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TO:	**CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON OCTOBER 7, 2013**
FROM:	**EDWARD SOLDO, P. ENG. DIRECTOR, ROADS AND TRANSPORTATION**
SUBJECT:	**SIDEWALK MAINTENANCE PROGRAM**

RECOMMENDATION

That on the recommendation of the Director, Roads and Transportation, the following report **BE RECEIVED** for information.

BACKGROUND

At the Civic Works Committee meeting on July 22nd 2013, the following recommendation was approved.

19. Sidewalk Repair Program

Recommendation: That the communication dated July 14, 2013, from Councillor M. Brown, with respect to the Sidewalk Repair Program, BE REFERRED to staff for a report back to the Civic Works Committee. (2013-t04)

A copy of the communication is included as Attachment #1.

The purpose of this report is to provide an overview of the Sidewalk Repair Program and to outline an approach to deal with the issues identified.

DISCUSSION

The issue that has been identified is the use of asphalt as a temporary measure to repair concrete sidewalks.

To provide some background, London has 1471 km of sidewalk, which translates into an infrastructure value of $78 M. The overall condition of the sidewalk infrastructure is considered to be good condition. It can be noted that surface discontinuities (lips) can potentially occur at each 'joint' as seen in the picture on the right. Within our system, there are over 980,000 joints and 0.4% have been identified deficient then immediately treated.

The annual maintenance repair program is $1.4 M (excludes new installations and major road reconstruction projects were the entire sidewalk is replaced and utility cut repairs requiring concrete repairs).

Sidewalk Maintenance Standards

The Provincial Minimum Maintenance Standards for Municipal Highways (MMS) was amended is February 18, 2010 to include sidewalk surface discontinuities. The regulation states the following:

Sidewalk surface discontinuities

16.1 (1) The minimum standard for the frequency of inspecting sidewalks to check for surface discontinuity is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 23/10, s. 10; O. Reg. 47/13, s. 16 (1).
(1.1) A sidewalk that has been inspected in accordance with subsection (1) is deemed to be in a state of repair with respect to any surface discontinuity until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual

knowledge of the presence of a surface discontinuity in excess of two centimetres. O. Reg. 47/13, s. 16 (2).
(2) If a surface discontinuity on a sidewalk exceeds two centimetres, the minimum standard is to treat the surface discontinuity within 14 days after acquiring actual knowledge of the fact. O. Reg. 23/10, s. 10; O. Reg. 47/13, s. 16 (3).
(2.1) A surface discontinuity on a sidewalk is deemed to be in a state of repair if it is less than or equal to two centimetres. O. Reg. 47/13, s. 16 (4).
(3) For the purpose of subsection (2), treating a surface discontinuity on a sidewalk means taking reasonable measures to protect users of the sidewalk from the discontinuity, including making permanent or temporary repairs, alerting users' attention to the discontinuity or preventing access to the area of discontinuity. O. Reg. 23/10, s. 10.
(4) In this section,
"surface discontinuity" means a vertical discontinuity creating a step formation at joints or cracks in the surface of the sidewalk. O. Reg. 23/10, s. 10.

Municipalities can rely on the MMS when defending claims provided inspection and subsequent repairs are performed within the 14 day time period prescribed in the Provincial Regulation. The MMS allows for reasonable measures to protect the users from the surface discontinuities.

Inspection Program

Each spring, staff inspects the sidewalk infrastructure for Surface Discontinuities *(a vertical discontinuity creating a step formation at joints or cracks in the surface of the sidewalk that is greater than 2cm)* and for other surface conditions not considered an immediate liability but may need attention like depressions, severe cracking or other anomalies.

In 2013, over 4100 surface discontinuities were identified along with 4000 other surface conditions that could result in the replacement of sections ranging from 1.5 m to 30 m long. The majority of locations with surface discontinuities are the result of the freeze thaw cycle that is natural in our climate and tree roots applying upward pressure to the sidewalk. With over 160,000 boulevard tree locations and winter climate these conditions will continue to exist.

