

DECISION/DIRECTION NOTE

Title: Bike Lane Pavement Markings
Date Prepared: June 22, 2022
Report To: Committee of the Whole
Councillor and Role: Councillor Maggie Burton, Transportation & Regulatory Services
Ward: N/A

Decision/Direction Required:

Direction is required to maintain bike lane pavement markings for recommended routes.

Discussion – Background and Current Status:

2009 Cycling Master Plan

Following the adoption of the 2009 Cycling Master Plan, the city installed signage and pavement markings to designate 32 kms of shared streets and painted bike lanes.

In the decade that followed, implementation of the 2009 Cycling Master Plan was discontinued. Some bike lanes were removed. Following conversations with Council, the bike lane pavement markings were not maintained and in some areas they are now unrecognizable.

2019 Bike St. John's Master Plan

Council approved the Bike Master Plan in 2019 and committed to its vision to create “a safe, inclusive, and convenient cycling network that is well-connected, attractive, and reflective of the City’s unique topography and climate. As part of an integrated mobility network, this is supported by policies and programs that promote a cycling friendly culture.”

The 2019 Bike Master Plan outlines a citywide bike network and implementation plan, including the following action item.

Primary Action: Remove signs and bicycle pavement markings on 2009 Cycling Master Plan routes that are no longer incorporated in the 2019 bike network. (Section 7.3.2 Old Route Retirement)

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The plan outlines which bike routes do not form part of the new network and as such, can be reverted to their previous configuration. These routes have been removed.

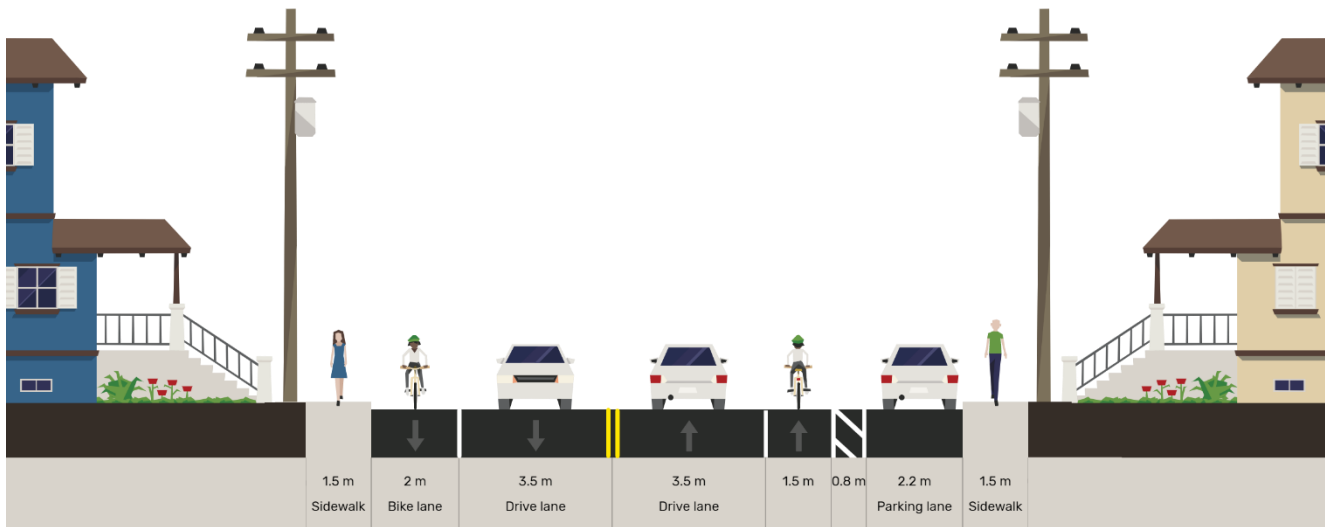
The 'signed-only' routes and 'sharrows' have also been removed. These did not adequately improve safety for people cycling along those streets.

