TORONTO

STAFF REPORT ACTION REQUIRED

Ten Year Cycling Network Plan

Date:	May 3, 2016
To:	Public Works and Infrastructure Committee
From:	General Manager, Transportation Services
Wards:	All
Reference Number:	P:\2016\Cluster B\TRA\TIM\pw16009tim.docx

SUMMARY

The Ten Year Cycling Network Plan will serve as a comprehensive roadmap and workplan, outlining the City's planned investments in cycling infrastructure over 2016-2025. This report provides an overview of the process undertaken to develop the Ten Year Cycling Network Plan and describes five implementation options for consideration in the 2017 Capital Budget process.

The Ten Year Cycling Network Plan will build on the City's existing network of cycling routes by identifying potential cycling network projects to fulfill the project mandate:

- **Connect** the gaps in our existing Cycling Network;
- **Grow** the Cycling Network into new parts of the City; and
- **Renew** the existing Cycling Network routes, to improve their quality.

Since November 2014, a significant amount of cycling impact analysis as well as public and stakeholder consultation has been undertaken. Extensive field work to inform new route feasibility assessments was undertaken to identify the proposed routes.

The proposed Ten Year Cycling Network Plan identifies approximately 525 centreline kilometres (km) of new infrastructure (if counted in each lane direction, more than 1000 lane km). This proposed new network includes;

- 280 centreline km of bicycle lanes or cycle tracks on Fast, Busy Streets
- 55 centreline km of sidewalk-level boulevard trails along Fast, Busy Streets
- 190 centreline km of cycling routes along Quiet Streets

Included within this proposed network are approximately 100 centreline km along eight arterial roadways (split into seventeen segments) for which Major Corridor Studies would be undertaken to evaluate the feasibility of bicycle lanes or cycle tracks.

The deliverables recommended in this report represent the outcome of cycling impact analysis, feasibility analysis, capital works coordination and consultation. Subject to the approval of the recommendations from this report, Transportation Services would initiate the studies, detailed

design and public consultation required to deliver the cycling infrastructure projects contained in the Ten Year Cycling Network Plan. At the time that each proposed project is scheduled to be initiated, Transportation Services would work with local area councillors and undertake public consultation as part of the detailed design process and report back to Public Works and Infrastructure Committee for approval, as required.

RECOMMENDATIONS

The General Manager, Transportation Services recommends that:

1. City Council adopt the Ten Year Cycling Network Plan as outlined within this report and mapped by district in Appendix 1-4.

2. City Council direct the General Manager, Transportation Services to consider as part of the annual capital and operating budget process the capital funding required to implement the proposed Ten Year Cycling Network Plan at a rate of $16 million dollars annually as outlined in Scenario 3 in Appendix 8 as well as the operating budget required to fund the maintenance costs of newly constructed cycling infrastructure.

3. City Council authorize the General Manager, Transportation Services to undertake detailed design and public consultation required to deliver cycling infrastructure projects contained within the Ten Year Cycling Network Plan.

4. City Council authorize the General Manager, Transportation Services to undertake and manage the Major Corridor Studies identified for new cycling infrastructure contained within the Ten Year Cycling Network Plan and report back to Public Works and Infrastructure Committee on each study's recommendations.

Financial Impact

The estimated cost to implement the Ten Year Cycling Network Plan is approximately $153.5 million over the 2016 – 2025 ten year period, representing an increase of roughly $56.5 million over the 2016 Capital Budget and 2017-2025 Capital Plan for Transportation Services.

The estimated cost to implement the Cycling Network Plan 2016 Implementation Program was approximately $13.5 million, representing an increase of approximately $4 million more in 2016 than was included in the 2015 Capital Budget and 2016-2024 Capital Plan.

Transportation Services has developed five annual capital funding scenarios identified as $8 million (Base Case), $12 million, $16 million, $20 million and $25 million annually for the remainder of the ten year infrastructure delivery program (2017 – 2025) to Connect, Grow and Renew Toronto's Cycling Network. The five proposed delivery scenarios consider opportunities for coordination with planned capital work. The extent to which coordinated delivery of cycling infrastructure is possible is contingent upon the budget scenario that is adopted. Appendix 5 of this report includes the details for all five funding scenarios. All of the scenarios assessed could be further enhanced through funding support from other orders of government. In addition, Transportation Services staff are actively reviewing opportunities for cycling infrastructure

funding from the Provincial and Federal governments.

