school year. In 2017, making the fare change on January 1 will ease the transition to the recommended new fare structure.

During the 2016 budget process, staff advised the Transit Commission that this report would include a review of ridership and the influences on ridership. OC Transpo retained a well-regarded consulting firm to review short- and long-range ridership forecasting models, and to propose recommendations to improve the models. The main focus on the short-range model review was to help determine a large gap between modelled and actual ridership that occurred starting in April 2012, as the model continues to consistently over-predict transit trips. The consultant and staff identified several short- and long-term factors that may be part of the change. Neither the consultant nor staff were able to pinpoint one or a combination of factors that caused the variation in the ridership model. The consultant did recommend, and staff have adopted, several actions in an effort to better understand the variables in order to better predict future ridership.

## **BACKGROUND**

### **Fare policy**

OC Transpo's fare structure has changed significantly over the past decades. Historically, new fare products have been added and removed to the fare structure individually, with most structural changes being associated with the provision of various discounted fares and the introduction of the Presto smartcard.

In 2011, Council adopted a long range financial plan that was backed by a financial model that ensured that investments in transit were, and continued to be, affordable. The financial model was further refined in 2013 and summarized in a report on affordability. A key assumption in the financial models is that transit fares increase at the rate of transit inflation.

During the 2016 budget process, the Transit Commission and Council were advised that a comprehensive report was being brought forward by staff on a new fare table for the City's multimodal bus and rail system. Staff also confirmed that that report would provide an update on OC Transpo ridership and the factors that can influence ridership.

On December 9, 2013, the Transit Commission approved the *Rapid Transit Fare Control Strategy*, which consists of fare-paid zones at major transfer stations, fare gates and fare vending machines at O-Train Confederation Line and Trillium Line stations,

machine readable transfers with barcodes, and compatibility with future fare payment methods.

### **Funding for transit**

The 2016 operating budget for Transit Services is \$490 million. Funding to operate these services comes from three main sources:

- revenues, consisting mostly of fares paid by transit customers;
- provincial gas tax;
- property tax.

The 2016 operating budget includes an expectation of \$188.9 million in fare revenue for conventional transit service.

### **DISCUSSION**

With recent and upcoming changes in the way that transit services are delivered, a need was identified to review all transit fares. In 2017 and 2018, a new fare control system will be in place at O-Train stations on the Trillium Line and Confederation Line, which will require that all passes and transfers be machine-readable. Once the O-Train Confederation Line opens in 2018, in addition to the fare control system requirements that match the Trillium Line, the fare structure needs to be aligned with the service delivery model, with bus routes providing connections to the Confederation Line but with many fewer bus routes operating directly into downtown.

#### **Premium fares**

Historically, a premium fare has been charged on direct-to-downtown routes that pick up the majority of their customers outside or within the Greenbelt, provide a premium service that offers a no-transfer trip between home and downtown, and save 10 minutes or more from the travel time on regular-fare routes serving the same community. These routes have been called “express” routes.

The current fare structure provides customers with an option to purchase adult express fares, priced between 23 and 50 per cent above the cost of adult regular fares. Students aged 13 to 19 have an option to purchase a student express monthly pass, priced 17 per cent above the cost of a student regular pass. Customers who are eligible for senior monthly passes and Community passes, and post-secondary students who participate

in the U-Pass program, are permitted to use all routes, including express routes. The City currently collects \$6 million in premium fare revenue per year.

Express routes currently run direct-to-downtown from Kanata, Stittsville, Barrhaven and Orléans. Other highly-efficient rapid transit routes serve these communities as well, and have never required premium fares. Several direct-to-downtown routes are also provided for locations inside the greenbelt and from the south that do not require premium fares.

Over the past 30 years, with the expansion of the Transitway system and improvements to the transit network, the quality of all long-distance transit service has improved. Express routes have gradually lost their distinction from regular-fare routes, not because of reductions in the quality of service on express routes, but by improvements in the quality of service on regular routes. Express routes are no longer clearly distinct from regular-fare routes, and the travel time differential on express routes has diminished.

Once the O-Train Confederation Line opens in 2018, all current express routes will change to Connexion routes and will connect customers to the O-Train Confederation Line at one of the key transfer stations. There will be no difference in service quality between the former express routes and other routes connecting to the O-Train Confederation Line.