Appendix A includes a table listing all the on-street bike routes that have been installed and removed since 2009.

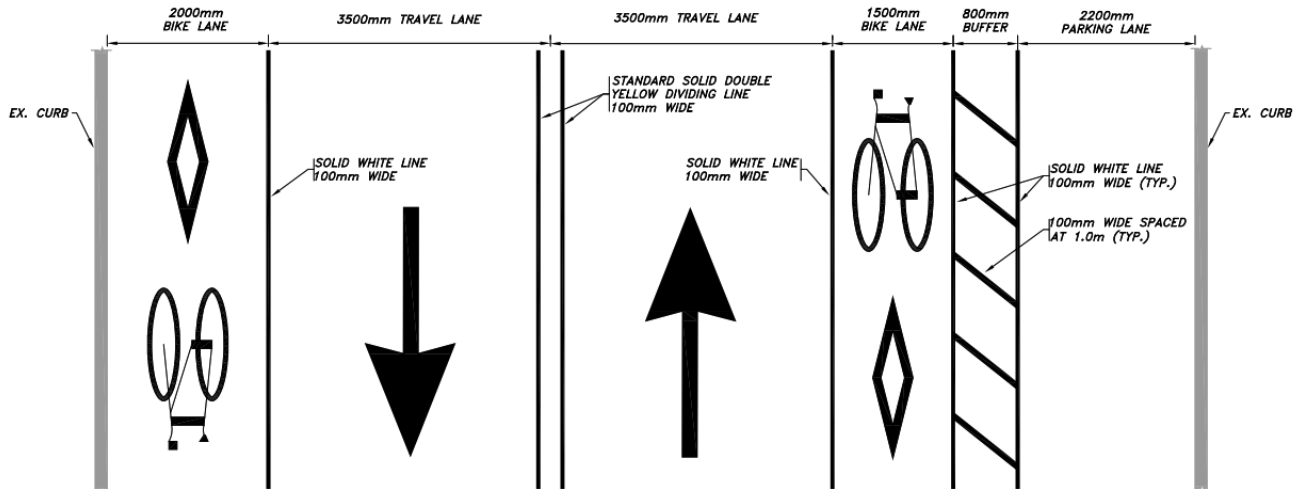
This leaves the streets that have painted bike lanes and are part of the full bike network. There are currently painted bike lanes on 6 streets that are part of the bike network. These streets are listed below.

<i>Neighbourhood</i>	<i>Street</i>	<i>Bike Network</i>
Airport Heights	Airport Heights Drive (Parkers Pond Road to Elderberry Place)	Full Network
	Viscount Street (Airport Heights Drive to SUP at Portugal Cove Rd)	Full Network
Cowan Heights	Cowan Avenue (Frecker Drive to Topsail Road)	Full Network
	Canada Drive (Hamlyn Road to Cowan Avenue)	Backbone Network
Mundy Pond	Munday Pond Road (Columbus Drive to Cashin Avenue/Campbell Ave)	Backbone Network
	Cashin Avenue Ext. (Mundy Pond Road to Blackmarsh Road)	Full Network

In each of these areas, there are painted unidirectional bike lanes on each side of the street, usually with a hatched buffer and parking allowed on one side. The bike lanes include painted bike symbols with reserved bike lane diamonds. The intersection pavement markings are very simple. The following figure shows a typical cross-section for Airport Heights Drive.



The following pavement markings are required for the cross-section illustrated above.



Painted Bike Lanes and Safety

From a safety perspective, the following evaluation of painted bike lanes is relevant.

