



To: General Purposes Committee

Date: June 30, 2003

From: Steve Ono, P.Eng.
Director, Engineering

File: 6340-20-P.02301

Re: **Blundell Road No.4 Road to No. 5 Road – Residents' Request for Walkway**

Staff Recommendation:

That the "Blundell Road No.4 Road to No. 5 Road – Residents' Request for Walkway" report dated June 30, 2003 from the Director of Engineering be received for information.

Steve Ono, P.Eng.
Director, Engineering

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ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Transportation	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Parks, Design and Construction	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Law	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

Staff Report

Origin

It was resolved at the June 18, 2003 Public Works and Transportation Committee meeting,

“That the request for construction of a walkway along the south side of Blundell Road between No. 4 Road and No. 5 Road be referred to staff for a report on the various options and costs of including extruded curb or a white line to demarcate the shoulder from the actual roadway.”

Furthermore, the committee directed staff to address the following;

- a) why and when extruded curb/painted lines would be used;
- b) safety and liability issues related to the use of extruded curb and painted lines
- c) whether providing a demarcation on the pavement would result in a ‘passing lane’
- d) the ramifications of installing either an extruded curb or painted lines; and
- e) other options and measures which were available for medians and curbs.

This purpose of this report is to follow-up on the committee resolution and direction.

Analysis

The Blundell Road upgrade project extends from No. 4 Road to No. 5 Road. Upon completion under the current scope of work, the road will include:

- a storm sewer ditch infill on the south side of the road,
- a new watermain from Shell Road to No. 4 Road,
- a new layer of asphalt,
- a 3.6 m wide vehicle lane, a painted white line along the side of the road, a 0.2 metre wide paved shoulder, and a 0.6 m gravel shoulder.

Residents desire a pedestrian walkway separate from the vehicle lanes.

Options For a Walkway

1 1.5 m Wide Asphalt Separated by a Painted Line

What	This is a reflective painted line separating a 1.5 m wide asphalt walkway adjacent to a vehicle travel lane.
Why/When	Painted lines are used to demarcate the travel lane from the shoulder of the road. They are typically used where the vehicle lanes are wider than 3.5 metres and vehicles are travelling adjacent to the walkway. Therefore a 1.5 metre wide asphalt walkway separated by a paint line would be an acceptable standard.
Safety/Liability	<p>The City has not experienced any legal problems or litigation associated with the use of painted shoulder lines.</p> <p>Passing can occur when a left turning vehicle is waiting for oncoming traffic to clear, and a car from behind passes the turning vehicle on the shoulder side. Use of the shoulder as a passing lane in this regard has not been an issue in the past on Blundell Road. The combined low volume of left turning vehicles (mostly turning into driveways) and the low volume of pedestrians and cyclists minimises the potential for conflicts. The City has not historically experienced an increase in passing problems after the placement of a painted line.</p>
Pro's	Lowest cost option
Con's	<p>No physical barrier between pedestrian and vehicle.</p> <p>Requires deferral of a 2003 capital program sidewalk construction project in the City Centre.</p>
Cost	\$130,000
Funding	Deferral of the 2003 Capital Project – Alderbridge Way Sidewalk from Elmbridge Way to Cedarbridge Way - \$127,800.

2 1.5 m Wide Asphalt Separated by Extruded Concrete Curb

What	This is an extruded concrete curb (painted yellow) separating a 1.5 m wide asphalt walkway adjacent to a vehicle travel lane.
Why/When	Extruded curbs are used to separate the travel lane from the shoulder of the road. They are typically used where the vehicle lanes are more narrow and vehicles may travel closer to the shoulder or walkway. The use of

extruded curb at this location is not necessary, but can be considered as a safety enhancement feature for pedestrians.

