

CITY OF HAMILTON

PUBLIC WORKS DEPARTMENT
Environment & Sustainable Infrastructure Division

TO: Mayor and Members General Issues Committee	WARD(S) AFFECTED: WARD 2
COMMITTEE DATE: December 5, 2011	
SUBJECT/REPORT NO: ACPD Interlocking Brick Replacement Plan - (PW11095) - (Ward 2) (Outstanding Business List Item)	
SUBMITTED BY: Gerry Davis, CMA General Manager Public Works Department	PREPARED BY: Gary Moore (905) 546-2424, Extension 2382 John Murray (905) 546-2424, Extension 4479
SIGNATURE:	

RECOMMENDATION

- (a) That the removal of interlocking bricks from sidewalks in high traffic areas of the City, be considered at the time of capital renewal;
- (b) That consideration to use alternate materials for sidewalk installation and/or replacement, in coordination with future capital works projects be reviewed with ACPD;
- (c) That the item "ACPD Interlocking Brick Replacement Plan" be identified as completed and removed from the Public Works Outstanding Business List.

EXECUTIVE SUMMARY

In an Information Report (PW11053), dated July 4, 2011, staff advised the General Issues Committee that it would perform a review of the recommendations of the ACPD to determine the feasibility of developing a replacement plan, as part of the 2012 budget presentations.

Based on staff's review, there are approximately 717 linear metres, or 3,911 square metres, of brick sidewalks within the downtown core. Approximately 99% of the brick sidewalk is presently in acceptable or good condition. The current replacement cost, to replace all brick sidewalks, with urban braille textured concrete as a standalone project, is estimated to be \$1.2M.

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The most cost-effective means of replacing brick sidewalk is to defer all brick replacement at this time, until such time that brick sidewalk replacement can be coordinated with future road reconstruction projects. This strategy would allow for the existing brick to approach its full life-cycle before replacement, resulting in an achieved value of the brick asset's current financial investment. As well, over the course of time, new construction materials or techniques may develop which could ultimately become a preferred technology over replacement of brick with common concrete.

Alternatives for Consideration - See Page 4

FINANCIAL / STAFFING / LEGAL IMPLICATIONS

Financial: The current cost to replace all brick sidewalks with urban braille textured concrete is estimated to be \$1.2M.

Staffing: The recommendations in this report would not require additional FTEs to implement.

Legal: N/A

HISTORICAL BACKGROUND

On the February 8 meeting of the Advisory Committee for Persons with Disabilities, the following recommendation was passed:

"That ACPD recommend to Council that Public Works develop a replacement plan to remove interlocking bricks that are currently being used in high traffic areas of the City to build sidewalks as they present barriers to accessibility and safety for pedestrians."

This recommendation was subsequently received by the General Issues Committee on March 22 and approved by Council on April 13. In an Information Report (PW11053), dated July 4, 2011, staff advised the General Issues Committee that it would perform a review to determine the feasibility of developing a replacement plan, and staff proposed that it would provide a detailed report on the replacement plan as part of the 2012 budget presentations.

Brick is used extensively in the downtown core, mainly for its aesthetic value in developing and fulfilling streetscaping master plans, or as conditions of development and beautification needs.

POLICY IMPLICATIONS

The recommendations contained in this report support the Mission Statement of the Public Works Business Plan "Innovate Now" - "*sound financial management for the long haul*".

RELEVANT CONSULTATION

The Ward 2 Councillor has been notified of the recommendations contained in this report and approves.

ANALYSIS / RATIONALE FOR RECOMMENDATION

In order to identify the impact of a replacement plan, the following tasks were performed:

1. Create inventory
2. Condition assessment
3. Create replacement strategy coordinated with future associated capital works
4. Estimate replacement value
5. Identify implementation period
6. Address each year as part of the Capital budget deliberations

Based on the review, below is a summary of the findings for each of the tasks above:

1. Create Inventory

The total combined inventory of brick sidewalks in the downtown core is 717 metres, or 3,911 square metres. A listing of brick sidewalk locations is attached as Appendix "A".

2. Condition Assessment

An assessment of the condition of the brick sidewalks was conducted, and results of the inspection indicate that 30% of the brick is in "Good" condition, 69% is in "Acceptable" condition and 1% is in "Poor" condition, meaning that 99% of all brick is currently in "Acceptable" or "Good" condition. A breakdown of sidewalk condition is provided in Table 1 below.