The literature indicates that painted bicycle lanes reduce bicycle injury and collision frequency when compared to roadways without bicycle facilities. This result is supported by research investigating the impact of vehicle encroachment which indicates that painted bicycle lanes increase the distance between overtaking vehicles and bicyclists. At intersections, collision rate decreases with the presence of painted bicycle lanes

approaching the intersection. The literature indicates that confident bicyclists perceive painted bicycle lanes to be comfortable when compared to no facility. However, noncyclists do not perceive painted bicycle lanes to be comfortable. (TAC Report: Safety Performance of Bike Infrastructure in Canada, 2020)

To increase bike ridership and meet the city's mode share targets it is important to build bike routes that are comfortable and attractive to new riders. Although painted bike lanes improve safety as noted above, they are not generally perceived as attractive for new or nervous riders. They are a good type of bike route depending on context.

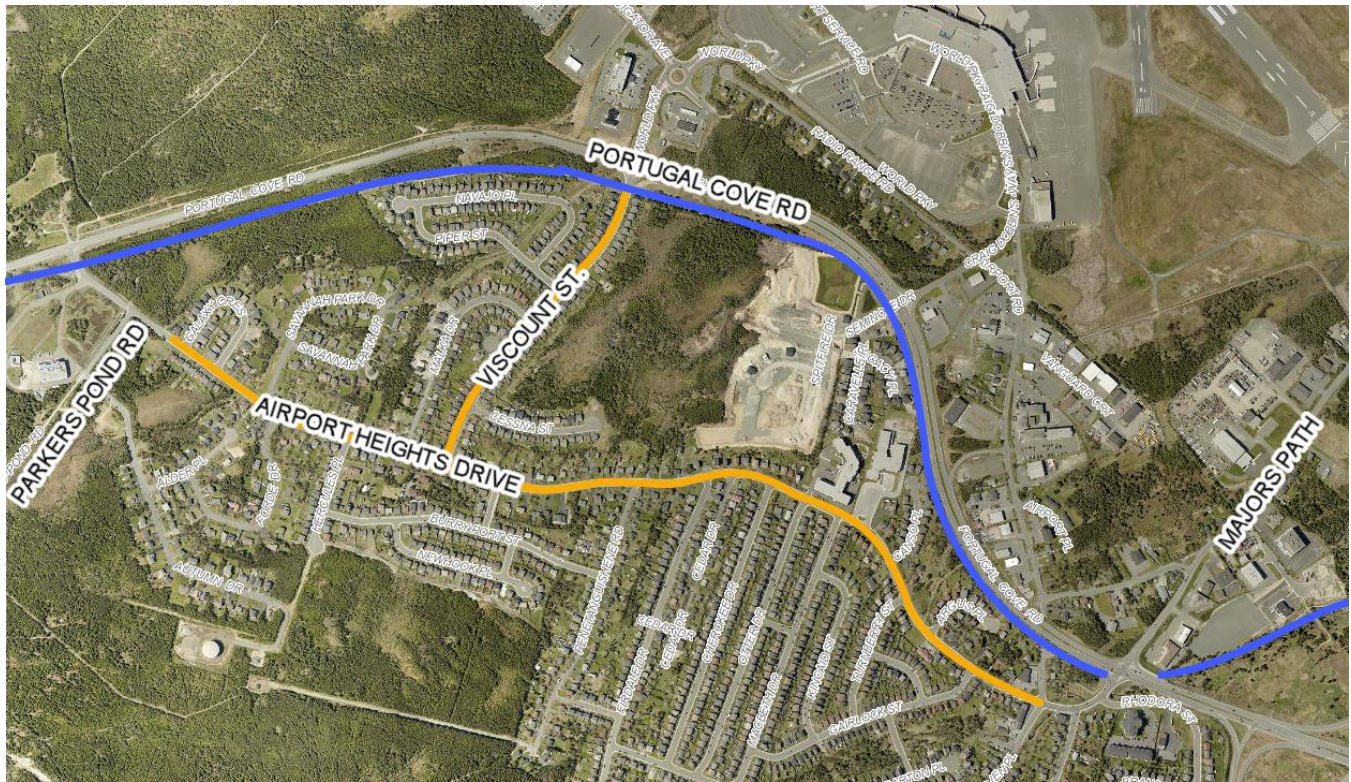
The white edge line that is created by the bike lane is a critical piece of pavement marking for safe operation of the road. Without it, drivers do not receive the appropriate guidance on lane discipline or speed cues. As such the bike lane pavement markings need to be regularly maintained.