This report recommends that the Cycling Network Plan be funded at a rate of $16 million annually as outlined in Scenario 3 in Appendix 8. In order to deliver on an increased capital budget for cycling infrastructure, Transportation Services would require increased capacity particularly in the area of project management staff. The recommended scenario identifies the need for four new staff in 2017 and two new staff in 2018. New staff resources would be entirely focused on the delivery of the capital projects identified in the Cycling Network Plan and the positions are proposed to be funded from the Capital budget.

The cycling facilities proposed in the Cycling Network Plan would require ongoing maintenance once installed. This maintenance service would include winter snow clearing and street sweeping to a level similar to the adjacent roadway (including enhanced winter maintenance on some routes). At an order-of-magnitude level estimation, the proposed full build-out of cycling network facilities contained within this report would result in incremental maintenance costs of approximately $1.2 million annually as the cycling network expands.

The additional funding requirements are not included in the 2016 Capital Budget and 2017-2025 Capital Plan or the 2016 Operating Budget for Transportation Services. Future capital and operating funding for the Ten Year Cycling Network Plan will be considered against other unfunded City priorities in concert with the development of a financing strategy that will include various City and non-City sources.

The Deputy City Manager and Chief Financial Officer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

At its meeting of June 6, 7 and 8, 2012, City Council adopted a staff report PW15.2 "Toronto Bikeway Trails Implementation Plan". The Bikeway Trails Plan outlines projects to connect and grow Toronto's multi-use trails across the City as part of the Cycling Network. The proposed Ten Year Cycling Network Plan identifies and recommends on-street cycling routes so that together on-street and trail cycling network routes may complement each other and provide a cohesive system of cycling routes across Toronto.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2012.PW15.2

At its meeting on September 22, 2015, Public Works and Infrastructure Committee received a staff report PW7.5 “Ten Year Cycling Network Plan: Project Update and 2016 Implementation Program.” http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2015.PW7.5

At its meeting on March 1, 2016, Public Works and Infrastructure Committee requested Transportation Services to consider options for funding of $20 million per year and $25 million per year, in addition to other funding options, as part of the Ten Year Cycling Network Plan report to Public Works and Infrastructure Committee.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.PW11.7

ISSUE BACKGROUND

The Toronto Bike Plan, adopted by City Council in 2001, set out an ambitious agenda for making Toronto a great city for cycling. This comprehensive visioning document included policy recommendations for bicycle friendly streets, safety, education, bike-transit integration and bike parking programs, and the recommendation that Toronto develop a bikeway network that would be accessible to every Toronto resident.

The 2001 Bike Plan identified two primary goals; to double the number of bicycle trips made in the City of Toronto as a percentage of total trips by 2011, and to reduce the number of bicycle collisions and injuries. Since 2001, approximately 188 centreline kilometres of dedicated on-street cycling infrastructure have been installed. According to the 2012 National Household Survey, the transportation mode share for cycling is approximately 2.2% city-wide, compared to 1.3% in the 2001 Census. While the total number of collisions have remained generally the same in recent years, given the increase in the number of people cycling, the corresponding rate of collisions has decreased.

Over the last few years, cycling infrastructure implementation in Toronto has focussed on delivery of the Bikeway Trails Implementation Plan and expansion of a separated bicycle lane network in the downtown. This has resulted in a major expansion of the cycling network with 40 centreline km of bikeway trails and 15 lane km of cycle tracks completed since 2011.

Ridership on new cycling network routes has increased substantially. Bicycle volume counts on Sherbourne Street bicycle lanes in 2012 reported a total of 1,200 daily cycling trips, northbound and southbound combined. After the upgrade to cycle tracks in 2014, the count rose to 3,500 daily cycling trips, northbound and southbound combined. The recent Richmond-Adelaide Cycle Track Planning and Design Study Pilot Project Preliminary Evaluation has also demonstrated significant ridership increases. On Richmond Street, the 2014 average daily eight hour westbound volume of approximately 500 westbound cyclists increased to approximately 1,300 westbound cyclists in 2015. On Adelaide Street, the 2014 average daily eight hour eastbound volume of approximately 550 cyclists increased to approximately 1,575 eastbound cyclists in 2015.

COMMENTS

This section of the report provides an overview of the process and strategy employed to develop the Ten Year Cycling Network Plan and identifies the proposed implementation strategy.

Cycling Impact Analysis

In order to develop the Ten Year Cycling Network Plan, geo-spatial planning analysis has been undertaken in eight areas to identify the streets where a cycling network route should have the most benefit. Each proposed route was scored in terms of how it performed in these areas.

