Minute No. 604
Report - Standing Policy Committee on Infrastructure Renewal and Public Works - September 23, 2008

Item No. 1 **Disraeli Bridges Rehabilitation Project Conceptual Design Recommendation**
File SB-3

COUNCIL DECISION:

Council concurred in the recommendation of the Standing Policy Committee on Infrastructure Renewal and Public Works and adopted the following:

1. That Concept Modified A involving refurbishment of the existing concrete foundations and steel bridge girders, and replacement of the existing bridge deck to a four-lane divided roadway with one sidewalk, with an additional bridge over the river for cyclists and pedestrians, be approved by Council as the minimum requirement for the Disraeli Bridges Project.

2. That the Director of Planning, Property and Development be authorized to negotiate the acquisition of land required for the Disraeli Bridges Project.

3. That the Chief Administrative Officer be delegated the authority to award the multi-year contract for the Design, Build, Financing and Maintenance of the Disraeli Bridges Project. This authority may not be further delegated.

4. That the Proper Officers of the City be authorized to do all things necessary to implement the foregoing.

Report - Standing Policy Committee on Infrastructure Renewal and Public Works - September 23, 2008

DECISION MAKING HISTORY:

Moved by Councillor Clement,

That the recommendation of the Standing Policy Committee on Infrastructure Renewal and Public Works be adopted.

The motion for adoption of the item was put.

Councillor Browaty called for the yeas and nays, which were as follows:

Yea: His Worship Mayor Katz, Councillors Clement, Fielding, Gerbasi, Nordman, O'Shaughnessy, Pagtakhan, Smith, Steeves, Swandel and Lazarenko. 11

Nay: Councillor Browaty, Thomas, Vandal and Wyatt. 4

and the motion for adoption of the item was declared carried.

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On September 24, 2008, the Executive Policy Committee concurred in the recommendation of the Winnipeg Public Service and submitted the matter to Council.

Further, on September 24, 2008, the Executive Policy Committee received a petition (46 pages) from Bruce King, King Insurance, in opposition to the closure of the Disraeli Freeway.

STANDING COMMITTEE RECOMMENDATION:

On September 23, 2008, due to a tie vote, the Standing Policy Committee on Infrastructure Renewal and Public Works submitted the matter to Executive Policy Committee and Council without recommendation.

Further on September 23, 20008, the Standing Policy Committee on Infrastructure Renewal and Public Works received as information the communication dated September 23, 2008 from John G. Kubi, Chair, East Kildonan-Transcona Residents' Advisory Group.

RE: Disraeli Bridges Rehabilitation Project Conceptual Design Recommendation

FOR SUBMISSION TO: **Standing Policy Committee on Infrastructure Renewal and Public Works**

ORIGINAL REPORT SIGNED BY: **Director of Public Works**

REPORT DATE: **September 19th, 2008**

RECOMMENDATION:

A. That Concept Modified A involving refurbishment of the existing concrete foundations and steel bridge girders, and replacement of the existing bridge deck to a four-lane divided roadway with one sidewalk, with an additional bridge over the river for cyclists and pedestrians, be approved by Council as the minimum requirement for the Disraeli Bridges Project.

B. That the Director of the Planning, Property and Development Department be authorized to negotiate the acquisition of land required for the Disraeli Bridges Project.

C. That the Chief Administrative Officer be delegated the authority to award the multi-year contract for the Design, Build, Financing and Maintenance of the Disraeli Bridges Project. This authority may not be further delegated.

D. That the Proper Officers of the City be authorized to do all things necessary to implement the foregoing.

Report Summary

Key Issues:
Council approval of a Conceptual Design is required at this time, in order for the Project to proceed as scheduled.

The recommended Conceptual Design with four traffic lanes including widened shared vehicle and cyclist curb lanes with one pedestrian sidewalk on the Disraeli Bridges, and an additional bridge over the river for cyclists and pedestrians, provides an acceptable level of service for all users, for the foreseeable future. The recommended Conceptual Design permits widening in the future, if the need arises.

An objective of the Project is to complete construction in the shortest possible time with the least possible disruption to affected businesses and private citizens who rely on the current Disraeli Freeway for their regular commute, and, if possible, to keep some or all lanes of the existing Disraeli Freeway (including the Rail Overpass and Bridge) open during construction.