Charging a premium fare on some routes or trips would be inequitable, is not technically feasible, and would result in reduced service quality. Customers who transfer between Connexion routes and the O-Train Confederation Line will do so in a fare-paid area, to make connections easy and fast, allowing customers to change modes without the need to re-prove or re-validate their fare, and allowing customers to board buses quickly through all doors. It will be impractical and infeasible to charge or validate a premium fare on homebound trips in the afternoon without significantly impacting service and increasing costs. If premium fares were retained, they would be checked by requiring all customers to board through the front door of the bus, and this would increase loading times, causing extreme backups and delays in the stations.

Staff are recommending that premium fares be discontinued as of January 1, 2017. To stay within the City's Long Term Affordability Plan for Transit, premium fare revenue collected today will be collected through other fare adjustments, detailed later in this report.

### **Fare recalibration**

With the end of express service and the removal of premium fares, similar fares will apply to all routes and all trips. Weighted adjustments will be applied to fare groups where regular and express fare options exist today. After adjustments, there will be one monthly pass price for adults, one monthly pass price for students, one e-purse fare for adults, and one cash fare for adults. Recalibrated amounts shown in this amount take into account fares approved by Council in the 2016 budget and which take effect on July 1, 2016, but do not include 2017 inflationary increases.

*Monthly passes:*

From July 1, 2016, adult express monthly passes cost \$130.50 and adult regular monthly passes cost \$105.75. Based on the relative proportions of sales of each of these two pass types, the recalibrated monthly pass price for adults would be \$112.25.

Student express monthly passes cost \$99.00 and student regular monthly passes cost \$84.25. Almost all student monthly pass holders purchase regular passes, and so the recalibrated monthly pass price for students would be \$84.75.

Other passes already allow for full use of the transit system and therefore do not require recalibration to phase out premium fares.

*Single-ride fares:*

Similar to monthly passes, the majority of adult single-ride customers pay with a regular fare. Therefore, recalibrated fares calculate much closer to existing regular fare prices.

From July 1, 2016, the regular adult Presto e-purse fare is \$3.00 and the express adult Presto e-purse fare is \$4.39. The regular adult ticket fare is \$3.30 and the express adult ticket fare is \$4.95. The regular adult cash fare is \$3.65 and the express adult cash fare is \$5.15.

In addition to recalibrating the single-ride fares to allow for the removal of premium fares, it is recommended that the e-purse and cash single-ride fares be aligned more closely. This adjustment also supports the discontinuation of paper tickets, as described in more detail later in this report.

The recalibrated e-purse fares would be \$3.30 for adults, \$2.50 for seniors, and \$1.65 for children. The cash fares would be \$3.35 for adults, \$2.55 for seniors, and \$1.70 for children.

Because single-ride fares involve more financial transactions than monthly passes do, they incur higher costs. The single-ride cash fares include the cost of cash handling and the single-ride e-purse fares include the cost of Presto transaction processing. Any future changes in these costs could be accommodated by making adjustments to the particular fares affected.

The small differential between e-purse and cash fares will continue to support customers' choice of the Presto cards for its convenience in loading and managing value and in providing usage reports for transit tax credits.

### **Machine-readable fares**

The *Rapid Transit Fare Control Strategy*, implementing fare vending machines and fare gates at stations on the O-Train Trillium Line and Confederation Line, requires that all passes, transfers, and other fares be machine-readable, either as smartcards or by carrying 2D barcodes. Several fare types will be modified to meet this requirement.

#### *Winding down paper tickets and paper passes:*

As noted in the April 23, 2012, report entitled *OC Transpo Fares – 2012/2013*, it was expected that with the adoption of the Presto fare payment system, paper tickets and passes would be discontinued at the end of 2012. Staff deferred this in an effort to assist customers to make the transition to smartcards. Now, with three years of Presto use, high adoption rates, and the forthcoming implementation of fare gates, the time has come to discontinue paper passes and tickets.

Once fare gates are in place at O-Train stations, it will not be possible for customers to use paper tickets and passes. Customers who purchase monthly passes will need to do so using a Presto card. Customers who currently pay their single-ride fares with tickets will need to either use the e-purse on a Presto card or else pay with cash. Monthly passes held on the Presto smartcard have the same price as the current paper passes, and with the alignment of single-ride fares, the e-purse fare will match the current ticket price. Thus, the discontinuation of paper passes and paper tickets will cause no financial impact for customers who now use them.

Many other Canadian jurisdictions are in the process of, or have already phased out, non-machine-readable fares, including Montreal, Vancouver and several agencies in the Greater Toronto and Hamilton Area who use the Presto smartcard system.

