

Date: 2021-03-03

Subject: **Active Transportation Master Plan**

Secondary Title: Implementation of Active Transportation Master Plan – 2020/2021 Annual Report (All Wards) HF.x

Contact: Nelson Cadete, Project Manager, Active Transportation, Planning, Building and Economic Development Department

Report Number: Planning, Building and Economic Development-2021-070

Recommendations:

THAT the report from Nelson Cadete, Project Manager, Active Transportation, Transportation Planning, dated March 3, 2021, to the Committee of Council meeting of March 31, 2021, re: **Implementation of Active Transportation Master Plan – 2020/2021 Annual Report (All Wards) HF.x** be received.

Overview:

- **This is the inaugural annual report of Active Transportation Master Plan (ATMP) summarizing the scope of active transportation elements implemented in the ATMP’s first year, and outlining the proposed program for 2021.**
- **The intent of the annual report is to measure the successes of the ATMP and provide an opportunity to advise Council and the community of changes coming to City road and trail/path networks prior to the beginning of the construction season.**
- **In 2020, the City implemented:**
 - **19.7 km of linear cycling infrastructure (bike lanes, urban shoulders, multi-use paths and recreational trails/paths);**
 - **enhancements (curb depressions, etc.) to four school crossings;**
 - **curb depressions at 17 locations;**
 - **two new pedestrian crossings; and,**
 - **three new bicycle- and pedestrian-friendly traffic control signals.**
- **The proposed 2021 ATMP Implementation Program, includes:**

- a 2021 budget allocation of close to \$5M;
 - total of 29.3 km of linear cycling infrastructure (bike lanes, urban shoulders, multi-use paths and recreational trails/paths);
 - enhancements (curb depressions, etc.) to one school crossing;
 - curb depressions at 25 locations;
 - 41 new pedestrian crossings;
 - three new traffic control signals; and,
 - bicycle friendly signalized bike crossings at two intersections.
- To complement the proposed infrastructure, in 2021, staff will be working on the following programs, policy and design standards:
 - a standard for the uniform and consistent use of green paint at conflict points along cycling facilities throughout the City;
 - a standard for bike racks;
 - a ‘streets for people’ education campaign;
 - a communication strategy relating to parking in designated bike lanes; and,
 - with Brampton Cycling Advisory Committee, assess the winter maintenance best practices and service levels thresholds within the ATMP to determine the impact to operating budgets, equipment needs and resources.

BACKGROUND:

The Active Transportation Master Plan (ATMP) provides the implementation framework for network plans, policies and programs that support the 2040 Vision of “*a mosaic of safe, integrated transportation choices and new modes, contributing to civic sustainability, and emphasizing walking, cycling and transit.*” The ATMP states that “through developing an integrated, attractive, and accessible system of sidewalks, cycling facilities and trails, Brampton will be a livable city where all members of the community can safely and conveniently access places, goods and services and connect to transit using active modes of transportation.”

The ATMP recommends a comprehensive future cycling network that incorporates a variety of facility types such as signed routes, bike lanes, buffered bike lanes, protected bike lanes, cycle tracks and multi-use paths (located within road allowance) and recreational trails (located within parks and valley lands).

The network elements of the ATMP implementation strategy are delivered in partnership between Planning, Building & Economic Development, Public Works & Engineering and

Community Services Departments, as a part of capital improvement projects, new development applications and maintenance programs. Since many of these projects have significant design timelines before actual construction can begin, decisions on which elements of the ATMP are constructed are determined well ahead of implementation. Careful monitoring of design progress and being mindful of changes to active transportation strategies help to ensure the scope of work is finalized prior to implementation (and avoiding costly change orders once projects have been tendered or are in construction).

This report is the ATMP's first annual report to be delivered in the first quarter of each year, summarizing the scope of active transportation elements implemented in the ATMP's first year (2020), and outlining the proposed program for 2021. The intent is to measure the successes of the ATMP and provide an opportunity to advise Council and the community of changes coming to City roads prior to the beginning of construction.

CURRENT SITUATION:

Consistent with the ATMP, this annual report has been organized into the following four strategic themes:

1. Connecting the network
2. Designing for safety and comfort
3. Providing year-round mobility
4. Developing a walking and cycling culture

1. Connecting the network

Enhancing and connecting the active transportation network in order to support an increase in walking and cycling is a critical focus for the Active Transportation Master Plan.