Airport Heights Drive & Viscount Street Bike Lanes

The painted bike lanes in Airport Heights connect almost immediately to other existing sections of the bike network and are important links to maintain and grow our bicycle network. These connections are described below and shown in the following image.

The painted bike lanes on Airport Heights Drive extend from Elderberry Place to where the sidewalks end at Parkers Pond Road. They connect the shared-use path along Portugal Cove Road through Viscount Street, Argus Place and Elderberry Place. These bike lanes pass in front of Roncalli Elementary School. Curb extensions have been installed in front of the school with bike lanes built-in.

The painted bike lanes on Viscount Street connect the Airport Heights Drive bike lanes to the shared-use path along Portugal Cove Road.



ORANGE LINE – PAINTED BIKE LANES (EXISTING)

BLUE LINE – SHARED-USE PATH (EXISTING)

Recommendation:

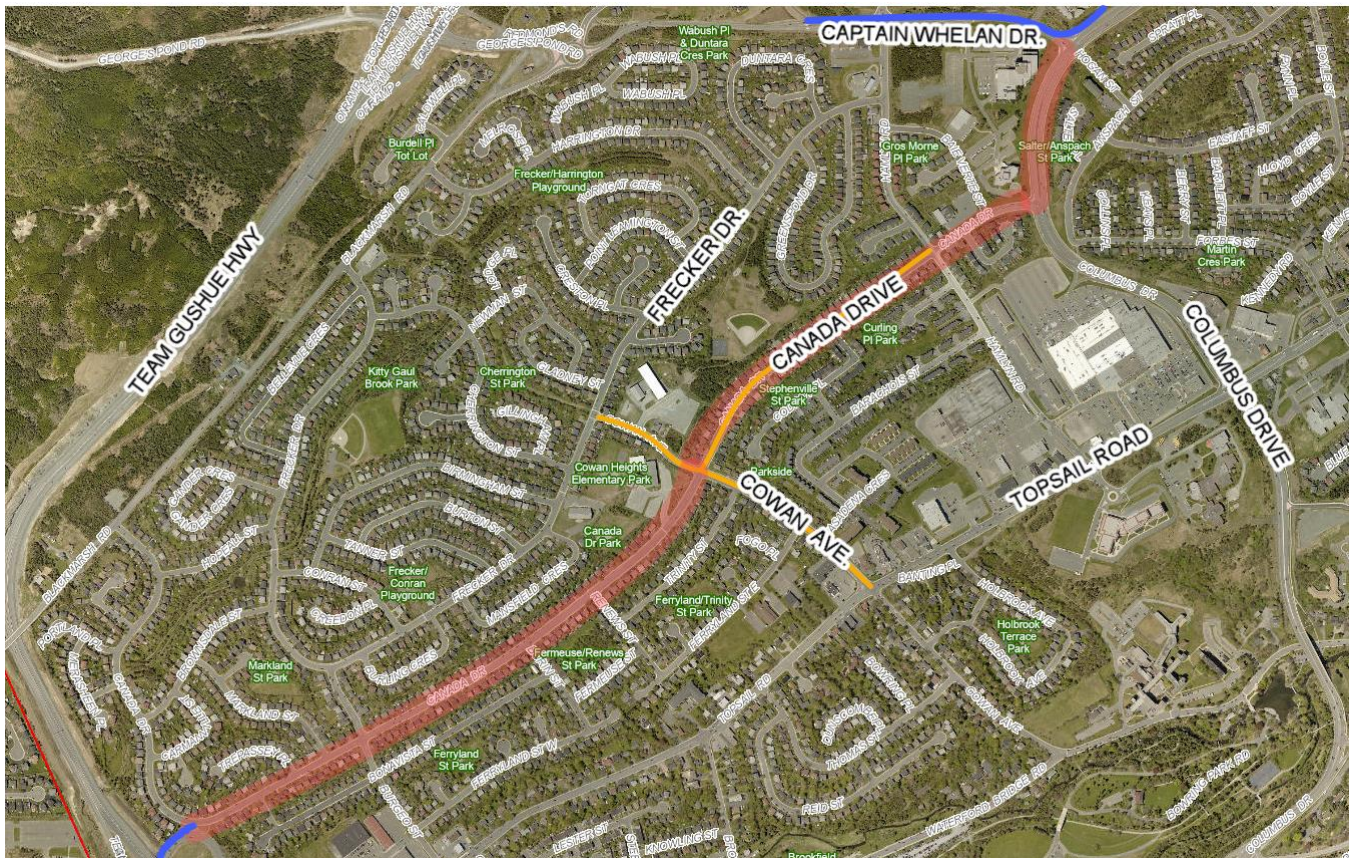
- *Maintain painted bike lanes on Airport Heights Drive*
- *Maintain painted bike lanes on Viscount*
- *Add wayfinding signage at Elderberry Place and Argus Place to improve connectivity to the Shared-Use Path along Portugal Cove Road*