Paper passes and tickets will be phased out, beginning with the pass types that have the lowest use. Student passes would be converted to Presto by October 2016, adult

passes by June 2017, and senior passes and Community Passes by August 2017. Paper tickets would be phased out by November 2017.

*Free fares for children aged five years and under and for seniors on Wednesdays:*

Children aged five years and under are not required to pay a transit fare. Seniors are not required to pay a transit fare on Wednesdays. Staff will put operational processes into place that will allow these customers to continue to ride on all parts of the OC Transpo system once the fare gates are in place at O-Train stations.

*Event tickets:*

Continuing the existing service model for events for which transit fares are included in the ticket price, particularly for events at Lansdowne and the future LeBreton Flats venues, staff will work with event organizers to ensure that future event tickets include barcodes so that customers can pass through fare gates as well as printed event information so that customers can board buses. In cases where event tickets are stored on media such as contactless cards, OC Transpo will work with organizers to ensure that the cards are printed with basic event-identifying information and that the cards are compatible with fare gates.

*U-Pass:*

OC Transpo is working with the universities and colleges on solutions that will make the U-Pass both machine-readable and capable of visual inspection, so that it can be used both at fare gates at O-Train stations and when boarding buses. A pilot project to assist with this is being carried out this summer with students at the University of Ottawa.

*Connections with the Société de transport de l'Outaouais (STO):*

The fare gates at O-Train stations, like the Presto readers on board buses, will read and recognize the STO Multi smartcard. Thus, STO customers who use the Multi card will see no changes in how they will be able to connect to OC Transpo buses or trains. OC Transpo staff are in discussions with STO staff to determine the best way to accommodate those customers who start their trip on the STO, pay with cash or ticket, and transfer at an O-Train station. Customers who connect from OC Transpo to STO services will do so as they do now, either tapping their Presto smartcard or showing an OC Transpo transfer.

*Rural partner routes:*

The opening of the O-Train Confederation Line will present the opportunity for rural partner services from outside Ottawa to reduce their costs by realigning their buses to connect at one of the major transfer stations. The current service and fare integration arrangements will be revised accordingly, in discussion with the rural partner municipalities or companies.

*Other special fares:*

OC Transpo currently offers special fares or free fares on certain days of the year. These arrangements will be adapted to work with the fare gates that are being installed at O-Train stations.

**Other fare system changes**

In addition to the adjustments to remove premium fares and the introduction of machine-readable fares, several other fare system changes are being recommended in this report, to modernize the fare system, to increase consistency, and to respond to requests from customers.

*Para Transpo:*

For customers booking a trip on Para Transpo, a top-up is currently required for customers during the morning peak period who do not have an express pass. Historically, this top-up was designed to reduce demand during the busy morning peak. However, its effect today has lessened. With the removal of express fares for conventional service, it is recommended that the requirement for a morning top-up be removed.

*Community Pass on Para Transpo:*

Current Para Transpo fares require Community Pass holders to top-up at all times, using one ticket or \$2.10 cash. This has the result of making the cost of travel higher on Para Transpo than on conventional service for ODSP recipients. It is recommended that the current top-up requirement be removed and that the Community Pass be valid as full fare on both conventional and Para Transpo services. This is possible with the addition of the new Access Pass, proposed below. With that change, the Community Pass would only be available to ODSP recipients. Customers must show their proof of eligibility for ODSP when applying for the Community Pass concession. The smartcard must be registered to the individual Community Pass customer and is not transferable.

*New Access Pass:*

Currently, the Community Pass is available not only to ODSP recipients but also to Para Transpo registrants. It is recommended that OC Transpo introduce a new monthly Access Pass, at the same price as a Community Pass. This monthly pass would continue the incentive for Para Transpo customers to use conventional service when they can. The pass would be valid as full fare on conventional service and would provide a one-third discount for trips made on Para Transpo. Other monthly passes will continue to be available to Para Transpo customers, including adult, youth, and senior monthly passes, and customers would be able to choose between the Access Pass and the other pass types, depending on how frequently they use conventional service and how frequently they use Para Transpo. Staff will make information available to Para Transpo customers to help them to decide what fare type is best for them. Customers will need to provide proof of their Para Transpo registration when applying for the Access Pass concession. The smartcard must be registered to the individual Access Pass customer and is not transferable.

