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Pedestrian Signal Operations

An overview of the City's Pedestrian Signal operation including Accessible Pedestrian Signals



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August 10, 2022

Why do we use Traffic Signals?

- ❑ Improves safety of road users by assigning right-of-way
- ❑ Provides efficient movement for all users by minimizing delay for everyone
- ❑ Improves transit operation
- ❑ Improves fire and EMS vehicles response time



Pedestrian Signal Operation

The walk light at a signalized intersections can be initiated in one of two ways.

- 1) Pedestrian actuation: walk light is activated when a person pushes the button.
- 2) Pedestrian recall: walk signal is activated automatically every cycle without pressing the push button.



Pedestrian Recall vs. Push Button Actuation

Pros of Pedestrian Recall	Cons of Pedestrian Recall
<ul style="list-style-type: none">• Improves pedestrian level of service at high pedestrian activity area.• Improves accessibility for all pedestrians	<ul style="list-style-type: none">• May increase delays to vehicles and transit• May impact fire emergency response time• May increase congestion and vehicle idling resulting in more GHG emissions• May create safety issues due to driver frustration

Recent History of Pedestrian Recall

Prior to May of 2020, pedestrian recall was used only where required based on high pedestrian volumes and at some locations in the winter if the pushbuttons are inaccessible due to snow accumulation.

May 2020 - In response to COVID-19, the city implemented pedestrian recall full time at all signalized intersections.

November 2020 - a pedestrian “core” area was identified to remain on full time pedestrian recall. Outside the “core” there are 83 signalized intersections, 30 of these switch to recall for the winter season.

Pedestrian Core Area



Accessible Pedestrian Signals (APS)

APS are an extra feature added to improve safety for people with vision loss. APS provide audible and/or vibrotactile indications of the walk signal.

Currently, the city uses two APS technologies

- Traditional push button (press-and-hold), and
- Key2Access using button/mobile app/fobs.

All APS in the city need to be activated by a pedestrian. No audible indications of the walk signal are on recall.

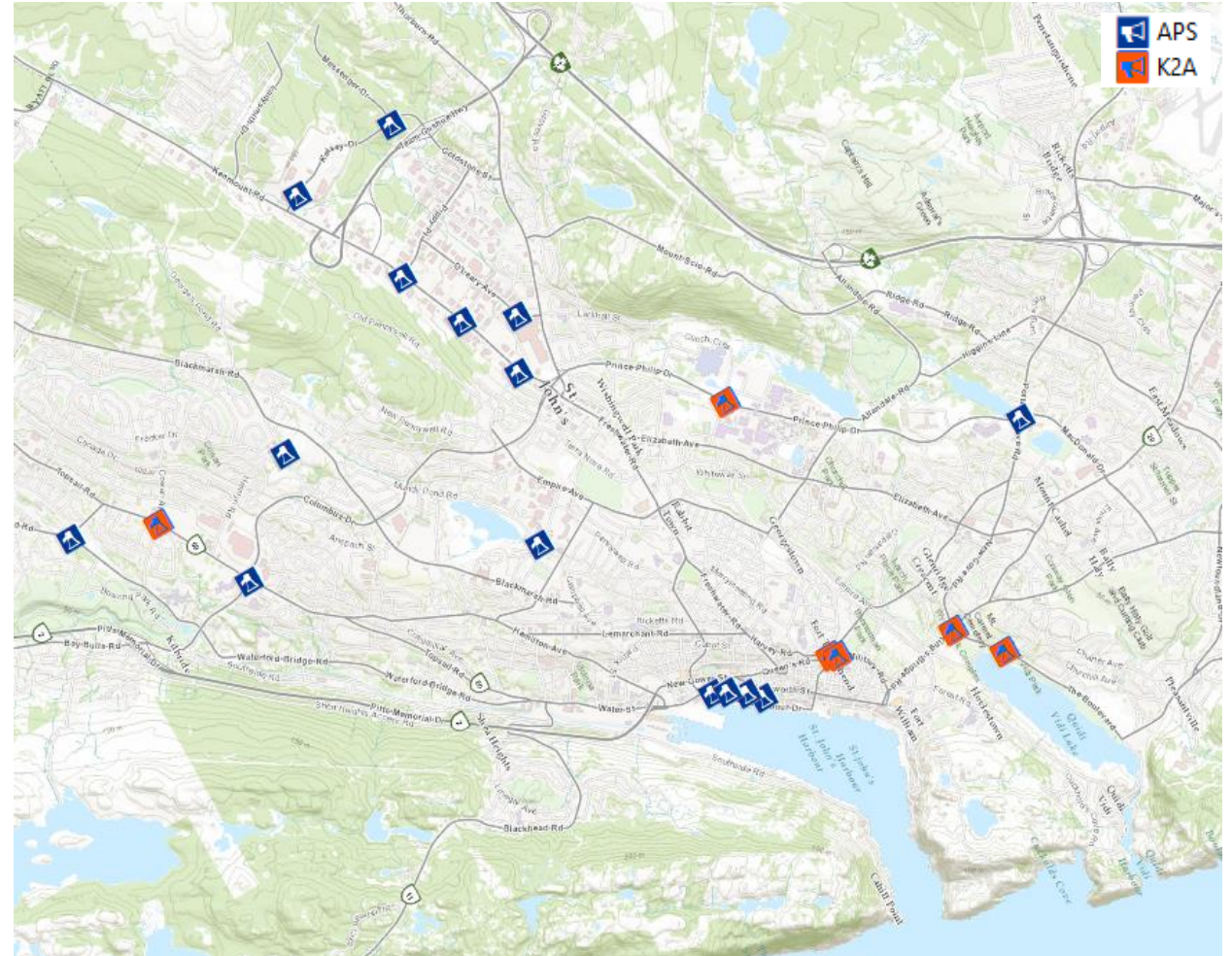


Accessible Pedestrian Signals (APS)

The city has a total of 113 signalized intersections.

21 of these include APS.

Moving forward the City is targeting 2-3 new APS installations per year, preferably more depending on the opportunities available.



APS and Pedestrian Recall: City Wide Traffic Signals

City wide	
Total signalized intersections	113
Pedestrian recall (automated) walk lights	61
Push button activated walk lights	52
Intersections with APS (audible signals not on recall)	21

APS and Pedestrian Recall: Core and outside core

	Pedestrian Core Area	Outside Pedestrian Core
Total signalized intersections	30	83
Pedestrian Recall	29	32
Signals with APS	7	14

Selection Factors for Pedestrian Recall

- Pedestrian activity
- Transit routes
- Fire response routes
- Feedback from community stakeholders/groups
- Traffic level

Where do we go from here?

Staff is considering the following approach and looking for direction from council

- Pedestrian core would remain on full time recall
- Outside the pedestrian core, pedestrian recall would be based on vehicle and pedestrian volumes, and feedback from Metrobus and other stakeholders including Focus group
- Focus group will be formed by Inclusion Advisory Committee for decisions related to pedestrian recall outside of pedestrian core area
- Seasonally, some intersections outside the pedestrian core would be switched to recall for winter with dates aligning with public works parking ban



Thank you

Questions and Discussion