Implications of the Recommendation(s):

General Implications

X	None
	For the organization overall and/or for other departments
	For the community and/or organizations external to the City
	Involves a multi-year contract

Comment(s):

Policy Implications

X	No
	Yes

Comment(s):

Regulatory Implications

X	None
	Eliminates or reduces regulatory impact
	Proposes regulatory impact

Comment(s):

Environmental Implications

X	No
	Yes

Comment(s):

Human Resources Implications

X	No
	Yes

Comment(s):

Financial Implications

	Within approved current and/or capital budget
X	Current and/or capital budget adjustment required

Comment(s): Total project costs are estimated to increase by $15.0 million, with $2.5 million relating to incremental procurement costs and $12.5 million related to incremental construction costs. An additional $2.50 million is required from the 2009 Capital Budget to fund the incremental procurement costs.

Report

REASON FOR THE REPORT:

To recommend a Conceptual Design for the Disraeli Bridges Project for consideration by Council. This is in accordance with the report to proceed with a Design/Build/Finance/Maintain delivery model for the Disraeli Bridges Project, approved by Council on May 14, 2008.

HISTORY:

The Disraeli Freeway was completed in 1960 to connect Henderson Highway with Main Street providing a vital link between the downtown and the northeastern portion of the City. It includes the Red River Bridge and CPR Overpass which were opened in 1959 and 1960, respectively. The Red River Bridge is approximately 319 m long and spans the Red River as well as Midwinter Avenue, Rover Avenue and Gladstone Street. The CPR Overpass is approximately 388 m long and spans the CPR Mainline as well as Sutherland Avenue and Higgins Avenue. In total, there are 30 spans with an overall structure length of 707 m.

The City of Winnipeg retained the Dillon/Earth Tech Project Team to undertake a preliminary design study for the rehabilitation of the Disraeli Freeway between Main Street and Hespeler Avenue. The preliminary design study includes a condition assessment of the existing facility, determination of conceptual rehabilitation alternatives and a preliminary design of the recommended rehabilitation project. In December, 2006 the engineering consultant submitted the Conceptual Design and Condition Assessment Reports. The Condition Assessment found numerous deficiencies that need major rehabilitation in order to preserve the facility and to meet current design standards. Based on the results of the engineering consultant's condition assessment of the facility, the consultant recommends that construction be scheduled by 2011.

On December 18, 2007, Council approved funding in the 2008 Capital Budget and 2009 to 2013 Five Year Forecast related to the Disraeli Bridges Rehabilitation Project for cash to capital for procurement, administration, internal contract works, and property acquisition in 2008 to 2010 and lease payments in 2010, 2011, 2012, 2013 and beyond intended for a Design/Build/Finance/Maintain Agreement.

On May 14, 2008 Council concurred in the recommendation of the Executive Policy Committee and adopted the following:

1. That the Winnipeg Public Service be authorized to proceed with the Disraeli Bridges Rehabilitation Project based on a Design/Build/Finance/Maintain delivery model and that the Chief Administrative Officer be authorized to approve and issue the Request for Qualifications and the Request for Proposals for the Project.

2. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

DISCUSSION:

A. Public Consultation Program

The Disraeli Freeway Public Consultation Program unfolded in three distinct stages: 1) Research phase resulting in a Community Profile and Impact Study (April 2006); 2) Stakeholder Advisory Committee to work closely with the project consultants and City of Winnipeg project representatives; and, 3) Public communication to provide information about the project and obtain public input. The goal of the public consultation was for the public to contribute meaningfully to ensure a project that is: *Technically sound; reflects the needs of the community, and city in general; cost-effective; environmentally responsible and safe; and, generally understood and accepted by most of those affected.*

1. Stakeholder Advisory Committee

A Stakeholder Advisory Committee (SAC) was established with representatives from Elmwood, East Kildonan, Point Douglas and city-wide organizations to work together with the City of Winnipeg project representatives to provide input, identify issues and discuss reasonable options to enhance the project and help mitigate impacts during construction. The committee was asked to focus on preliminary conceptual plans that had been studied by the consultants as best fitting the City's available budget, while meeting rehabilitation upgrade standards and including some additional upgrades to improve safety and accessibility.

The SAC went through a series of eight meetings that included: presentation of project information; responses to questions and SAC discussion; development of three project options to be presented to broad public for input; presentation of broad public input research and analysis; an evaluation and final decision making process and recommendation of preferred concept.