*New youth monthly pass:*

It is recommended that the student monthly pass be replaced with a youth monthly pass available to all people aged 19 and under. The effect of this change will be to extend the availability of the discounted fare to customers who are 19 or younger and who are not registered as a student. This will remove the need to prove student eligibility, and the discounted fare would only require proof of age. The fare revenue loss resulting from the discount newly available to youth who are not students amounts to approximately \$360,000 per year, and this would be made up by a small reduction in the discount level. The youth pass would have a cost of \$86.50 per month (a 23 percent discount from full fare), replacing the student pass at \$84.75 a month (a 24 percent discount). The youth pass would be transferrable, and customers using it would need to carry proof of age, to be able to show to staff that they are eligible.

*Day pass:*

The day pass, currently priced at \$8.50, is available on weekdays for use by one customer and on weekends and holidays by a family of up to two adults and four children. It is recommended that the price of a day pass be adjusted to be three times the price of a single-ride adult e-purse fare, rounded up to the nearest quarter. This would clarify the value of the day pass – that it is best-used by customers who make four or more trips a day or by families who make a round trip on weekends. Based on the recommended 2016 fares, this would make the new price \$10.00. Day passes can now be purchased on board buses by cash or Presto e-purse and will also be available

at the fare vending machines at O-Train stations by cash, Presto e-purse, credit card, or debit card. The wide availability of day passes is particularly valuable to visitors to Ottawa.

*Multi-day pass:*

The provision of a multi-day pass is very important for Ottawa's tourism industry. It is recommended that new multi-day passes be made available starting in 2018. These passes would be available for between two and seven days, and would be available only at fare vending machines at O-Train stations. Staff will ensure that multi-day passes are priced to encourage ridership and to not lose fare revenue. The recommended prices would be provided for consideration as part of the 2018 budget.

*Intermodal integrated fares:*

As a means of making travel to and from Ottawa more convenient, and in an effort to encourage public transit use in Ottawa, OC Transpo is working with VIA Rail Canada to give VIA's customers the option of including the cost of transit in the train fare. VIA has already partnered with other transportation agencies after developing a reservation tool that incorporates VIA Rail and transportation agency fares when customers make reservations.

This would allow customers to purchase tickets, for example, from Montréal to downtown Ottawa, with the connection from VIA train to the O-Train Confederation Line being made at Tremblay Station. The tickets would carry barcodes to allow customers to pass through the fare gates and the tickets would be priced to collect the regular fare plus any administrative fee set by VIA. Staff are also ready to work with any other intercity transportation carrier to provide the same opportunity.

**Fare distribution**

*Fares sold by vendors:*

OC Transpo's current vendor network will need to transform from the fare products it sells today. As all monthly passes will be on Presto cards and as tickets will no longer be used, these products will not be available for vendors to sell. Staff will work with the vendors to explore other products for them to offer, such as preloaded Presto cards. Future technology improvements may also allow vendors to offer other fare products.

*Fares purchased by social and other agencies:*

Staff will work with the agencies that now purchase OC Transpo fares for their clients to ensure that their needs are met. In particular, as tickets will no longer be used, staff will make available to the agencies other ways to prepay single-ride fares that will meet the particular travel needs of their clients. These may include prepaid Presto cards, group sales of Presto cards, or special vouchers for use by the clients of these agencies.

### **Fare adjustment timelines and approvals**

The City's fiscal year is from January to December, with budgets typically being set in December for the following year. Fare prices have historically been in effect from July to June, with few exceptions. Adjusting the date at which fare changes take effect to January will align the fare pricing period with the budget year.

It is recommended that fare changes, except for the U-Pass, take effect on January 1 each year, instead of the current July 1, to match the City's budget year. The sole exception to this would be the U-Pass, which is contractually set to increase in September of each year, and a September change date for the U-Pass best matches the universities', colleges', and students' own processes and expectations.

Staff will propose in the budget directions report for 2017 that the annual fare increase occur on January 1, 2017. By advancing the date of the change, the increase in fares can be reduced from 2.5 per cent to 1.25 per cent, to ease the adjustment to the new fare structure and to still maintain the same amount of fare revenue for the fiscal year 2017. Because its implementation date would not be advanced, the U-Pass increase would remain at 2.5 percent, also to maintain the same fare revenue.

#### *Annual fare adjustments:*

Document 1 shows a structure of multipliers, discounts, and rounding rules to set all of the future fare types from a base fare. In future years budgets, staff would calculate the base fare using the recommended percent fare increase, and would then recalculate all of the fare types using this structure. A process such as this will avoid imbalances from year to year in the overall fare structure.

