

# Minutes for BRS-Transit meeting

## Monday, 16 April 2018 @ 3:30-4:40PM

Location: Committee Room 1114 at the COC

Present: Cory Shrigley, Allison Gray, Harold Matthies from Transit; Peter Gallén, Curtis McCoshen, Jim Wood from BRS.

### FOLLOW-UPS

#### 1) Fare Review

- a. Harold Matthies, Transit Technology Coordinator at Saskatoon Transit, made a much appreciated presentation on the intricacies of current and contemplated fare payment systems (details in separate report below).
- b. A new fare payment system is much needed and the Request for Proposal is in the works. Seamless integration of hardware, software, network and payment systems and products (including most smart-phones) from multiple vendors into a robust, user-friendly, well-functioning and fast enough fare collection system in heavy daily use is a real challenge. In addition, the new system should remain viable for the next 15 years.

### NEW ITEMS

#### 1) Next steps in the BRT, new Conventional Transit Network and related Growth Plan projects:

- a. In early June, the BRT-plan and the AAA Cycling Network plan will go to Council Committee.
- b. On June 11, the Imagine Idylwyld plan will go to Council Committee.
- c. On June 25, all the above Growth Plans will go to Council.
- d. Transit Villages will go to Committee and Council in the fall.

#### 2) Provincial Budget, April 2018: BRS expressed concern about the implications of a statement in the Star-Phoenix on Saskatoon's implementation of BRT and other transit-related projects:

"Clark [Mayor of Saskatoon] said Saskatoon has been working hard with the province to get a cost-sharing program for public transit. But it won't

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happen this year. Despite federal funding coming online for transit, Tuesday's budget contributed no matching funds.

Kaeding [Saskatchewan's Government Relations Minister] said the province is trying to work with Ottawa to redirect that money to other infrastructure projects: 'The provincial government here has never funded any public transit,' he said. 'There is a large segment that they want to designate to public transit. We're just saying, maybe that doesn't meet the full needs of this province.'"

### 3) Notices from Transit to BRS:

- a. On the week-end Transit took part in the Living Green Expo with attendees from all over Canada. Transit showed off their brand-new 10-metre bus and provided a staffed display that described the City's third Frequent Transit Corridor (coming July 1 to the north-east part of the city) as well as the Bus Rapid Transit plan.
- b. This year Transit will become part of University of Saskatchewan's annual U-Start events where newly accepted students are informed about campus life. For the first time Transit will have a 'station' where they have a 5-minute opportunity to introduce these new students to transit and the U-Pass and give them an idea of where best to live if they plan to take advantage of the Transit System.
- c. Transit is contemplating a health shuttle route using the new, smaller buses that have just been put into service.
- d. Transit reminded us about the next-day 2018 Service Changes Open House, where the new (third) Frequent Transit Corridor to the north-east part of the city will be discussed in detail; comments and suggestions for improvement were requested.
- e. Transit informed us that the section on their website called 'Transit 101' has been updated (see <https://transit.saskatoon.ca/rider-guide/transit-101>)
- f. BRS received copies of 'Saskatoon Transit 2017 Annual Report', which was presented to the Standing Policy Committee on Transportation that same day. It was noted that the report also includes an overview of Transit's plans for the near future ('Our Work – Moving Forward', pp. 19-23). The Annual Report is available for download from: <https://pub-saskatoon.escribemeetings.com/FileStream.ashx?DocumentId=50584>

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**NEXT MEETING:** Monday, 28 May 2018, 3:30 – 4:30 pm at City Hall (to be confirmed closer to the date)

### **Saskatoon Transit's current and contemplated Fare Collection System**

At the regular monthly meeting between Bus Riders of Saskatoon (BRS) and Saskatoon Transit on 16 April 2018, Harold Matthies, Transit Technology Coordinator (and former Operations Manager) at Saskatoon Transit, gave a presentation on Saskatoon's current and contemplated Fare Collection System and related Intelligent Transportation System.

The first thing that became eminently clear is how complex a modern, fully integrated Fare Collection System really is. Although only two major system components need to interact, namely the Fare Box and the Intelligent Transportation System (ITS), each of which was purchased from separate vendors (hardware manufacturers and software developers), the overall system is reliant on multiple ITS subsystems that have evolved over many years. The result is an overall system where differences exist between individual buses, and even various subcomponents of the back-end systems may start having difficulties. Thus the best timing of ITS subcomponent upgrades/replacements also becomes one of the challenges in upgrading the Fare Collection System.