Table 1

Asset	Good Condition	Acceptable Condition	Poor Condition	Total
Brick Sidewalk	30%	69%	1%	100%

3. Create Replacement Strategy Coordinated With Future Associated Capital Works

The list of streets in the downtown core that have brick sidewalks was cross-referenced with the proposed 10-year capital program, to identify opportunity where removal of the brick sidewalks could be coordinated with upcoming reconstruction projects.

Most of the streets have either been rehabilitated in recent years, are in acceptable condition, or are in need of rehabilitation but not affordable based on current funding levels, and therefore not currently proposed within the 10-year capital program.

4. Estimate Replacement Value

The current replacement cost of all brick sidewalks in the downtown core was estimated. The estimate was based on removing brick and replacing it with urban braille textured concrete, and includes the costs of design, traffic control and contingencies. Results of the estimate indicate that it would cost approximately \$1.2M to replace all of the brick sidewalks with urban braille textured concrete. The sidewalk cost estimate is displayed in **Table 2** below.

Table 2

Asset	* Current Replacement Cost-estimate (Urban Braille Textured Concrete)
Brick Sidewalk Replacement	\$1.2M

** Cost estimate includes 15% Design, 1.76% HST, 5% Traffic Control and 10% Contingencies*

5. Identify Implementation Period

It is recommended that the recommendations of the Advisory Committee for Persons with Disabilities (ACPD), to remove interlocking bricks from sidewalks in high traffic areas of the City, not be implemented at this time, but that the replacement be coordinated with the annual reconstruction and rehabilitation program.

6. Address each year as part of the Capital budget deliberations

It is recommended that as streets that currently have brick sidewalk deteriorate to a reconstruction need, and are proposed for reconstruction and brought forward through the Capital Roads Program for Capital Budget Deliberations, consideration be given to the use of alternate materials for sidewalk installation and/or replacement in the proposed reconstruction year.

ALTERNATIVES FOR CONSIDERATION:

*Please refer to **Table 3** below.*

Alternative 1: One alternative to the recommendations in this report is to replace all brick sidewalks on streets within the downtown core, with urban braille textured concrete, in a given year, in the short-term, as non-coordinated works. The cost to perform this replacement is estimated to be \$1.2M.

Alternative 2: A second alternative to the recommendations in this report is to develop a plan to replace all brick sidewalks on streets within the downtown core, with urban braille textured concrete, over the course of five years, as non-coordinated works. The cost to perform this replacement is estimated to be \$240,000 annually.

Table 3

Asset	* Current Replacement Cost-estimates	
	When coordinated with reconstruction program	As standalone works
Brick Sidewalk Replacement	\$870K	\$1.2M

** Cost estimate includes 15% Design, 1.76% HST, 5% Traffic Control and 10% Contingencies*

CORPORATE STRATEGIC PLAN

Focus Areas: 1. Skilled, Innovative and Respectful Organization, 2. Financial Sustainability, 3. Intergovernmental Relationships, 4. Growing Our Economy, 5. Social Development, 6. Environmental Stewardship, 7. Healthy Community

Financial Sustainability

- The recommendations in this report endeavour to control the financial pressures created by a brick sidewalk replacement program while responding to the requests of the community.

Social Development

- A program to consider the use of alternate materials to replace existing brick sidewalks within the downtown core in coordination with future road reconstruction projects, demonstrates to the Advisory Committee for Persons with Disabilities (ACPD) that we are listening to their concerns and searching for solutions in a financially responsible manner.

APPENDICES / SCHEDULES

Appendix “A” - Listing of Brick Sidewalk Locations

Listing of Brick Sidewalk Locations

STREET	FROM	TO
Catharine Street North	Cannon Street East	Wilson Street
Cathcart Street	Cannon Street East	Kelly Street
Colbourne Street	Park Street North	MacNab Street North
Hughson Street South	King Street East	Main Street East
Hunter Street South	James Street South	Hughson Street South
James Street North	York Boulevard	King Street West
James Street South	King Street	Main Street
King Street West	Bay Street	James Street
Main Street West	Bay Street	Summers Lane
Summers Lane	Main Street West	King Street West