Staff recognizes that the January 1<sup>st</sup> date for a new fare table will require some kind of adjustment in a post-election budget year, given that a previous Council cannot commit a subsequent Council, and given that a post-election year budget is not generally completed until the end of Q1 in the year following the election. The City Clerk and Solicitor's office will work with the City Treasurer, the General Manager of Transit

Services and the Chair of Transit Services to recommend a process for addressing fare table increases in the budget year immediately following a municipal election.

### **Temporary hold for Para Transpo cash fares**

In May 2013, the Transit Commission and City Council approved a temporary reduction in Para Transpo cash fares to be consistent with Presto e-purse fares. This was in response to feedback from customers about a disparity between cash fares for Para Transpo customers and conventional bus and train customers who benefit from the use of lower Presto e-purse fares. This reduction has been renewed by Council for 2014-2015 and 2015-16, and currently ends on June 30, 2016.

The new ParaPay system is currently being tested by customers. Since there would be, from July 1, 2016, a discrepancy between the approved cash fares for Para Transpo customers and the discounted e-purse fares for conventional transit customers, staff recommend holding cash fares on Para Transpo at e-purse fares until December 31, 2016.

If it is recommended that this reduction in fare revenue for Para Transpo service continue to be funded from the capital budget for the Presto smartcard project. The estimated amount of fare revenue lost by holding the cash fare at e-purse rates is \$6,500 per month.

### **Ridership trends**

Staff continuously monitor the ridership levels of other Canadian and U.S. transit agencies using data collected through the Canadian Urban Transit Association (CUTA) and the American Public Transportation Association (APTA). In recent months and years, not unlike OC Transpo, ridership levels at many North American agencies have declined. In 2015, ridership levels for all Canadian agencies that have reported, to date, decreased by 1.5 per cent, with the largest 10 agencies seeing a 1.5 per cent decrease. In the United States, an overall decrease of 1.3 per cent was reported in 2015, with the largest 10 agencies seeing an average 1.5 per cent decrease. OC Transpo itself saw a decrease of 0.6 per cent in 2015.

OC Transpo ridership was at its highest level to date in 2011, with 103.5 million trips being made on conventional transit in that year. Since then, ridership has declined each year, with larger declines through 2012 and 2013, and moderate declines in 2014 and 2015. For 2016 year to date, ridership is up 0.6%. Twelve month ridership is at 97.2 million, the highest it has been since January 2014.

For several years, OC Transpo staff have carefully reviewed ridership changes and trends, including testing and analyzing various factors that influence a person's need to travel and decision to make their travel on public transit. While many factors can influence a person's need or choice to make a trip on public transit, the variables looked at most closely by staff include population, employed labour force, gasoline prices, and weather. Staff are only able to model variables where data for such variables is readily available.

These reviews have found that the employed labour force has been consistently, and remains, the most closely correlated variable to transit ridership in Ottawa. Monthly employment data is published at a high level from the Statistics Canada Labour Force Survey. In more recent years, even when total employment has risen, specific employment sectors have not risen to the same level, and as in the case of federal public service sector, some have decreased. The overall correlation is still tied well with employment levels, but specific industry changes, and changes to employment in specific geographic areas such as the downtown core, has affected transit ridership at a greater rate.

Staff continue to search for other sources of reliable statistical information to analyse and correlate against transit ridership. Recent work has been undertaken to review office vacancy and transaction quantities (sales and leases) across the city, and specifically in the downtown core, to get an indicator of geographic employment distribution. As an example, there was a significant drop in commercial real estate and office market transactions in 2015 compared to 2014, and a higher than historical average office market vacancy rate in the downtown core at the end of 2015. Staff are also aware of recent changes in the Ottawa market, including ridesharing, the aging population, e-commerce, and teleworking, all of which have some influence on trip-making and mode choice. Across North America, transit agencies are watching the effects on ridership of other changes such as the aging population, compressed work weeks, increased walking and cycling, parking availability and pricing. New data for the Ottawa region will be collected the next travel survey, to be completed as part of the preparation for the next Transportation Master Plan update.