Safety/Liability	As per option 1.
Pro's	Enhanced safety over painted lines due to the physical separation provided by the curb
Con's	Higher construction and on-going maintenance cost.
	Extruded curbs will force cyclists to one side of the curb or the other. If an extruded curb is placed to separate a shoulder from a narrow travel lane, the travel lane may be of insufficient width to accommodate bicycle traffic. The lane width necessary to allow both vehicle and bicycle traffic is 4.3 metres. Blundell Road is a designated bicycle route and the available lane width is approximately 3.6 metres. Therefore a bike lane cannot be accommodated in the vehicle travelled roadway.
	Rather than being continuous along the roadside, the curb will be broken approximately every 20 m to accommodate the driveways. This may be aesthetically undesirable.
	Requires deferral of two 2003 capital program sidewalk construction projects in the City Centre.
Cost	\$173,000
Funding	Deferral of the 2003 Capital Project – Alderbridge Way Sidewalk from Elmbridge Way to Cedarbridge Way - \$127,800.
	Deferral of the 2003 Capital Project – Alderbridge Way Sidewalk from Hazelbridge Way to 500 Metres east - \$115,000.

3 1.5 m Wide Asphalt Separated by No-Post Barriers

What	This is a concrete (Highway or Jersey style) roadside barrier separating a 1.5 m wide asphalt walkway adjacent to a vehicle travel lane.
Why/When	No-post barriers are typically used in highway applications and can be adapted for City use in rural higher speed and high traffic volume roadways.
Safety/Liability	As per option 1.
Pro's	Enhanced safety over painted lines and curbs due to the physical barrier provided.

Con's	<p>Most expensive option.</p> <p>Like extruded curbs, no-post barriers will force cyclists to one side or the other. The same concerns for cyclists exist as in option 2.</p> <p>Aesthetically undesirable.</p> <p>Requires deferral of three 2003 sidewalk construction projects.</p>
Cost	\$271,000
Funding	<p>Deferral of the 2003 Capital Project – Alderbridge Way Sidewalk from Elmbridge Way to Cedarbridge Way - \$127,800.</p> <p>Deferral of the 2003 Capital Project – Alderbridge Way Sidewalk from Hazelbridge Way to 500 Metres east - \$115,000.</p> <p>Deferral of Pacemore Walkway - \$75,000.</p>

4 Combined Trail / Walkway Separated from Road

What	This is a combined trail / walkway approximately 2.0 metres wide separate from the roadway following the contours of the boulevard and driveways including additional drains.
Why/When	To achieve the trail connection as noted in Parks' 2010 Richmond Trail Strategy.
Safety/Liability	As per option 1.
Pro's	<p>Enhanced safety over painted lines and curbs due to the physical separation from the roadway.</p> <p>Achieves a future trail link identified in the 2010 Richmond Trail Strategy.</p>
Con's	<p>Will not be as friendly to cyclists and wheel chairs as a level walkway adjacent to the road.</p> <p>Due to steep boulevard grades between the roadway and private properties the trail will not be consistently level and will have to follow boulevard grades and cross steep driveways.</p> <p>Requires deferral of a 2003 capital program sidewalk construction project in the City Centre and deferral of two Parks dyke trail access projects.</p>
Cost	\$150,000

Funding

Deferral of the 2003 Capital Project – Alderbridge Way Sidewalk from Elmbridge Way to Cedarbridge Way - \$127,800. Require only \$70,000 of this project's budget.

Deferral of the construction of two dyke access points from Parks' capital program - \$60,000.

Utilizing \$20,000 of excess Drainage DCCs remaining from the Blundell Road storm sewer tender.

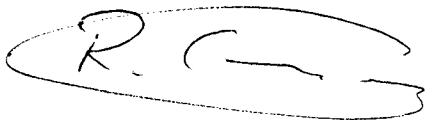
Financial Impact

There are no financial impacts at this time.

Conclusion

The City receives many requests for walkways and these are normally forwarded for consideration to the Land and Capital Team for inclusion in the City's capital program. The Capital Team prioritizes projects based upon a variety of criteria, which include safety, and availability of funds. The Capital Team subsequently submits the recommended projects to Council for review and approval on an annual basis.

Referring this request to the Capital Team will allow this request to be considered in context with other projects, availability of funds, and requests received from residents.



Robert Gonzalez, P.Eng.
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