Legislative Compliance

During the annual inspection when a surface discontinuity is identified, fluorescent spray paint is **immediately** applied to the location as a precautionary measure and the deficiency is recorded using a map based program.

In order to meet the MMS requirements, the City utilizes the following measures to maintain compliance with the regulations:

1. Paint – which is applied immediately when a vertical discontinuity creating a step formation at joints or cracks in the surface of the sidewalk is observed to be greater than 2 cm. Paint is not permanent; therefore, one of the next three option are used.

2. Asphalt – considered a permanent treatment. It is noted that the use of asphalt to repair concrete sidewalks is unsightly and has been the subject of complaints from residents. It is quick repair that allows us to address the deficiency within the 14 day as prescribed in the MMS. The dedicated asphalt crews that complete these repairs do so along with other asphalt repairs in the area. i.e potholes, and minor maintenance.

3. Grinding – a grinder attachment is mounted on a small articulating tractor (used as snow plow in the winter) and is used to grind out the vertical discontinuity or step formation. The operator can treat 20-30 locations per day. These repairs are permanent.

4. Replacement – concrete replacement at some of the 4100 locations are completed in conjunction with other concrete repairs within the geographical maintenance district in order to gain efficiencies over multiple work sites.

The City has five concrete repair crews, two have been dedicated to sidewalk repairs since 2010 and the other three include sidewalk repairs as part of the concrete repairs associated with 'utility cuts' other concrete maintenance work. One crew costs approximately $210,000 and can place over 600 cubic meters of concrete per season.

In 2013, it is estimated that for the 4100 surface discontinuity locations, 45% will asphalted, 40% grinded and 15% will be replaced. The other 4000 locations are not considered immediate and will be scheduled accordingly and the over 900 utility cuts will be repaired this season as many of these are connected to road repairs.

To dedicate crews to address only the asphalted areas identified this year would cost approximately $630,000. This is equivalent to three seasonal crews.

Staff will also look to alternative concrete repair products that can be used instead on asphalt. The alternatives would need to resemble the concrete surface colour, setup as fast as asphalt and not be any more labour intensive than asphalt.

Acknowledgement

This report was prepared with the assistance of Don Purchase, Manager of Operations and Rob Burnard, Operations Technologist.

PREPARED BY:	**RECOMMENDED BY:**
JOHN PARSONS **DIVISION MANAGER** **TRANSPORTATION AND ROADSIDE OPERATIONS**	**EDWARD SOLDO, P.ENG.** **DIRECTOR – ROADS AND TRANSPORTATION**
REVIEWED AND CONCURRED BY:	
JOHN BRAAM, P.ENG. **MANAGING DIRECTOR OF ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER**	

September
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cc: Joy Jackson

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Attachment #1

July 14, 2013

Chair and Members
Civic Works Committee

Re: Sidewalk Repair Program

It has come to my attention that, as a result of budgetary constraints, sidewalk repairs are increasingly undertaken with the use of asphalt rather than concrete. Although this asphalt may be replaced with concrete if or when a crew is in the area, the asphalt repair is considered to be permanent and could remain indefinitely.

This use of asphalt for sidewalk repair is not only unsightly, but has resulted in safety concerns being raised by residents as well.

It is my understanding that the Sidewalk Repair Program now has a large and growing backlog that is accumulating due to factors that include lack of appropriate funding and aging infrastructure. In some of these cases the infrastructure has outlived its intended lifecycle.

I respectfully ask that the Civic Administration be requested to report back on why this type of patching is occurring and what options could be introduced to ensure permanent concrete repairs are completed in a timely manner.

The use of asphalt as a permanent repair for sidewalks is not acceptable to Londoners and if this deferred maintenance gap is not addressed with dedicated funding at an appropriate level the backlog will continue to grow.

I will be available to address any questions that may arise as a result of this request.

Respectfully,

Matt Brown
Councillor Ward 7