A report on travel trends was recently completed, being funded by the City of Ottawa, the Société de transport de l'Outaouais (STO), and the Ministère des Transports du Québec (MTQ). The report finds that transit usage in the National Capital Region is high relative to peer transit agencies. It also explains some specific changes in region's travel behaviours. The report states that auto ownership per household has recently decreased, and that the percentage of trips on transit compared to all other modes

continues to rise. However, it cites a continued decrease in the overall trip-making rate since the 1980s, meaning that the number of trips made per capita, on all modes, is trending downward. Another important finding is that the overall average trip length is decreasing, which is consistent with maturing suburbs, and can mean that relatively short trips are more easily done by walk and bike modes. Suburban areas are expanding and maturing, with increases in suburban internalization, whereby trips start and end in the same suburban area. With less congestion in suburban areas during the peak periods, automobile trips become more popular for longer, but internal, trips. The research also noted that recent (post-2011) reductions in transit ridership appear to be a result of a decline in federal government workers, many of whom work downtown.

### **Ridership modelling**

In order to better understand the various factors that influence transit ridership, OC Transpo retained Resource Systems Group (RSG), a well-regarded consulting firm with substantial expertise in the field. Staff asked RSG to review the City's current short-range and long-range forecasting models and to advise whether there were any immediate improvements that staff could make to their methods. RSG was complimentary of the current staff work and also suggested some new methods, described below.

The focus of the short-range model review was to understand the apparent difference between modeled and actual ridership that appeared in April 2012 and to propose an approach for closing this gap by trying to understand the root cause.

The chart below compares the monthly modelled ridership, based on the variables described earlier, with the actual ridership measured from fare revenue. The chart shows the variation between the model and actual ridership that began in 2012.

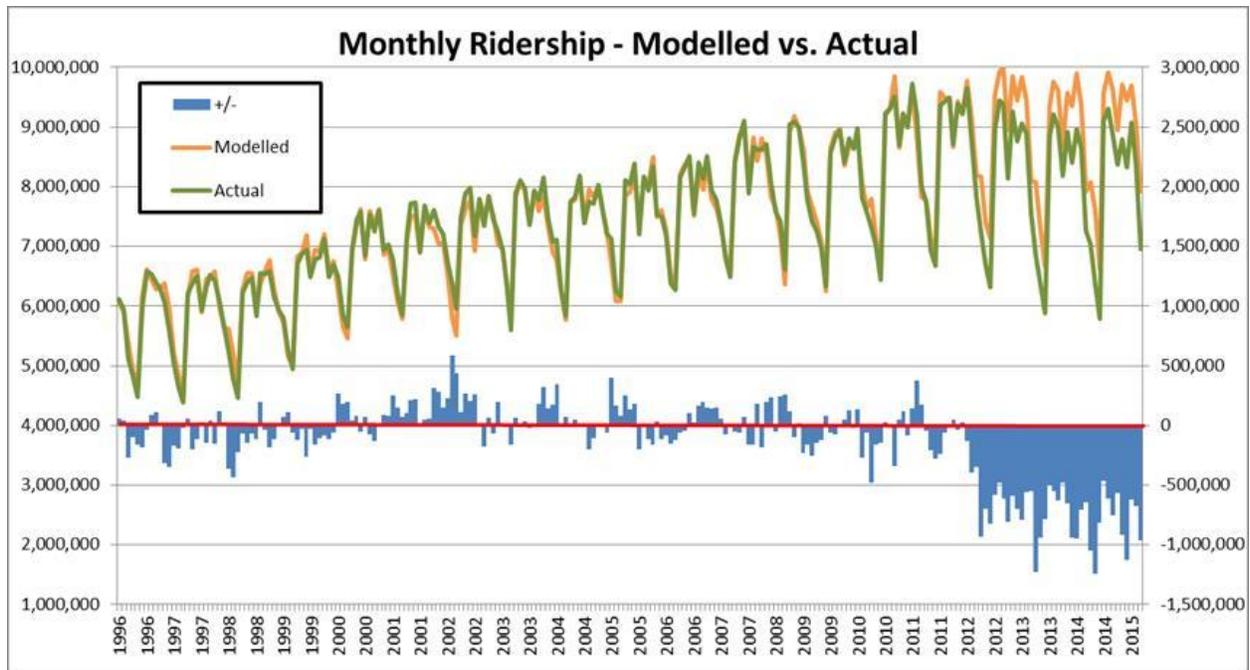


Figure 1: Monthly Ridership - Modelled vs. Actual

The model does an excellent job matching actual monthly ridership from 1996 until 2012. Beginning in April 2012, differences between observed and modelled ridership began to emerge and grew in magnitude until June 2012. After June 2012, the difference stopped growing and is now generally between 500,000 and 1,000,000 monthly trips. The model consistently predicts more trips than are actually carried by OC Transpo. Although the difference has not grown since 2012, the month-to-month variation is much higher than before 2012.