This document has been prepared by BRS based on our discussion with Transit and information gleaned elsewhere.

#### SASKATOON TRANSIT'S CURRENT FARE COLLECTION SYSTEM

- Fare Box:
  - purchased in 2009 through Request for Proposal (RFP)
    - accepts coins only for on-board purchase of single trip
    - prints paper ticket for single trip (including transfer)
    - includes bar-code scanner to verify paper ticket at transfer
    - includes magnetic card-reader for 'GoPass' transit cards
    - includes a micro-processor based Operator Box for management of each transaction
    - stores all transactions in the fare box's internal memory
    - includes automatic upload of stored data by Wi-Fi upon entry to the Civic Operations Centre (COC)

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- used to work well as a stand-alone unit, but proved difficult to modify for enhanced capabilities
- major drawback:
  - no on-board reload of GoPass
  - no Smart Phone capabilities
  - unreliable onboard card reader
  - unreliable onboard coin validator
  - unpredictable and frequent mechanical failure

### SASKATOON' TRANSITS CURRENT INTELLIGENT TRANSPORTATION SYSTEM (ITS)

- ITS software:
  - Trapeze NOVUS is currently used for interaction between transit vehicles and Civic Operations Centre (COC)
  - Trapeze TransitMaster was recently purchased as its replacement for installation in the Fall of 2018.
  - Both Novus and Transit Master are available on ~ 90% of the current buses
  - Geo Positioning System (GPS): on 90% of buses
  - Automatic Passenger Counters (APC): on the 15 Nova buses purchased in 2018. Future bus purchases will include APC's

### DESIRED CAPABILITIES OF NEW FARE COLLECTION SYSTEM

From Transit's point of view, the purpose of the Fare Collection System is to collect the appropriate Fare from the Rider and provide the Rider with the necessary proof ('ticket'), while also collecting ridership statistics. From the Rider's point of view, the purchase of Fares for trips should be as versatile and convenient as possible. It should be noted that the field is in flux and the possibilities are constantly expanding.

- Upon boarding each segment of a trip, collect the appropriate fare from the rider, including acknowledgement of a valid transfer
- Be able to accept fare payment using an ever expanding variety of methods:
  - cash (coins or bank notes);
  - pre-paid paper or electronic ticket;
  - dedicated Transit Pass: pre-loaded, single trips (electronic tickets); unlimited, time-restricted trips (monthly/annual pass); pre-loaded cash.
  - Mobile Ticketing:
    - Bank Card (Debit or Credit) or other Smart Card; and
    - Smart Phone (variety of operating systems: iPhone, Android, etc.).

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- Difficulties arise in providing robust and convenient methods:
  - for the Rider herself to pre-load electronic fares (trips or cash) onto dedicated Transit Passes, other Smart Cards, and Smart Phones.
  - for the Fare Box to withdraw the pre-loaded fare stored on a variety of Smart Phones and Smart Cards other than Transit's own GoPasses
  - for the Fare Box to make a withdrawal of 'cash'-payment from the Rider's bank account using a variety of Smart Phones and Smart Cards; it should be noted that live interaction with third-party payment providers (e.g., Moneris) is required in this case
- The new Fare Collection System should include provisions to accommodate changes in the Fare Structure, noting this has both hardware and software implications on each bus.
- Ideally be capable of accommodating the ever more complex network of independent but interacting transportation providers, e.g., Mobility as a Service (MaaS)

### SASKATOON'S CONTEMPLATED, NEW FARE COLLECTION & RIDERSHIP COUNTING SYSTEMS

- ITS:
  - Trapeze Transit Master will become the main ITS software for interaction between transit vehicles and the COC
  - Automated Vehicle Location (AVL) technology is installed on 90% of the fleet and will be installed on all future buses.
  - Automatic Passenger Counters (APC) will be installed on all doors of all buses purchased from now on.
- The new Fare Collections System should have a functional life span of not less than 15 years, and:
  - be prepared for rapid boarding on Bus Rapid Transit (BRT) through all doors
  - include advanced Mobile Ticketing options
- Fare Box replacement is being considered for Phase II of federal PTIF/ICIP funding