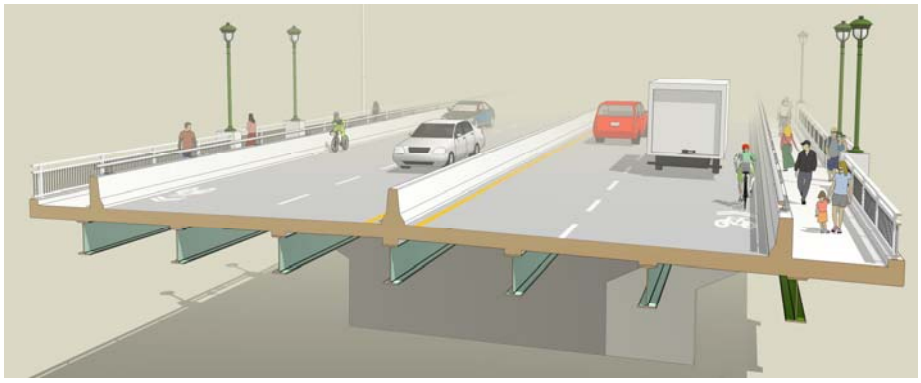
2. Development of Bridge Alternatives

After considering the needs of all users of the Disraeli Bridges, the SAC developed three project options to present to the broad public and they are described, with illustrations, as follows:

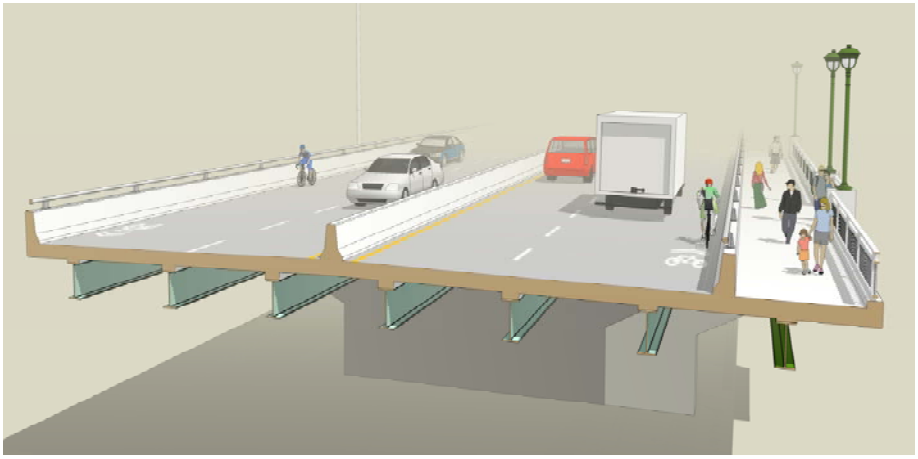
<u>Concept A - $125 Million:</u>
This option provides basic rehabilitation for the structures with a proposed deck width of 20 metres. There are two 4.4 metre shared vehicle and cyclist curb lanes and one 1.8 metre sidewalk on the east side. In this concept, pedestrians use under-bridge crossings, the crossing at Dearborn Avenue and the overpass at Argyle School to cross to the other side. Modification of piers or abutments is not required.



Concept B- $160 M:
Similar to Concept A, with 4.4 metre shared vehicle and cyclist curb lanes, the deck would be widened to 22.1 metres to accommodate a second 1.8 metre wide sidewalk on the west side. With two sidewalks, pedestrians would not have to cross the roadway or go under the bridge to reach the other end, enhancing accessibility and security. This option requires piling as well as modifications and widening of the land-based piers and abutments and additional girder lines supporting the wider deck.



Concept C - $160 M:
This option requires the deck to be widened to 21.4 metres, includes only one sidewalk widened from 1.8 to 2.5 metres, and would increase vehicle and cyclist shared curb lanes from 4.4 to 4.75 metres. With this concept, the widened sidewalk provides more accommodation for pedestrians and recreational users. As with Concept A, the sidewalk would be located along the east edge. This option also requires piling and modifications and widening of the land-based piers and abutments, and additional girder lines supporting the wider deck.



3. Broad Public Input

An informative publication, in the form of a colour, 6-page fold out newsletter with text and illustrations and maps, was produced for door to door distribution to each address in the neighbourhoods closest to the Freeway. Close to 11,000 newsletters were distributed in Point Douglas, Chalmers, Glenelm, Munroe West, Kildonan Drive and a portion of Rossmere from April 21 – 23, 2008. A similar publication in the form of a display advertisement was also published in the Winnipeg Free Press and a community newspaper, The Herald on April 24th and The Winnipeg Sun on April 25th.