The suddenness of the change suggests that a major change occurred in early 2012 affecting either actual ridership or the estimate of actual ridership. Along with RSG, staff identified several items that could have been part of the change. Some are changes that occur gradually, such as increased cycling, teleworking, or alternative work schedules. Some are particular to 2011-12, such as federal employment reductions, federal office relocations outside downtown, the restructuring of fares with the full implementation of Presto, the annual fare increase, and the route changes that were made in 2011. Neither RSG nor staff have been able to pinpoint one or a combination of these as the cause of the variation in the ridership model, but this matter has influenced the recommendations that RSG made.

The number of linked trips (a customer's complete trip from their origin to their destination) at OC Transpo (and most transit systems which use a proof-of-payment system on high-volume routes) can never be known with certainty and is instead an

estimate. At OC Transpo, linked trips are estimated from fare revenue data that are counted precisely and can be considered reliable. The process used to convert fare revenue data to linked trips relies on a series of assumptions that are based, in some cases, on information gathered over 20 years ago and may have substantially changed over the intervening years. Data are now available from Presto card use, and data will in future be available from fare gate use at O-Train stations, and these new sources will help to improve the estimates.

Given the inherent uncertainty in estimating monthly linked trips, one RSG recommendation was for OC Transpo to consider adding a series of ridership-related statistics to its regular monitoring reports so that anomalies between different statistics could be easily identified and immediately researched. Once identified, these situations can be researched and compared to external events (for example, layoffs, fare policy changes, service changes, and data collection procedural changes) that might be responsible for the ridership anomalies.

RSG has recommended, and OC Transpo has adopted, the following actions in an effort to better understand the variables in order to better predict future ridership:

- Determine the reliability of linked trip estimates by revisiting assumptions used to convert fare revenue into ridership estimates;
- Examine other sources of data that represent ridership, including automated passenger counting systems and total fare revenue, to determine whether the change in ridership is matched by other variables;
- Track multiple ridership metrics every month to confirm whether all measures are tracking up or down together, and to identify any unusual situations that may need additional review;
- Retain and update OC Transpo's short-range model and as an interim approach, introduce a new correction factor that revises ridership estimates to match observed levels post 2012;
- For budgeting in a future year, use actual monthly ridership from the previous year with a percentage adjustment to reflect growth in employment and other ridership trends that have emerged.

As part of the ridership review, RSG also recommended new elasticity assumptions. RSG suggests using an elasticity of -0.36 to test fare increases above the rate of inflation; that is, that for every 1.00 percent increase in fares in real terms, a ridership

reduction of 0.36 percent should be expected. RSG also suggests using an elasticity of zero for fare reductions or increases below the rate of inflation; that is, no new ridership should be expected if fares are reduced in real terms. RSG also suggested that OC Transpo consider applying different elasticities to different customer groups, and staff will follow-up on that recommendation.

Staff have engaged with the transportation statistics specialists at Statistics Canada and will work along with them and with other transit systems that are part of CUTA, as the whole transit industry seeks to understand how the major changes in trip-making and travel choice described above are affecting transit use.

### **RURAL IMPLICATIONS**

The transformation of the bus route network to coordinate with O-Train Confederation Line service will affect most existing bus routes, including rural services. OC Transpo rural services will connect with the O-Train Confederation Line at one of the major hub stations. Rural partner services from outside Ottawa will be invited to connect at one of the major hub stations.

### **CONSULTATION**

In order to gauge customers' views of the fare system recommendations made in this report, staff conducted a series of focus groups with customers. Customers were asked for their views not only for the effects the recommendations would have on themselves, but also for the appropriateness for the complete transit system. Overall, the focus group participants understood the reasons for the change and supported them, in particular the recalibration of fares with the end of direct-to-downtown express service. The participants also identified the challenges inherent in any simplification of the fare system and the different effects that would apply to different customer groups. Almost all of the participants estimated that they would use transit as frequently or more frequently after the O-Train Confederation Line opens than they do now.

### **ADVISORY COMMITTEE(S) COMMENTS**

This has not been considered by Advisory Committees.

### **LEGAL IMPLICATIONS**

There are no legal implications to the Transit Commission and City Council considering this report.