Canada Drive & Cowan Avenue Bike Lanes

The painted bike lanes along Canada Drive extend from Hamlyn Road to Cowan Avenue.

Canada Drive is in the process of being redesigned with a shared-use path from Columbus Drive to approximately Civic #243 where a shared-use path will connect under Team Gushue Highway. The new design will include a shared-use path along one side of the street, establishing an improved bike route along this corridor. Construction will be phased over several years and is scheduled to start in 2023.

The painted bike lanes along Cowan Avenue extend from Topsail Road to Frecker Drive. This route is an important connection to the neighbourhood pathway network at Frecker Drive, to two elementary schools, to Canada Drive (backbone bike network) and Topsail Road (full bike network). Although there are currently no bike lanes on Topsail Road, the Cowan Avenue painted bike lanes end about 300m from Waterford Valley High which is an important destination.



RED SHADED AREA – CANADA DRIVE SHARED-USE PATH (PLANNED)

ORANGE LINE – PAINTED BIKE LANES (EXISTING)

BLUE LINE – SHARED-USE PATH (EXISTING)

Recommendation:

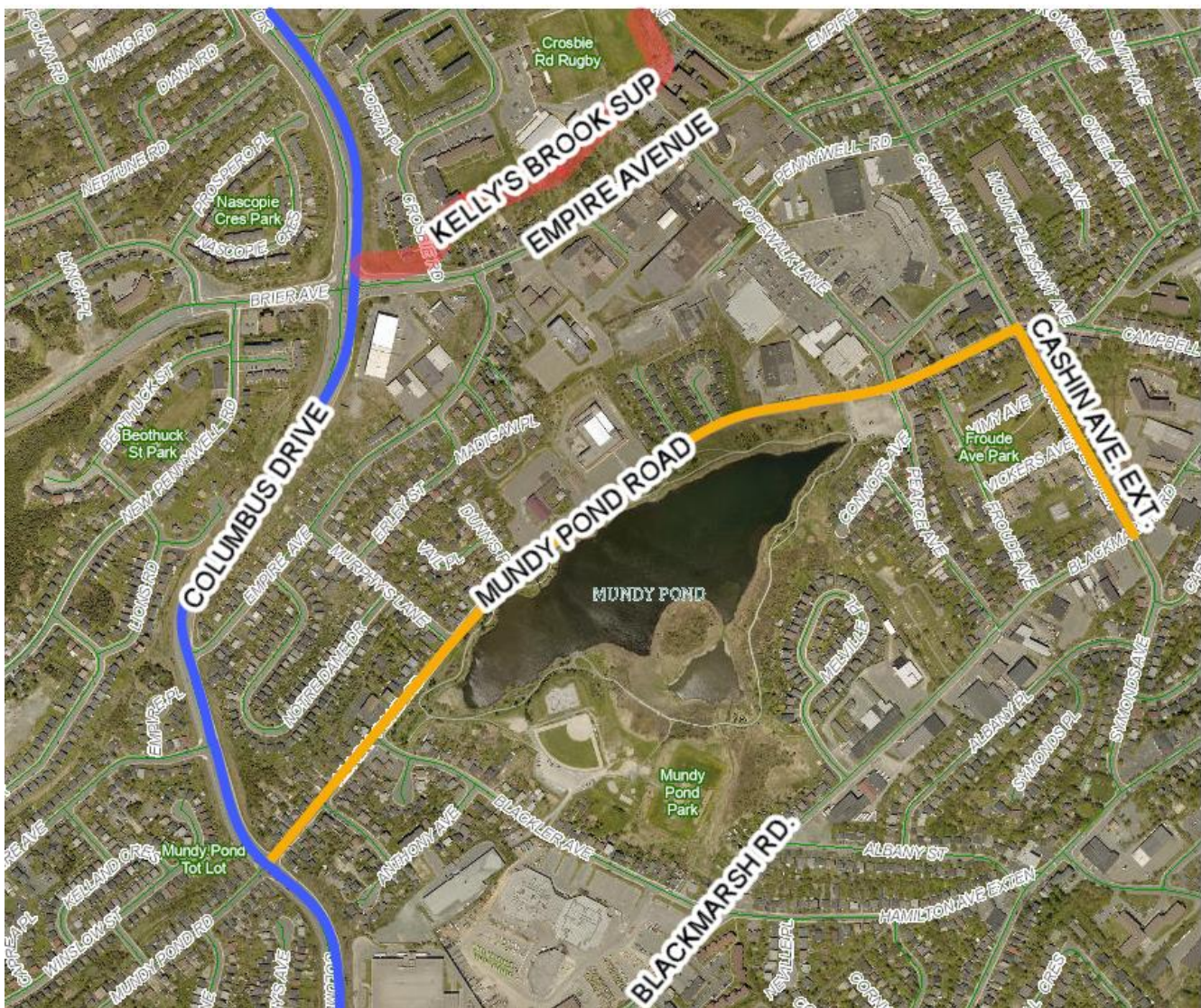
- *Remove bike lanes on Canada Drive because construction of a more comfortable active transportation facility is scheduled to start next year*
- *Maintain painted bike lanes on Cowan Avenue between Frecker Drive and Topsail Road*

Mundy Pond Road & Cashin Avenue Extension Bike Lanes