A media release prior to the Open Houses resulted in wide-spread and accurate media coverage about the project. Open Houses were held in three different locations within the project area, including the Norquay Community Centre in Point Douglas, the MTS Centre in Downtown and the Good Neighbours Seniors Centre in East Kildonan.

In addition, a random sample telephone survey was conducted with 400 residents living in Point Douglas, Elmwood and East Kildonan and a survey was attempted of all the 91 businesses along Henderson Highway from the Disraeli Bridges to Leighton. The detailed results of these surveys are presented in the consultant's report.

In total, approximately 700 individuals registered their views about the project either through response coupons, open house comment sheets, general emails, and the phone or mail-back surveys.

Although there are some differences to be noted between the different groups – residential survey, business survey and informed public – there are some general conclusions that were drawn:

- There is no one option that is favoured by a clear majority of respondents. However, there are preferences that emerge within each surveyed group based on where the respondent lives and how they use the bridge.
- A clear majority support the investment of funds for features that they value. As a result, Option A, which is the least expensive of all three is not a strong contender for most respondents.
- Neither of the two options that are most preferred includes all of the features that a majority can support. Options B and C, which are the most popular options, include features that are unique to each particular option. As such, it becomes a trade-off where to have the feature they desire, makes the other options unacceptable.
- While each option addresses the interests of a particular group, none combines those interests into a single option that is acceptable to the majority.

- Residents think the most important aspect of the project is “addressing traffic needs during construction”, as 84% of residents surveyed rate this aspect as important.

4. Development of a Recommended Bridge Option

Once the results of the public input had been analyzed and presented, the SAC further assessed these three options in light of the input. As a result, two new options were identified, referred to as Modified Concept A and Modified Concept B. The first was submitted by Bike to the Future, a community organization “working to make cycling in Winnipeg a safe, enjoyable, accessible and convenient transportation choice year-round”. The second is a modification of Option B, which was developed by the SAC in an effort to combine all of the features that the majority support, namely cyclists and pedestrians. Both are described as follows:

Concept Modified A:
In addition to a basic rehabilitation of the bridge structures as described with Concept A, an additional multi-use bridge would be built over the river for cyclists and pedestrians that would link to the existing Active Transportation Route along Annabella in Point Douglas to Brazier Avenue in Elmwood, as shown in Appendix A. The total estimated cost is $140 million.

Concept Modified B:
The SAC developed this option by expanding the amount of deck in order to provide the best features of both Concepts B and C. This option would include two widened sidewalks that could be used as multi-purpose, recreational pathways. This option requires an additional girder line and the estimated cost is $185 million.

After full discussion, the SAC underwent an evaluative decision making process in order to rate each option according to the project goal and evaluative criteria emerging from this goal.

- Technically Sound (function and least design risk)
- Needs of the Community
- Needs of the City
- Cost Effectiveness (best value for money spent)
- Environmentally Responsible (increases cycling, using existing facilities, construction impacts)
- Personal Safety (actual and perception)
- Access (connection to neighbouring communities)
- Generally understood and accepted by most of those affected

Two options rated highly in meeting the evaluative criteria that the SAC established for the project – Concept B and Modified Concept A. However, each option did so in different ways. The SAC resolved their challenge by recommending Concept B. The SAC went another step and asked that the Public Works Department provide Council

with information about Modified Concept A, as an option that came forward through the public consultation process that did rate highly, just not as highly as Concept B.

B. Financial Discussion

Based on a Class 5 estimate, the total increase in project costs related to adding a pedestrian bridge to Concept A (Concept Modified A) is estimated at $15.0 million, with $2.50 million relating to incremental procurement costs and $12.5 million related to incremental construction costs.

Procurement costs related to the Design/Build/Finance/Maintain (DBFM) method of procurement are paid for by the City and are in most instances incurred in the earlier stages of the project. These incremental costs include items such as conceptual design, public consultation, environmental assessments and geotechnical testing. As a result, an additional $2.5 million in procurement costs will be required from the 2009 Capital Budget.

Construction costs are paid for by the successful proponent and ultimately reflected in the City's lease payments over the period of the lease (i.e. – financed over a long period of time).

The City's lease payments for the DBFM agreement related to Concept Modified A will be influenced by the successful proponent's capital structure, borrowing rates and term of the lease.