In doing so, Commissioners and Councillors may have reference to the Council approved Terms of Reference for the Transit Commission. With respect to this report, the following “Matters for Which the Commission is Responsible to Council” include the following:

### **The Transit Commission shall**

- 3. Review and recommend to Council transit fares, the annual operating and capital budget for the Transit Services Department.**

Furthermore, the Terms of Reference also provide the Transit Commission with the following responsibilities under delegated authority which may also be relevant when considering this report:

- 4. Pursue the following objectives in order to provide the best possible public transportation service for all transit users:**
  - a. Attract an increasing number of customers to transit;**
  - b. Determine and meet the transit needs of residents and visitors;**
  - d. Provide a transit service that is accessible and affordable; and**
  - f. Strive to develop and maintain a system that is adaptable to emerging changes in technology.**

It is suggested that, taken as a whole, these provisions in the Terms of Reference are relevant as this report seeks to meet the objectives set out therein and provides the legislative framework for moving this matter forward from the Transit Commission to City Council.

### **RISK MANAGEMENT IMPLICATIONS**

There are risk implications. These risks have been identified and explained in the report and are being managed by the appropriate staff.

### **FINANCIAL IMPLICATIONS**

The anticipated changes reflected in the report are revenue neutral.

### **ACCESSIBILITY IMPACTS**

There are no accessibility impacts as a result of the fare restructuring or changes to fares.

## **TERM OF COUNCIL PRIORITIES**

This report supports the following 2015-2018 Term of Council priorities:

*Transportation and Mobility* – Meet the current and future transportation needs of residents and visitors through Phase 1 and Phase 2 of the Transportation Master Plan, including ensuring the City’s transit services are reliable and financially sustainable. Continued focus on improving mobility during the LRT implementation, and support for alternative transportation methods including cycling and walking, as well as transit.

*Service Excellence* – Improve client satisfaction with the delivery of municipal services by measurably strengthening the culture of service excellence at the City, by improving the efficiency of City operations, and by creating positive client experiences.

*Financial Sustainability* – Practice prudent fiscal management of existing resources, and make sound long-term choices that allow City programs and services to be sustainable.

*Governance, Planning and Decision Making* – Achieve measureable improvement in residents’ level of trust in how the City is governed and managed, apply a sustainability lens to decision-making, and create a governance model that compares well to best-in-class cities around the world.

## **SUPPORTING DOCUMENTATION**

Document 1 - Recommended Fare Table, Based on 2016 Fare Levels immediately follows the report.

## **DISPOSITION**

Staff will undertake any further direction from the Transit Commission.

Transit Services staff together with Legal Services will prepare the required amending By-law to give effect to the fare changes approved by Council as part of the 2016 Budget to be in effect on July 1, 2016.

Transit Services staff and Legal Services, upon approval by Council of this report, will work together to bring forth a required amending By-law to reflect the fare changes, fare instruments, and any other necessary provision consistent with the recommendations.

## Document 1

Table 1: Recommended Fare Table, Based on 2016 Fare Levels

	Price	Multiplier/ discount
<b>Base fare</b>		
Base fare	\$3.30	
<b>Single-ride fares</b>		
Adult e-purse fare	\$3.30	100% of the base fare Rounded up to the nearest nickel
Seniors' e-purse fare	\$2.50	25% discount from the base fare Rounded up to the nearest nickel
Child e-purse fare	\$1.65	50% discount from the base fare Rounded up to the nearest nickel
Adult cash fare	\$3.35	Adult e-purse fare plus \$0.05
Seniors' cash fare	\$2.55	Seniors' e-purse fare plus \$0.05
Child cash fare	\$1.70	Child cash fare plus \$0.05
Discounted Para Transpo fare with Access Pass	\$2.20	2/3 of the base fare Rounded up to the nearest nickel
Rural Para Transpo fare	\$9.00	2.7 x the base fare Rounded up to the nearest quarter
<b>Monthly fares</b>		
Adult monthly pass	\$112.25	34 x the base fare Rounded up to the nearest quarter
Youth monthly pass	\$86.50	23% discount from the adult monthly pass Rounded up to the nearest quarter
Seniors' monthly pass	\$42.75	62% discount from the adult monthly pass Rounded up to the nearest quarter
Community monthly pass	\$41.75	63% discount from the adult monthly pass Rounded up to the nearest quarter
Access monthly pass	\$41.75	63% discount from the adult monthly pass Rounded up to the nearest quarter
<b>Other passes</b>		
U-Pass per semester	\$197.52	Fixed by contract
Day pass	\$10.00	3 x the base fare Rounded up to the nearest quarter