2020 Program

The 2020 Active Transportation Implementation program included:

- 19.7 km of linear cycling infrastructure (bike lanes, urban shoulders, multi-use paths and recreational trails/paths);
- Four enhanced school-crossing locations (curb depressions, etc.);
- New curb depressions at 17 locations;
- Two new pedestrian cross-overs; and,
- Three new traffic control signals (including bicycle detection and bicycle crossings – “crossrides” – where appropriate).

Appendix A: 2020 AT Implementation Map depicts the AT infrastructure that was included within the 2020 ATMP Implementation Program.

Appendix B: New Cycling Facilities - 2020 provides a detailed summary of the following bike lanes, multi-use paths, recreational trails/paths and urban shoulders included within the 2020 ATMP Implementation Program. Due to delays in construction, some of the projects listed below (marked with an asterisk *) have been deferred to 2021.

- Vodden Street – Ken Whillans Drive to Howden Boulevard (Ward 1)
- Howden Boulevard – Vodden Street to Central Park Drive (Ward 1,7)
- McLaughlin Road – Wanless Drive to Mayfield Road (Ward 2,6)
- North Park Drive –Bramalea Road to Williams Parkway (Ward 7)
- Central Park Drive – Queen Street to Clark Boulevard (Ward 7)
- Main Street S – Wellington Street to the Etobicoke Creek (Ward 3)
- Conestoga Road – Kennedy Road to Ruth Avenue (Ward 2)
- Centre Street - Williams Parkway to Kennedy Road (Ward 1)
- Brisdale Drive – Fairhill Avenue to Sandalwood Parkway (Ward 6)
- Maitland Street – North Park Drive to MacKay Street (Ward 7) *
- Nelson Street – Haggert St to McMurchy Avenue (Ward 1) *
- Haggert Avenue – Queen Street West to Railroad Street (Ward 1) *
- Railroad Street – Haggert Avenue to Railroad Street (Ward 1) *
- Biscayne Crescent – First Gulf Boulevard - N&S Intersection (Ward 3) *
- Meadowland Gate – Nanwood Drive to Eldomar Avenue (Ward 3) *
- Harper Road – Bartley Bull Parkway and Cornwall Road (Ward 3) *
- Guru Nanak Street – Great Lake Drive and Dixie Road (Ward 9)
- Sky Harbour Drive – Financial Drive and Olivia Marie Road (Ward 4)
- Queen Street East – Glenvale Drive to Don Doan Recreational Trail (Ward 8)
- Dawson Valley Park Path (Ward 4)
- Heatherglen – Allegro Park Path (Ward 4)
- Davinfield Valley Park Path (Ward 8)
- Mount Pleasant Block 51-2 Park Path (Ward 6)

East - West Cycling Corridor (Vodden Street Bike Lanes)

The detailed design for a project to implement protected bike lanes along the following 7km corridor is nearing completion:

- Vodden Street, extending from Isabella Street to Howden Boulevard;
- Howden Boulevard, from Williams Parkway to Central Park Drive; and
- Hanover Road, between Howden Boulevard and Central Park Drive.

In 2020, Council directed staff to fast-track the implementation of temporary bike lanes during the Covid-19 pandemic to provide an alternative cycling option to overcrowded recreational trails, and an alternate way for people to access essential amenities. The initial roll out involved the use of construction barrels to delineate the temporary lanes. Given the continuation of the pandemic situation and continuing refinement of the ultimate design, the construction barrels were replaced with a more “permanent” measure to continue the interim condition (in advance of an ultimate design being finalized). The design and tender process for the East-West Cycling Corridor permanent design will take a few more months to complete. Painting these lanes in the interim moves us closer to the final design while saving costs, as the construction barrels were leased on a monthly basis.

Appendix C: ‘Fix-it’ Enhancements - 2020 summarizes the locations where upgrades/enhancements (curb cuts, crossings, etc.) were implemented to ensure a uniform level of quality across the cycling and trails network.

2021 Program

The approved 2021 Capital Budget includes approximately \$4.9M for Active Transportation infrastructure improvements. A breakdown of the \$4.9M budget allocation is provided in Table 1:

Table 1: 2021 AT Implementation Program Budget

Dept./Div.	Project	2021	2022	2023
PWE/Road Maintenance, Ops. & Fleet	Active Transportation	\$1M	\$1M	\$1M
	Controlled Pedestrian Crossover	\$100K	\$100K	\$100K
	Traffic Calming	\$29K	\$87K	-
	Traffic Signal Modernization	\$320K	\$240K	\$240K
	New Traffic Signalization	\$1M	\$750K	\$750K
PWE/Capital Works	Pedestrian Bridge Repairs	\$1.265M	\$1.3M	\$1.3M
	Goreway Drive Widening (Humberwest to north of Yorkland)	-	\$250K	-
	Intermodal Drive Widening	-	-	\$150K
	Road Resurfacing	\$200K	\$200K	\$200K
	Sidewalks	\$1.0M	\$600K	\$600K
	Torbram Road Widening (Queen to Steeles)	-	-	\$1.2M
	Williams Parkway (Kennedy to North Park)	-	\$2M	-

