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# Bus Rapid Transit & the Downtown All Ages and Abilities Cycling Network – Downtown Routing Options

## Recommendation

That the report of the General Manager, Community Services Department, dated June 20, 2018, be received as information.

## Topic and Purpose

The design of both the Bus Rapid Transit system and the Downtown All Ages and Abilities Cycling Network have implications on the transportation network within the Downtown. This report presents potential routing options and the implications of those routing options for both networks.

## Report Highlights

1. The Bus Rapid Transit (BRT)/Transit Plan and the Downtown All Ages and Abilities (AAA) Cycling Network projects have been developed based on principles from the Growth Plan to Half a Million (Growth Plan) and Active Transportation Plan and have been planned and analyzed in an integrated way.
2. BRT network options have been evaluated for Nutana and Downtown to validate the routing proposed in the Growth Plan.
3. The preferred option for providing dedicated transit lanes is to time construction of the lanes through consultation with adjacent stakeholders and within the funding window of the Federal and Provincial Governments.
4. Should the BRT routing be shifted away from 3<sup>rd</sup> Avenue, the Administration's analysis has shown that 3<sup>rd</sup> Avenue becomes the preferred location for an AAA cycling facility, replacing the AAA facility proposed for 4<sup>th</sup> Avenue.

## Strategic Goal

This report supports the City's Strategic Goals of Moving Around and Sustainable Growth by advancing to implementation of the Transit Plan and Active Transportation Plan components of the Growth Plan.

## Background

At its April 25, 2016 meeting, City Council approved, in principle, the Growth Plan. The Growth Plan report, and its technical reports, identified the proposed BRT network and configuration. The recommended network is as follows:

- 1) Red Line (west to east): 22<sup>nd</sup> Street – 3<sup>rd</sup> Avenue – 25<sup>th</sup> Street – University Bridge – College Drive:
  - North Leg: Preston Avenue – Attridge Drive
  - South Leg: Preston Avenue – 8<sup>th</sup> Street

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- 2) Blue Line (north to south): Primrose Drive – Warman Road – 33<sup>rd</sup> Street – Idylwyld Drive – 25<sup>th</sup> Street – 3<sup>rd</sup> Avenue – 19<sup>th</sup> Street – Broadway Bridge – Broadway Avenue – 8<sup>th</sup> Street – Preston Avenue

During its November 20, 2017 meeting, City Council resolved, in part:

“That the preferred configuration and conceptual network for the Bus Rapid Transit system, as outlined in the report of the General Manager, Community Services Department dated November 6, 2017, be approved as the basis for further engagement and design.”

The preferred configuration generally validated the Growth Plan, including the recommended BRT network, and identified the main components of the Red and Blue BRT lines, which includes Transit Signal Priority Measures, Roadway Geometric Measures, Stations, Customer Systems, and Runningways.

In November 2017, City Council received a report on the evaluation results of the Protected Bike Lane Demonstration Project and an outline of recommended next steps for the provision of the AAA Cycling Network in the Downtown. At that meeting, the following recommendations were resolved, in part:

- “1) That a provision for protected bike lanes be included in the Downtown All Ages and Abilities cycling network;
- 2) That the Administration develop a Downtown All Ages and Abilities cycling network (including protected bike lanes) in concert with other Downtown policy and planning initiatives in 2018; and
- 3) That the existing protected bike lanes on 23<sup>rd</sup> Street (from Spadina Crescent to Idylwyld Drive) and 4<sup>th</sup> Avenue (from 20<sup>th</sup> Street to 24<sup>th</sup> Street) be retained until the Downtown All Ages and Abilities cycling network is presented to City Council.”

### **Report**

#### Principles for BRT and Downtown AAA Cycling Network

The BRT/Transit Plan and Downtown AAA Cycling Network projects have been developed based on principles from the Growth Plan and Active Transportation Plan and have been planned and analysed in an integrated way since both will be making recommendations for use of rights-of-way in the Downtown.