We have reviewed various financing scenarios regarding Concept Modified A and have determined that amounts forecasted in the 2008 Capital Budget for the Disraeli Bridges Project, as contained in the Disraeli Bridge and Overpass Facility project and Capital Investment Fund project are sufficient to fund the future lease payments for Concept Modified A, based on the DBFM method of procurement.

These lease payments are forecasted to begin in 2010. Our analysis has assumed that the forecasted lease payments beginning in 2010 will continue for a period of 30 years (i.e. – for capital budgets 2010 through 2039).

Our analysis also assumes that all environmental approvals are obtained by the City in a timely manner and do not result in any delays in construction.

Our analysis assumes that the proposed pedestrian bridge will be built on City owned land and there will be no land acquisition costs.

C. Recommended Conceptual Design

It is recommended that Concept Modified A involving refurbishment of the existing concrete foundations and steel bridge girders, and replacement of the existing bridge deck to a four-lane divided roadway with one sidewalk, with an additional bridge over the river for cyclists and pedestrians, be approved by Council for implementation as the minimum requirement for the Disraeli Bridges Project.

Concept Modified A is recommended on the basis that it best achieves the project objectives. The recommended conceptual design is the most cost-effective plan, accommodates future widening better and provides the best overall alternative for all networks of Active Transportation.
The DBFM procurement documents will provide that advice and commentary recently received by the City from private sector participants involved in other Canadian P3 projects have encouraged the City to invite proposals for the design, build, financing and maintenance of new as well as refurbished Bridges in order to open competition to the best solutions that the private sector can offer respecting:

(a) refurbishment, or
(b) new construction, or
(c) a combination of refurbishment and new construction.

The DBFM procurement documents will also open competition to the best solutions that the private sector can offer to achieve the functionality of the Concept Modified A, including single bridge solutions that would accommodate cyclists and pedestrians at least as well as an additional bridge.

To address public concerns about traffic accommodation during construction, the DBFM procurement documents will state that an objective of the City for the Project is to complete construction in the shortest possible time with the least possible disruption to affected businesses and private citizens who rely on the current Disraeli Freeway for their regular commute, and, if possible, to keep some or all lanes of the existing Disraeli Freeway (including the Rail Overpass and Bridge) open during construction.

The engineering consultant has advised that the major rehabilitative works need to commence by 2011 to ensure the continued safe and reliable operation of the bridge. In order to achieve this, the following implementation schedule is recommended:

Issue Request for Qualifications	August 2008
Council Approval of Recommended Concept	Sept 2008
Issue Request for Proposals	Nov 2008
Approval of DBFM Agreement	Fall 2009
Construction	2010/2011

Financial Impact Statement

Date: September 15, 2008

Project Name: **First Year of Program** **2010**

Disraeli Bridges Rehabilitation Project Conceptual Design Recommendation

	2009	2010	2011	2012	2013
Capital					
Capital Expenditures Required	$ 2,500,000				
Less: Existing Budgeted Costs					
Additional Capital Budget Required	$ 2,500,000	$ -	$ -	$ -	$ -
Funding Sources:					
Debt - Internal		$ -	$ -	$ -	$ -
External	-	-	-	-	-
Grants (Identify)	-	-	-	-	-
Reserves, Equity, Surplus, Other	-	-	-	-	-
Total Funding	$ -	$ -	$ -	$ -	$ -
Total Additional Capital Budget Required	$ 2,500,000				
Total Additional Debt Required	$ -				
Current Expenditures/Revenues					
Direct Costs	$ -				
Less: Incremental Revenue/Recovery	-	-	-	-	-
Net Cost/(Benefit)	$ -	$ -	$ -	$ -	$ -
Less: Existing Budget Amounts	-				
Net Budget Adjustment Required	$ -	$ -	$ -	$ -	$ -

Additional Comments: Amounts forecasted in the 2008 Capital Budget for the Disraeli Bridges Project, as contained in the Disraeli Bridge and Overpass Facility project and Capital Investment Fund project are sufficient to fund the future lease payments for Concept Modified A, based on the DBFM model of procurement. The forecasted funding for these lease payments begins in 2010 and we have assumed that these amounts will continue for a period of 30 years (i.e. - for capital budgets 2010 through 2039).