PB&E/Transp Planning	Data Analytics – Bike/Pedestrian Counters	\$25K	\$25K	\$25K
TOTAL		\$4.9M	\$6.6M	\$5.6M

The ATMP “Fix-it” Program is an implementation tactic that focuses on enhancing the existing network by completing critical gaps with proper pedestrian and/or cycling crossings. *Appendix D: 2021 “Fix-it” Locations* summarizes a list of 37 locations where recreational trail or major park paths intersect with existing roadways and proper crossings will be implemented in 2021 (pedestrian crossings, signalized crossings or uncontrolled crossings).

One of the key implementation strategies outlined in the Active Transportation Master Plan (ATMP) is to incorporate cycling and walking infrastructure into planned construction opportunities (i.e., capital road projects, road resurfacing program).

Appendix E: 2021 Planned Linear Facilities – Construction Opportunities provides a detailed summary of the bike lanes, urban shoulders and shared roadways to be implemented through the 2021 annual road resurfacing program, and other maintenance and/or capital construction projects. The roads where these facilities are being evaluated is as follows:

- McMurchy Avenue – Railroad Street to Queen Street (Ward 1)
- Centre Street – Clarence Street to Haslemere Avenue (Ward 3)
- Mill Street – Charolais Boulevard to Edwin Drive (Ward 3)
- Mill Street – Harold Street to Queen Street (Ward 3)
- Parkend Avenue – McMurchy Avenue to End of the road (Ward 3)
- Harold Street – Main Street to 340 m West of McMurchy Avenue (Ward 3)
- Hilldale Crescent – Central Park Drive to Central Park Drive (Ward 7)
- Black Forest Drive – Bramalea Road to Sprucelands Avenue (Ward 9)
- Clarence Street – Rutherford Road to Kennedy Road (Ward 3)
- Bramalea Road – Steeles Avenue to Avondale Boulevard (Ward 7)

Implementation of active transportation infrastructure through planned construction projects is the most cost-effective approach to build the active transportation network. It is important to note the type of work and scope of planned projects will dictate the type of cycling facility that can be implemented. For example, major road reconstruction projects allow for cycling infrastructure to be incorporated into a roadway design whereas road resurfacing is a maintenance activity intended to extend the life cycle of the road without major changes to road geometrics. Therefore, potential cycling facility types are limited to what can be accommodated within the scope of a road resurfacing program (replacement of asphalt road surface, roadway painting and minor repairs/replacement of curbs/sidewalks).

City staff presented the draft 2021 Road Resurfacing Program to the Brampton Cycling Advisory Committee for its input in December 2020, and again in January 2021, once the program was finalized. Based on input from the Advisory Committee and assessment by staff, cycling infrastructure as part of the 2021 Road Resurfacing Program is being addressed as follows:

- Existing traffic conditions (road classification/vehicle volume/speed/truck traffic) along Clarence Street and Bramalea Road suggest that the appropriate facility type would require changes to the roadway that extend beyond the scope of the road resurfacing projects.
- Mill Street, Parkend Avenue and Centre Street (south of Clarence Street) are candidates for cycling infrastructure; however they are too narrow (8.0 m pavement width) to accommodate a bike lane or urban shoulder. City staff will be introducing the use of signage and “sharrows” or “super-sharrows” (see Figure 1) along these roadways to identify them as cycling routes and provide wayfinding along their respective corridors.
- Staff will be communicating to residents along McMurchy Avenue, Harold Street, Hilldale Crescent, and Black Forest Drive that bike lanes are being proposed as a part of the road resurfacing work.



Figure 1: Super-sharrow

In addition to the linear infrastructure identified above, the 2021 Road Resurfacing and other construction opportunities will include an additional 25 curb depressions at park paths and walkways, one enhanced school crossing, two signalized crosswalks upgraded to accommodate both pedestrians and bikes (“crossride”), a new pedestrian crossing, three new traffic control signals, and a bridge deck widening within the scope of a bridge rehabilitation project. These improvements are summarized in *Appendix F: 2021 ‘Fix-it’ Locations – Construction Opportunities*.