- Current Cycling Demand;
- Potential Demand;
- Population and Employment Density;
- Coverage;
- Barriers;
- Safety Analysis;
- Connectivity; and
- Trip Generators

Current Cycling Demand analysis highlighted areas of the city where there are currently high volumes of cycling traffic, to understand where the greatest number of existing cyclists could benefit from new or upgraded cycling network routes. Potential Demand analysis highlighted areas where there is currently a high demand for short trips not currently being made by bicycle.

Population and Employment Density analysis mapped the number of residents and jobs per square kilometre to understand where the greatest number of people could access the cycling network. Coverage analysis applied a buffer (up to 0.5 km) around the existing network to quantify the number of new residents and/or employees that could be served if a proposed new cycling route were added to the existing network.

Barriers analysis informed opportunities to provide safer crossings, within 1 km in either direction from a barrier, including highways, railways, rivers, ravines, etc. Safety Analysis examined the locations of reported collisions involving cyclists.

Connectivity analysis highlighted bikeway projects that can close gaps in the existing network and provide routing options. Trip Generators analysis measured the number of key destinations and opportunities for multi-modal travel served by a bikeway project.

As part of the consultation process, safety and connectivity were identified as the two highest network design priorities by both internal and external stakeholders as well as the general public. A recurring theme from this input was that safe barrier crossings are critical to achieving network safety. In response to this input, the Cycling Impact Analysis scores for each analysis area were weighted evenly, except for connectivity and barrier crossings which were weighted more heavily.

Public and Stakeholder Consultation

Since November 2014, a significant amount of public and stakeholder consultation has been undertaken as part of this project over the course of two phases:

- Phase 1 - April to June 2015: Establishing Network Planning Priorities through an online survey, analysis of data from the Toronto Cycling App, and stakeholder meetings
- Phase 2 - June to March 2016: Consultations to develop and refine the Cycling Network Plan Draft Map

The Phase 1 survey and meetings were used to identify network design priorities, and inform the development of the draft map. Approximately 10,500 individuals across Toronto completed the Phase 1 online survey and over 90,000 trips were recorded by persons using the City's Cycling App smartphone platform. This input was used to inform the values and priorities that were applied in the planning process and to identify and map popular cycling routes.

As part of Phase 2 consultations, more than 7000 respondents provided feedback regarding the draft network map through both an online consultation platform and consultation events. Eight drop-in consultation events were staged at the City's Civic Centres and along major trails to further invite feedback from the public on the draft map.
Staff met with Cycle Toronto Ward groups to perform site visits and ward audits on a by-request basis. Formal consultation opportunities were also held in the form of four structured events:

- November 8-9, 2014: Ward group "Pre-Consultation" Workshop hosted by City Staff

- July 21, 2015: Phase 1 Consultation Outcomes and Draft Map Workshop hosted by City Staff
- November 21, 2015: Cycling Network Plan Update Presentation at Cycle Toronto Workshop
- February 20, 2016: Cycling Network Plan review of recommended projects - Meeting with each Ward Group

A comprehensive summary of all consultation activities undertaken in each phase of consultation and results are available at www.torontocyclingnetwork.info

Internal Consultations

Internal consultations within the Transportation Services Division and with Divisions such as City Planning, Employment & Social Services, Public Health, Parks, Forestry & Recreation, and Economic Development & Culture divisions have helped to broadly consider the development of the Ten Year Cycling Network Plan in achieving multiple city-building objectives.

Transportation Services hosted eight workshops with staff representatives from other City Divisions to seek input on the proposed plan. Workshops were held in each district to receive input which informed the draft map design on January 14-16, 2015 and May 8-14, 2015.

Extensive consultation has taken place with City Councillors regarding proposed projects in their respective wards as well as the overall vision for the Cycling Network Plan. Transportation Services staff invited all Councillors to participate in a drop-in Councillor briefing on June 15, 2015. Staff have requested individual meetings with all Councillors and meetings have taken place with 34 out of 44 Councillors between February 2015 and March 2016.

Use of Feedback in Project Analysis

Public consultation feedback identified that connecting and growing the cycling network were the primary concern of residents. All scenarios for the Cycling Network Ten Year Plan therefore focus the majority of programming resources on these outcomes.