These painted bike lanes connect almost immediately to other existing sections of the bike network and are important links to maintain and grow our bicycle network. These connections are described below and shown in the following image.

The painted bike lanes on Mundy Pond Road and Campbell Avenue extend from Cashin Avenue to the shared-use path on Columbus Drive. Some key destinations connected by this bike lane include St Theresa’s Elementary School and Mundy Pond walking trail.

The painted bike lanes on Cashin Avenue Extension connect the bike lanes from Campbell Avenue to Blackmarsh Road.



RED SHADED AREA – KELLY’S BROOK SHARED-USE PATH (PLANNED)

ORANGE LINE – PAINTED BIKE LANES (EXISTING)

BLUE LINE – SHARED-USE PATH (EXISTING)

Recommendation

- *Maintain bike lanes along Mundy Pond Road*
- *Maintain bike lanes along Cashin Avenue Extension bike lanes.*

On-Street Parking

Over the years residents have started parking vehicles in the faded bike lanes.

The wintertime exemption of the parking restrictions along bike lanes was revoked with the adoption of 2019 Bike St John’s Master Plan.

In recent years parking officers have only issued tickets to vehicles parked in bike lanes where there is clear signage and only when a complaint was received. When pavement markings are maintained and clear, parking officers can enforce parking violations. The Parking Enforcement Division reviewed the streets with painted bike lanes in terms of parking supply and noted no concerns.