The 2021 Capital Budget introduced an “Active Transportation Projects” line item that identifies a \$1M per year investment over the next three years to construct a city-wide connected cycling and pedestrian network (per the Active Transportation Master Plan) to enable safer, more convenient travel by non-motorized modes. In addition to the Planned Linear Facilities identified above (and detailed in Appendix E) as part of the road resurfacing program, the following locations are also planned to be upgraded in 2021 with a cycling facility (*Appendix G: 2021 Planned Linear Facilities – ATMP ‘In-fill’ Program* provides a more detailed summary):

- Charolais Boulevard – James Potter Road to Main Street South (Wards 3, 4)

- Central Park Drive – Bramalea Road to Torbram Road (Ward 8)
- Westcreek Boulevard – Steelwell Road to south limit of the road (Ward 3)
- Avondale Boulevard (the Loop) – Bramalea Road to Birchbank Road (Ward 7)
- Avondale Boulevard (the Loop) – Birchbank Road to Balmoral Drive (Ward 7)
- Dearbourne Boulevard – Bramalea Road to Balmoral Drive (Ward 7)
- Balmoral Drive – Bramalea Road to Torbram Road (Ward 7)
- Eastbourne Drive – Balmoral Drive to Clark Boulevard (Ward 7)
- North Park Drive – Bramalea Road to Torbram Road (Wards 7,8)
- Glenvale Boulevard – Clark Boulevard to Queen Street East (Ward 7)
- Finchgate Boulevard – Queen Street East to Central Park Drive (Ward 7)
- Claireville Recreational Trail North – Valleycreek Drive to south of Queen Street (Ward 8)
- Bartley Bull Parkway – Etobicoke Creek Recreational Trail to Orchard Drive (Ward3)
- Orchard Drive/Hartford Trail – Bartley Bull Parkway to Etobicoke Creek Recreational Trail (Ward 3)
- Cloverdale Drive – Chinguacousy Recreational Trail to Central Park Drive (Ward 7)
- Vodden Street – Isabella Street to Williams Parkway (Ward 1)
- Royal Orchard Drive – Williams Parkway to Bovaird Drive (Ward1)
- Centre Street – Williams Parkway to Queen Street (Ward 1)

These roads were identified as priorities given they are either links within the City's Priority Cycling Network or located within the Bramalea Sustainable Neighbourhood Action Plan (SNAP) which was approved by Council earlier this year.

To prioritize and direct the development of the City's cycling network, a core network of higher order cycling facilities was identified in the Active Transportation Master Plan as the City's Priority Cycling Network (map of the Priority Cycling Network is attached as Appendix H). The Priority Cycling Network comprises a 40 km loop along a north-south axis (encompassing the Etobicoke Creek, Esker Lake, and Chinguacousy recreational trails) and 42 km of east-west routes connecting the loop to the outer edges of the City in either direction. To date, 53 km of the 82 km that make up the priority network have been completed. An additional 10.8 km of the priority network will be added in 2021, tracking towards full completion within the planned 5-year time frame.

Earlier this year City Council endorsed the Bramalea Sustainable Neighbourhood Action Plan. The TRCA-led SNAP program is a collaborative, neighbourhood-based approach for advancing urban renewal and climate action in older urban areas, such as Bramalea. As a secondary priority for the Active Transportation Project line item in the 2021

Budget, an additional 5.8 km of bike lanes will be introduced in the vicinity of the SNAP area.

The locations identified above were also presented and discussed at the Brampton Cycling Advisory Committee meetings in December 2020 and February 2021.

Appendix I: 2021 AT Implementation Map depicts the active transportation infrastructure that is proposed within the scope of the 2021 Active Transportation Master Plan Implementation Program.

2. Designing for safety and comfort

High quality pedestrian and cycling infrastructure creates a safe and inviting environment which is critical to attracting anyone wishing to use active modes for transportation. In 2020, the City worked towards creating three separate design standards prescribing appropriate measures to apply at different pedestrian and/or bicycle crossing scenarios where trails/path/walkways meet roadways (e.g., signs, pavement markings, etc.). These standards will be applied to the pedestrian crossings and curb depressions identified in this report, ensuring these critical junction points are safe and comfortable.

In 2021, staff will undertake to develop a standard outlining a uniform and consistent use of green paint along cycling facilities throughout the City. This standard will follow the provincial guidance in the pending *Ontario Traffic Manual Book 18: Bicycle Facilities* update, expected to be approved this year. Staff will also finalize a standard bicycle rack, to ensure future bike parking is comfortable, functional, convenient and secure. Bike parking is an essential component of a comprehensive active transportation network, fostering greater use of a cycling network for more utilitarian purposes as well as recreational ones.