Consultation regarding the draft network map provided residents with the opportunity to identify their top priorities for cycling network projects as well as identify projects as being of lower priority. This feedback was used to identify a public consultation score for each project. Public consultation scores for each project were employed as a tool to help gauge the demand for a proposed project. The consultation scores were used along with data-driven analysis of the project's cycling impact as a prioritization tool to help determine when a project should be programmed for installation.

Respondents identified the majority of desired start and end points along the major arterial road network, reinforcing that the commercial opportunities on these streets are important destinations. The greatest number of respondents were located in Toronto-East York, where a strong desire was expressed to close gaps in the existing bikeway network along major arterial roads. In North York, feedback was received that longer distance routes which safely cross the 401 were desired. In Scarborough and Etobicoke-York, desire lines were oriented as links into the existing bikeway network in Toronto-East York, with some north-south desire lines identified on arterial roads.

Feasibility Analysis and Cycling Facility Types

An extensive feasibility assessment process was undertaken which included fieldwork for each proposed project, including constraint analysis, property implications and approval requirements to inform preliminary project cost estimates.

It is recognized that Major Capital Infrastructure Coordination (MCIC) may considerably reduce the cost of implementation for some bicycle lane, cycle track and trail projects, as a result of construction efficiencies. MCIC opportunities have therefore been identified according to a variety of funding scenarios, to understand how different funding and scheduling options may affect the delivery of Cycling Network Plan projects. In the $8 million (Base Case) and $12 million scenarios, Transportation Services would be insufficiently resourced to coordinate with numerous major capital works projects scheduled over the next five years.

The Cycling Network Plan route recommendations are not intended to prescribe detailed designs with regard to cycling facility type. For network planning purposes, a range of appropriate designs may be recognized according for different street types.

For example, on "Fast, Busy Streets" such as arterial and major collector roadways, a dedicated facility such as a bicycle lane, buffered bicycle lane, or cycle track would be recommended. On very busy streets, opportunities for a boulevard trail may be included where clearway in the boulevard is available. On "Quiet Streets" such as local roads, a dedicated facility may not be necessary. When traffic speeds and volumes are low, this may represent a comfortable cycling environment with wayfinding sharrow markings, wayfinding signs, and potentially traffic calming, where appropriate. The City of Toronto applies standards and guidelines for cycling facility type selection from the Ontario Traffic Manual Book 18: Cycling Facilities.

Eight (8) major corridors have been identified as presenting opportunities to create City-wide connections. These corridors performed well in cycling impact analysis and public consultation, but require a higher level of review to assess the feasibility of introducing cycling infrastructure in conjunction with traffic impacts, transit impacts, public realm improvement opportunities and commercial pressures such as loading and parking. On these major corridors, it is recognized that to achieve any cycling network link, a Major Corridor Study (similar in scope to an Environmental Assessment Study) would be needed to properly access impacts and to consult with all affected stakeholders. The eight corridors have been segmented into seventeen (17) proposed Major Corridor Studies as projects within the Ten Year Cycling Network Plan.

Opportunities to safely cross major barriers such as highways, railways, and ravines are a significant factor in cycling network planning. Twenty (20) cycling network projects have been identified as proposed barrier crossings, including five (5) major grade separations (bridges or tunnels) in order to provide cycling facilities that cross major highways, railways, or ravines. These grade separations would provide important links to cross significant barriers and improve cycling network connectivity. Studies are recommended to further assess their feasibility and cost. A list of cycling network projects that represent proposed barrier crossings is included in Appendix 13.

In addition to new projects identified to connect and grow the cycling network, part of the mandate of the Cycling Network Plan will be to renew existing cycling network routes, to

improve their quality. Existing bicycle lanes can be "renewed" by updating or improving the quality of their signs and markings. In some cases this may include the addition of new markings to intersections or the addition of painted buffers. In some cases bicycle lanes may be upgraded to cycle tracks if it is feasible to add separation. Signed routes on quiet streets may be upgraded with the addition of wayfinding, shared-lane pavement markings, or with the additional traffic calming interventions to slow down or reduce the motor vehicle traffic. The Renew component of the Cycling Network Plan includes funding for this work as well as intersection safety improvements and the expansion of the City's new wayfinding signage strategy.

Furthermore, the Ten Year Cycling Network Plan incorporates continuing to deliver on projects identified in the 2012 Bikeway Trails Plan. Of the 77 km of trails identified in the 2012 Bikeway Trails Plan, 40 km are remaining that have been incorporated into the Ten Year Cycling Network Plan. The proposed Cycling Network Plan identifies and recommends on-street cycling routes that are well integrated with the bikeway trail routes to provide a cohesive system of cycling routes across the City.