#### Principles for BRT

The Growth Plan defines the goal and objectives for the transit system (see Attachment 1).

The Growth Plan defined the BRT route based on putting it “where the people are” i.e. where land use conditions are already supportive of transit, and where it enables connections between locations with high employment, many residents, and/or other major destinations, using as direct a route as possible.

In some cases, evaluation of alternate routes was necessary. The Growth Plan used criteria based on existing suitability and future potential (see Attachment 1).

#### Principles for Downtown AAA Cycling Network

Three AAA network principles were established to ensure that the streets selected would be suitable for hosting an AAA cycling facility:

- a) Safety: cyclists are considered vulnerable road users, their safety requires special consideration;
- b) Comfort: to attract new cyclists, the facility must be comfortable; and
- c) Connectivity: cycling facilities must connect not only to other facilities but also to key destinations in order to be practical and useful routes.

The suitability of transforming Downtown streets to provide an AAA cycling network was assessed related to twelve key factors and considered potential impacts on various Downtown users. The assessment did not weigh any category above another, rather, the assessment was used to understand the trade-offs among all road users that results from the inclusion of an AAA cycling facility.

Details on the assessments for both the BRT/Transit Plan and the Downtown AAA Cycling Network are discussed in earlier reports on the agenda for this Committee meeting.

#### Downtown AAA Proposed Network

As per the results of the Downtown AAA Cycling Network Study, outlined in the earlier report on this agenda, the proposed AAA network configuration includes:

- a) North-South streets: Idylwyld Drive (consistent with the Imagine Idylwyld project), and 4th Avenue; and
- b) East-West streets: 23rd Street and 19th Street.

The proposed streets introduce a network of AAA cycling facilities in the Downtown, providing an interconnected system of facilities that is comfortable and attractive for all users, achieves the desired coverage of 400 metre spacing of facilities, provides access to major Downtown attractions, key employment areas, and recreational areas Downtown, and connects Downtown with all areas of the city.

#### BRT Network Options for Downtown

The following routing options through Downtown were analysed and are potential route selections for the BRT system:

- 1st Avenue from 25<sup>th</sup> Street to 19th Street;
- 2<sup>nd</sup> Avenue from 25<sup>th</sup> Street to 19th Street;
- 3<sup>rd</sup> Avenue from 25<sup>th</sup> Street to 19th Street; and
- 4<sup>th</sup> Avenue from 25<sup>th</sup> Street to 19th Street.

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These route options were discussed in greater detail in the BRT Technical Analysis report. Attachment 4 illustrates the conditions, and the implications of the potential Downtown routes on the BRT system.

### **Preferred Route Option: 3<sup>rd</sup> Avenue**

The preferred routing is 3<sup>rd</sup> Avenue due to its central location, functionality, relatively low traffic volumes, road width, supportive land uses and opportunities for future development to occur. Attachment 5 illustrates the walking coverage and the density of employment and residences of the Downtown.

Through stakeholder engagement, the Administration heard an interest to shift the BRT route to 1<sup>st</sup> Avenue. Implementing BRT on 1<sup>st</sup> Avenue is technically feasible and the implications are outlined in Attachment 4. The Administration also heard that should BRT be shifted to 1<sup>st</sup> Avenue, there was an interest to implement the AAA cycling facilities on 3<sup>rd</sup> Avenue.

### **AAA Network Option Tied to BRT Option**

3<sup>rd</sup> Avenue was reviewed as a potential corridor for an AAA cycling facility, however, it was determined that the presence of centre-running BRT did not leave enough right-of-way for a AAA cycling facility to be located along this street in conjunction with BRT. As such, 3<sup>rd</sup> Avenue was removed from further consideration for the AAA cycling network. Should the BRT corridor be shifted away from 3<sup>rd</sup> Avenue, the Administration's network analysis showed that 3<sup>rd</sup> Avenue was preferable to 4<sup>th</sup> Avenue for an AAA cycling facility through the Downtown. The summary of the assessment for each key factor is shown in Attachment 7).