3. Providing year-round mobility

A good maintenance program can help to encourage walking and cycling in all seasons, reduce the risk of injuries and extend the service life of infrastructure. At a recent Brampton Cycling Advisory Committee meeting, the committee offered to work with City staff on recommendations concerning the winter maintenance of active transportation infrastructure, and to outline operations costs, for implementation next winter season. In 2021, with input from the Brampton Cycling Advisory Committee, staff will assess maintenance best practices and service levels thresholds recommended in the Active Transportation Master Plan, to determine implications for operating budgets, equipment needs, and resources.

4. Developing a walking and cycling culture

Building a safe and comfortable active transportation network is a key prerequisite to making walking and biking a viable transportation option; however, it must also be complemented by supportive policies and programs to foster a walking and cycling culture. In 2020 staff developed the following two education/information campaigns to support and promote existing and proposed infrastructure, and in so doing, to begin to foster an active transportation culture:

- Given the notable increase in people on Brampton's recreational trails and pathways during the COVID-19 pandemic, staff prepared a communication strategy addressing trail etiquette, to raise awareness and provide guidance on the importance of safe and courteous trail usage.
- With over 10 km of new dedicated bike lanes implemented in 2020, City staff rolled out a communication strategy focused on educating drivers and cyclists on the proper use of the new infrastructure. The campaign included guidance on navigating through intersections, transit stops and the new left-turn queue boxes.

Communication tactics to deliver these campaigns included a mail-out with the 2020 Tax Bill, social media posts, and partnering with Bike Brampton (community cycling advocacy) () who distributed trail etiquette messaging and collateral (bike maps, bells) at several pop-up repair clinics they hosted at various locations along the City's active transportation network throughout the year.

This year, staff will focus on a "Streets for People" education campaign. In any city, the street network is pervasive, and the character of streets sets the character of the whole city. Streets for People is about providing a safe and comfortable street experience regardless of how someone chooses to travel on it. It is where a place on the street is identified not just mobility but a wide array of activities. "Streets for People" should include a people-friendly dimension including safety, trees, local culture, pleasant ambiance, multiple uses and environmental features. City Transportation Planning staff are working with Public Works & Engineering and Corporate Communications staff to develop a communication strategy around streets for people to be applied to the projects outlined within this report.

A second focus area in 2021 for developing an active transportation culture relates to parking and/or stopping in bike lanes. As on-road dedicated bicycle lanes are added to the City's network, it is essential that Brampton's residents be engaged and made aware of the laws and regulations governing their usage.

CORPORATE IMPLICATIONS:

Financial Implications:

Funding for the projects outlined within this report have been approved through the annual operating and capital budget approval process. Funding for future active transportation initiatives will continue to be considered through the annual budget process and included in the capital budget request put forward by Public Works & Engineering and Community Services.

TERM OF COUNCIL PRIORITIES:

This report directly supports the 'Active Transportation Action Plan' Term of Council priority. The existing infrastructure and planned projects outlined within this report contribute towards an ultimate broad and well-connected active transportation network making travel by bike and on foot a safe and desirable option for school, work, recreation and other trips while supporting a cycling and walking culture.

CONCLUSION:

The City's Active Transportation Master Plan lays out a defined strategy to implement a comprehensive citywide active network. The network elements of the ATMP implementation strategy are delivered in partnership between Planning, Building & Economic Development, Public Works & Engineering and Community Services Departments, as a part of capital road improvement projects and maintenance programs.

Building on the success of last year, in 2021 City staff are planning the implementation of:

- 29.3 km of linear cycling infrastructure (bike lanes, urban shoulders, multi-use paths and recreational trails/paths);
- enhancements to one school crossing;
- curb depressions at 25 locations;
- 38 new pedestrian crossings;
- three new traffic control signals; and,
- bicycle-friendly signalized bike crossings at two intersections.

Further to the planned physical infrastructure, staff will be developing complementary design standards, programming and policy that will foster a walking and cycling culture in the City.

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Attachments:

- Appendix A: **2020 AT Implementation Map**
- Appendix B: **New Linear Cycling Facilities - 2020**
- Appendix C: **'Fix-it' Enhancements – 2020**
- Appendix D: **2021 'Fix-it' Locations**
- Appendix E: **2021 Planned Linear Facilities – Construction Opportunities**
- Appendix F: **2021 'Fix-it' Locations – Construction Opportunities**
- Appendix G: **2021 Planned Linear Facilities – ATMP 'In-fill' Program**
- Appendix H: **2021 AT Implementation Map**