In 2020 and 2021 a contractor repainted the bike lane markings along Airport Heights Drive between Portugal Cove Road and Otter Drive as part of a road rehabilitation project. While 311 reported receiving no calls about the freshly painted bike lanes and Parking Enforcement do not recall any significant issues, residents did reach out to members of Council with concerns / complaints. Residents are generally aware of the bike lane in front of their house even if its faded.

Due to the changes in the bike program over the years and the enforcement approach, there may be some pushback anticipated when enforcement of painted bike lanes begins.

Key Considerations/Implications:

1. Budget/Financial Implications:

The cost to complete this work is estimated at \$80k-\$90K. This money has not been budgeted for in 2022.

2. Partners or Other Stakeholders:

n/a

3. Alignment with Strategic Directions:

A City that Moves: Improve safety for all users on a well-maintained street network.

A City that Moves: Expand and maintain a safe and accessible active transportation network.

4. Alignment with Adopted Plans:

The 2019 Bike St John's Master Plan outlines the following action.

Primary Action: Remove signs and bicycle pavement markings on 2009 Cycling Master Plan routes that are no longer incorporated in the 2019 bike network. (Section 7.3.2 Old Route Retirement)

Council has committed to adopt a sustainable mode share target of 16% to be achieved by 2030 and 22% by 2050 (Decision Note November 2020). Achieving this target is only possible if the City continues to invest more in transit, pedestrian, and bike facilities.

5. Accessibility and Inclusion:

6. Legal or Policy Implications:

Parking enforcement of painted bike lanes is covered under the *Ticketing Amendment By-law* Section 13(1), which carries a \$75 fine.

7. Privacy Implications:

n/a

8. Engagement and Communications Considerations:

Letters will be distributed to residents along affected streets to communicate the maintenance or removal of painted bike lanes.

9. Human Resource Implications:

n/a

10. Procurement Implications:

n/a

11. Information Technology Implications:

n/a

12. Other Implications:
n/a

Recommendation:

That Council approve painted bike lane pavement marking maintenance recommended in the table below and communicate with residents as follows.

- Distribute letters to residents on the affected streets explaining why the bike lanes are being repainted or removed, what it means for their parking options and garbage bin placement, and how to reach city staff with questions or concerns.
- Implement a 30-day enforcement grace period after pavement markings are completed, where Parking Services will leave notices/warnings on vehicles instead of issuing tickets.

<i>Street</i>	<i>Length (km)</i>	<i>Network</i>	<i>Line Painting</i>
Airport Heights Drive (Parkers Pond Road to Elderberry Place)	2.42	Full Network	Maintain
Viscount Street (Airport Heights Dr to Portugal Cove Rd SUP)	0.70	Full Network	Maintain
Cowan Avenue (Freckler Drive to Topsail Road)	0.68	Full Network	Maintain
Canada Drive (Hamlyn Road to Cowan Avenue)	0.68	Backbone Network	Remove
Mundy Pond Road (Columbus Dr to Cashin Avenue/Campbell Ave)	1.42	Backbone Network	Maintain
Cashin Avenue Ext. (Mundy Pond Road to Blackmarsh Road)	0.35	Full Network	Maintain

Total distance of bike lanes to be painted: 5.6kms

Prepared by: Marianne Alacoque, Transportation Systems Engineer
Approved by: Amer Afridi, Manager Transportation Engineering

Report Approval Details

Document Title:	Bike Lane Pavement Markings.docx
Attachments:	- Appendix A On-Street Bike Route Installations and Removals.pdf
Final Approval Date:	Jun 23, 2022

This report and all of its attachments were approved and signed as outlined below:

Scott Winsor - Jun 22, 2022 - 4:29 PM

No Signature - Task assigned to Jason Sinyard was completed by workflow administrator Karen Chafe

Jason Sinyard - Jun 23, 2022 - 4:18 PM