



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Transportation Operations & Maintenance Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	August 12, 2020
SUBJECT/REPORT NO:	Connected & Autonomous Vehicles Test Bed (PW19097(a)) (City Wide)
WARD(S) AFFECTED:	City Wide
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SIGNATURE:	

COUNCIL DIRECTION

N/A

INFORMATION

On November 27, 2019 Council approved Report PW19097 Connected & Autonomous Vehicles Test Bed, which authorized the General Manager of Public Works to execute agreements to formalize a partnership between the City of Hamilton and the Centre for Integrated Transportation and Mobility (CITM) to assist in their deployment of a Connected and Autonomous Vehicle Test Bed.

This report provides an update regarding the status of the Connected & Autonomous Vehicle Test Bed, including progress and changes in project scope.

Transportation Operations & Maintenance with the assistance of Legal Services, has been actively developing an agreement between the City and CITM. The agreement will include details pertaining to the establishment of a public test bed, particularly roles and responsibilities, use of City infrastructure and attributed costs. Completion of the agreement has been delayed because of COVID-19 and minor scope changes introduced by CITM.

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OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

The Connected & Autonomous Vehicles Test Bed project, which is managed and implemented by CITM, includes both private and public test areas. The private test bed is located on private roads at the McMaster Innovation Park's Cen-Met facility (175 Longwood Road South) and is fully operational.

The public test bed that is proposed to be located on the central mountain has been reduced in size, however only by one block. This change was required by CITM to facilitate proper coverage of the cellular network that their sensors will be communicating with.

The original proposed public test bed was bounded by Upper Gage Avenue, Stone Church Road, Dartnall Road and Rymal Road. It has been reduced and is now bounded by Upper Ottawa Street, Stone Church Road, Dartnall Road and Rymal Road.

The public test bed on the mountain does not have easily accessible fibre-optic infrastructure and attempting to run new fibre to any of the sensor locations would be impractical and financially prohibitive to CITM as they are responsible for all associated costs. CITM identified that providing fibre-optic connectivity to sensors would add significant research value to the project. As such, the scope has added two sensor locations in downtown Hamilton that have existing and easily accessible fibre-optic infrastructure. These locations are:

- York Boulevard Parkade (Municipal Lot 68) at 28 York Boulevard; and
- Alectra Utility pole at the intersection of Bay Street South and Hunter Street West or City of Hamilton street light pole at the intersection of Caroline Street South and Main Street West.

Final selection for the second location is dependent upon the conclusion of a review which is currently being undertaken by CITM.

Additional review, technical discovery or additional sensor installations may necessitate other locations be considered in the future. Alternate locations would be near either the mountain or downtown locations.

Maps of the public test bed, the downtown sensor locations and a typical CAV pole configuration has been attached to Report PW19097(a) as Appendix "A".

The public test bed was anticipated to be operational in Q2 of 2020, however due to COVID-19 and other logistical details, CITM has revised the operation date to Q4 of 2020.

APPENDICES AND SCHEDULES ATTACHED

Appendix "A" to Report PW19097(a) – CAV Public Deployment