### **BRT Network Options for Nutana**

The following routing options through Nutana were analysed and are potential route selections for the BRT system:

- Victoria Avenue from Traffic Bridge to 8<sup>th</sup> Street;
- Victoria Avenue from Traffic Bridge to Main Street to Broadway Avenue to 8<sup>th</sup> Street with a station at Main Street and Broadway Avenue;
- Broadway Avenue from Broadway Bridge to 8<sup>th</sup> Street; and
- Idylwyld Drive from Senator Sid Buckwold Bridge to 8<sup>th</sup> Street was previously analysed as part of the Growth Plan.

The route options were discussed in greater detail in the BRT Technical Analysis report, also on the agenda for this Committee meeting. Attachment 2 illustrates the potential Nutana routes, conditions and the implications on the BRT system.

### **Preferred Route Option: Broadway Avenue**

As one of Saskatoon's first transit corridors, much of Broadway developed around a streetcar line. It is this transit-oriented land use and built form combined with the high concentration of retail and employment uses and nearby medium- and high-density residential that makes Broadway the preferred corridor to support rapid transit

development. Attachment 3 illustrates the density of employment and residences of the Nutana Area with the potential routes shown.

Through stakeholder engagement with the Broadway Business Improvement District, concerns about BRT on Broadway Avenue, specifically the presence and/or timing for implementation of dedicated runningways was identified, as well as concerns related to the impact to businesses during construction. The phasing for implementation of BRT will be developed with input from impacted stakeholders.

#### BRT Dedicated Transit Lane (Runningway) Options

BRT dedicated transit lanes have been identified for three locations:

- 1) 3rd Avenue, 25th Street to 19th Street;
- 2) College Drive, Clarence Avenue to Preston Avenue; and
- 3) Broadway Avenue, 12th Street to 8th Street.

The dedicated lane selection has been discussed in greater detail in the BRT Technical Analysis report.

The efficiencies of the proposed BRT system that differentiate it from typical bus transit are achieved by modest reductions in waiting times and reliability improvements across the entire system. When considered separately, any of the incremental improvements may appear to have little impact but taken as the sum, make a substantial improvement to the service provided and the likely ridership levels.

The options for the implementation of the dedicated transit lanes are shown in Attachment 6.

The preferred option is to time construction of dedicated lanes through consultation with adjacent stakeholders and within the funding window of the Federal and Provincial Governments. Further stakeholder engagement to create the implementation plan will be undertaken and reported on.

#### **Public and/or Stakeholder Involvement**

Public and stakeholder involvement for both projects were addressed in the accompanying Engagement Results report.

#### **Communication Plan**

The Administration has developed comprehensive communication and engagement plans for the Growth Plan implementation initiatives, including the BRT/Transit Plan Implementation and Downtown AAA Cycling Network projects.

The plans identify numerous opportunities to communicate project progress with the public through the project websites, engagement page, news releases, press conferences, monthly Plan for Growth newsletters, and a range of social media and

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public space communication channels. Also, each component of the Growth Plan has identified stakeholder and public engagement touchpoints.

### **Financial Implications**

There are no financial implications as a direct result of this report. More detailed plans/designs and an implementation plan with funding options will be brought forward in due course.

### **Safety/Crime Prevention Through Environmental Design (CPTED)**

CPTED Review will be conducted at the appropriate times during the functional planning and detailed design phases

### **Other Considerations/Implications**

There are no policy, environmental, or privacy implications or considerations.

### **Due Date for Follow-up and/or Project Completion**

A report dealing with next steps and implementation is submitted as part of this report package.

### **Public Notice**

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

### **Attachments**

1. Goal for Transit – Growth Plan to Half a Million
2. Nutana Potential BRT Route Options
3. Nutana Employment and Residential Density map
4. Downtown Potential BRT Route Options
5. Downtown Employment and Residential Density map
6. Options for the Implementation of Dedicated Transit Lanes
7. Downtown AAA Cycling Network: Summary of 3<sup>rd</sup> Avenue Assessment

### **Report Approval**

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