Ten Year Cycling Network Plan - Implementation Program

The proposed Ten Year Cycling Network Plan identifies approximately 525 centreline kilometers (km) of new infrastructure (if counted in each lane direction, more than 1000 lane km). This proposed new network includes:

- 280 centreline km (560 directional km) of bicycle lanes or cycle tracks on Fast, Busy Streets;
- 55 centreline km (110 directional km) of sidewalk-level boulevard trails along Fast, Busy Streets; and
- 190 centreline km (380 directional km) of cycling routes along Quiet Streets.

Included within this proposed network are approximately 100 centreline km along eight arterial roadways (split into seventeen segments) for which Major Corridor Studies would be undertaken to evaluate the feasibility of bicycle lanes, cycle tracks, or boulevard multi-use trails. These comprise:

- Yonge Street
    - Steeles Avenue to Finch Avenue
    - Finch Avenue to Sheppard Avenue
    - Sheppard Avenue to York Mills Road
    - York Mills Road to Eglinton Avenue
    - Eglinton Avenue to Bloor Street
    - Bloor Street to Front Street
- Bloor Street
    - Dundas Street West to Keele Street
    - Keele Street to Sherbourne Street (includes Lansdowne Avenue / Dupont Avenue)
- Danforth Avenue
    - Broadview Avenue to Danforth Road
    - Danforth Avenue / Kingston Road (Danforth Road to Eglinton Avenue)
- Jane Street (South of Hwy 401 to Steeles Avenue)
- Kingston Road (Eglinton Avenue to Highland Creek Trail)
- Kipling Avenue (Bloor Street to Waterfront Trail)
- Midland Avenue

    - Steeles Avenue to Sheppard Avenue
    - Sheppard Avenue to Lawrence Avenue
    - Gatineau Trail to Waterfront Trail
- Lake Shore Boulevard West (Mississauga to Humber River)

Of these proposed network projects, approximately 41 lane km of routes were programmed as part of The Ten Year Cycling Network Plan: 2016 Implementation program. This 2016 program also includes the initiation of three Major Corridor Studies:

- Bloor-Dupont, between Keele Street and Sherbourne Street, to be informed by the results of the proposed 2016 pilot project;
- Yonge Street, between Finch Avenue to Sheppard Avenue, in conjunction with a streetscape study; and
- Yonge Street, between Bloor Street and Front Street, in conjunction with the Revitalizing Yonge - Downtown Yonge Street Functional Street Design Study.

Capital Funding Scenarios for Implementation

Transportation Services has developed five annual capital funding scenarios ranging from $8 million to $25 million annually for a ten year infrastructure delivery program to Connect, Grow and Renew Toronto's Cycling Network. The five proposed delivery scenarios consider opportunities for coordination with planned capital work. The extent to which coordinated delivery of cycling infrastructure is possible is contingent upon the budget scenario that is adopted.

Appendix 5 of this report includes the details for all five funding scenarios. The key aspects of each are summarized below. A summary of the project locations and proposed timing under each budget scenario are included in Appendix 6-10 of this report. The schedule of implementation of each project would be subject to change with the timing of coordination with planned capital work.

Scenario 1 - $8 Million Annually (Base Case)
The base case scenario would provide the resources necessary to initiate the design and delivery of approximately one third (27%) of the proposed network projects. The program would include the initiation of only six of the seventeen proposed Major Corridor Studies. However, for half of these studies and several other significant projects, Transportation Services would be insufficiently resourced to coordinate with major capital works projects scheduled over the next five years. The inability to leverage the coordination of projects will result in higher costs overall.

Scenario 2 - $12 Million Annually
This scenario would provide the resources necessary to initiate the design and delivery of approximately 51% of the proposed network projects. The program would include the initiation of thirteen of the seventeen proposed Major Corridor Studies, excepting the proposed studies along Midland Avenue and a study of the Highway 401 crossing of Yonge Street. In this scenario, the proposed Major Corridor Study of Danforth Avenue from Broadview to Danforth Road could not be initiated until 2019.

Scenario 3 - $16 Million Annually (Staff Recommended)
This scenario would provide the resources necessary to initiate the design and delivery of the

majority (85%) of the proposed network projects. The program would allow for sixteen of the Major Corridor Studies identified to be initiated, so as to complete impact analysis, design and consultation, however, insufficient funding would be available to fund the construction of the proposed cycling infrastructure that may be recommended in four of the studies within the ten year period (namely cycling facilities along Midland Avenue and a Highway 401 crossing of Yonge Street would be unfunded). Based on upcoming infrastructure funding opportunities from the Provincial and Federal government which are expected to include active transportation projects as a funding priority, it is anticipated that the Ten Year Cycling Network Plan could be fully delivered through this funding scenario.