"Original Signed by Jason Ruby, CA"
Financial Lead - Disraeli Bridges Project

IN PREPARING THIS REPORT THERE WAS:

Internal Consultation With and Concurrence By:

Corporate Finance
Internal Services Department, Legal Services Division (as to legal issues)

External Consultation With:

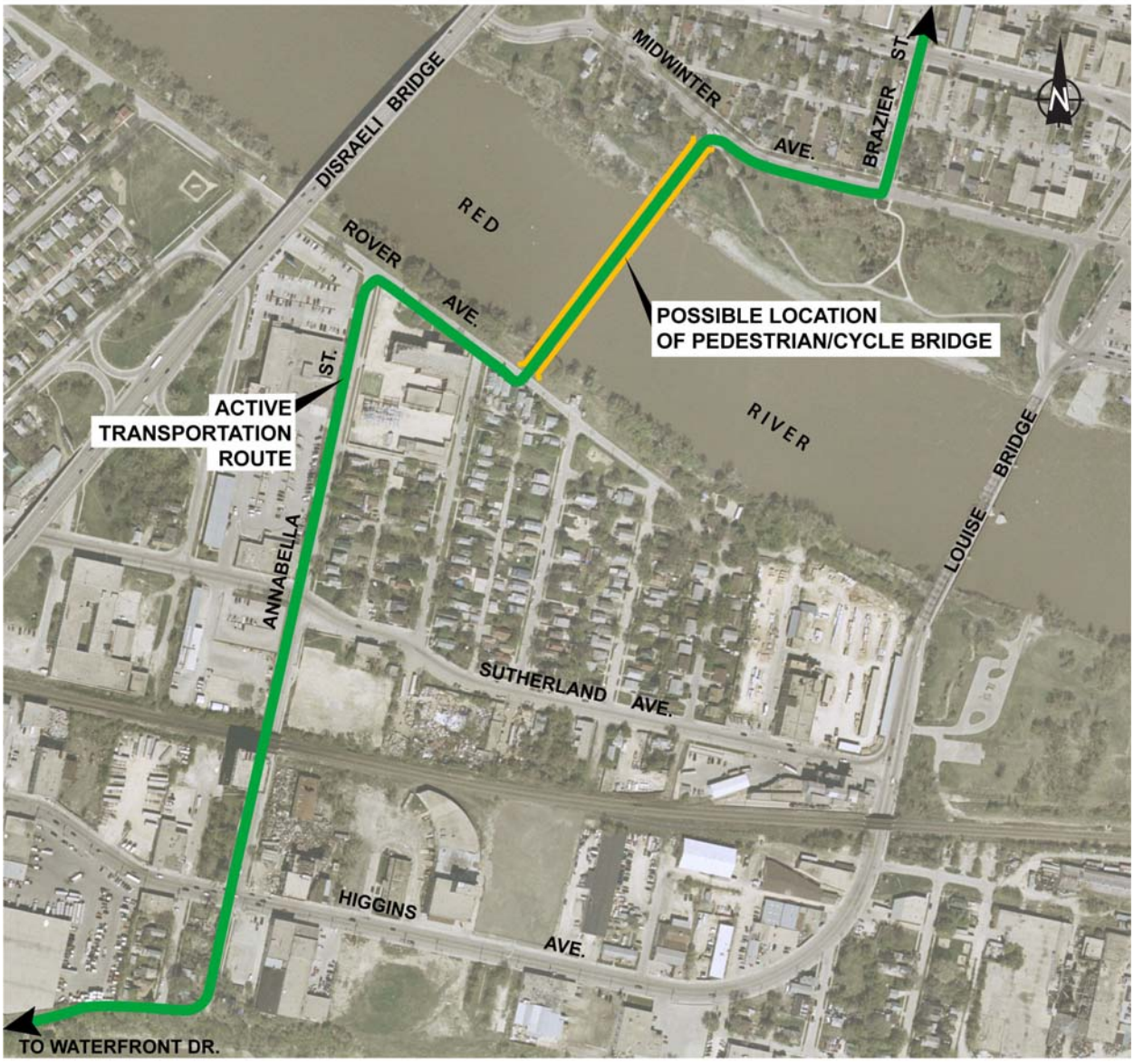
The public consultation process is outlined herein.

THIS REPORT SUBMITTED BY:

Department: Public Works Department
Division: Engineering Division
Prepared by: B. Ebenspanger, P. Eng. 986-3712
Processed by: J. Black 986-4141
File No.:
File Name: L:\Admin\Reports 2008\Bill Ebenspanger\Disraeli Bridges Project\Disraeli Bridges Conceptual Design Recommendation Report Sept 18 08.doc

Attach.

APPENDIX A



DISRAELI BRIDGES PROJECT
CONCEPT MODIFIED A