Scenario 4 - $20 Million Annually

This scenario would provide the resources necessary to complete the design and delivery of all of the proposed network projects, and the initiation of all of the Major Corridor Studies within the 10 year horizon. The increase in budgetary resources identified in this scenario has been evaluated to understand how this funding level may be applied to accelerate the design and construction program. The outcome of this investigation suggests that this budget scenario may allow for the compression of the project delivery period to 8-9 years, instead of 10 years.

Scenario 5 - $25 Million Annually

This scenario would provide the resources necessary to complete the design and delivery of all of the proposed network projects, and the initiation of all of the Major Corridor Studies within the 10 year horizon. The increase in budgetary resources identified in this scenario has been evaluated to understand how this funding level may be applied to accelerate the design and construction program. The outcome of this investigation suggests that this budget scenario may allow for the compression of the project delivery period to 6-7 years, instead of 10 years.

All of the above scenarios could be further enhanced through funding support from other orders of government. Transportation Services staff are actively reviewing opportunities for cycling infrastructure funding from the Provincial and Federal governments.

Bicycle Parking Strategy

Demand for bicycle parking remains high and there is an interest in increasing supply. In 2016, a Bicycle Parking Strategy will be initiated to address the need to increase supply of bicycle parking as well as work with partner agencies to better target the City's current and future investments in bicycle parking. Each of the capital budget scenarios proposed within this report includes $1 million annually to fund expansion of various bicycle parking initiatives, with an implementation plan to be addressed within the upcoming Bicycle Parking Strategy.

Monitoring and Evaluation

A measurement of the linear distance of cycling facilities installed each year may be used as the starting point to gauge the growth of the cycling network. Since 2001, an approximate average of 13 centreline kilometers (representing 26 directional kilometers) of dedicated cycling routes have been installed each year. It is anticipated that the rate of project delivery can be increased as a greater number of Major Capital Infrastructure Coordination opportunities are realized, however an accelerated rate of project delivery is contingent upon the resources allocated to fund the program. Appendix 11 outlines the project delivery by facility type which may be targeted for each funding scenario.

The 2001 Bike Plan identified the purpose of installing a cycling network in the City as having two main goals; to increase the number of trips being made by bicycle, as a percentage of total trips, and to reduce the number of bicycle collisions and injuries. The policy direction of these goals remains true today.

Network outcomes may therefore be evaluated by monitoring and reviewing mode share tracking and collision data. In addition to the rate of cycling infrastructure project delivery, mode share and collision data will be collected on an ongoing basis, for inclusion a Five Year Cycling Network Plan Update Report for 2021-2025.

Finally, as part of the Ten Year Cycling Network Plan process, several projects were identified as related studies and future opportunities. These projects have been identified in Appendix 13 for future consideration.

CONTACT

Ashley Curtis
Director
Transportation Infrastructure Management
Transportation Services Division
Tel: 416-392-5348
E-mail: amcurtis@toronto.ca

Jacquelyn Hayward Gulati
Manager, Cycling
Infrastructure and Programs
Transportation Services Division
Tel: 416-392-9065
E-mail: jgulati@toronto.ca

SIGNATURE

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Stephen M. Buckley
General Manager
Transportation Services Division

ATTACHMENTS

Appendix 1 – Cycling Network Plan: Toronto East York District
Appendix 2 – Cycling Network Plan: North York District
Appendix 3 – Cycling Network Plan: Etobicoke York District
Appendix 4 – Cycling Network Plan: Scarborough District
Appendix 5 – Summary: Five Annual Funding Scenarios to Connect, Grow and Renew the Cycling Network
Appendix 6 – Scenario 1: $8 Million / Year (Base Case)
Appendix 7 – Scenario 2: $12 Million / Year
Appendix 8 – Scenario 3: $16 Million / Year (Staff Recommended)
Appendix 9 – Scenario 4: $20 Million / Year

Appendix 10 – Scenario 5: $25 Million / Year
Appendix 11 –Summary: Cycling Network Facility Type
Appendix 12 – Summary: Proposed Barrier Crossings
Appendix 13 – Beyond the Ten Year Cycling Network Plan: Map of Related Studies and Future Opportunities