University of Manitoba - Faculty of Engineering Capstone Design Project
File PR-4 (Vol. 13)

7. The Standing Policy Committee on Public Works has been advised that in the 2002 fall session of the University of Manitoba, the Faculty of Engineering's Civil Engineering Department is introducing the Capstone Design Course to fourth-year engineering students. The Capstone Design Course is an interdisciplinary project-based course involving teamwork and encompassing knowledge in transportation, hydraulic, environmental, geotechnical, and structural engineering. Students are expected to work in pre-assigned teams assisted by an assigned non-academic professional mentor. As well, the teams will have access to academic professionals (student advisors) who will provide general guidance on specific aspects of the assigned project. The course facilitates the transition between the academic world and the real world (industry) through participation in a meaningful design project under the mentorship of both academic and non-academic professionals. The undergraduates will be exposed to the design environment they will encounter in industry. The course builds on teamwork skills and prepares students for teamwork in industry.

The Faculty is attempting to engage engineering design stakeholders in supporting the course. As the City of Winnipeg is a major stakeholder in the engineering design and construction industry, there are opportunities for participation by City staff in delivery of the course. Dr. Jay Doering, Head of the Civil Engineering Department at the Faculty of Engineering, has requested that the City enter into a long-term partnership with the Faculty in the delivery of the Capstone Design Course in order to ensure a quality course for students.

The benefits to the City include the opportunity to undertake design projects that may be otherwise unaffordable, at little or no cost, taking advantage of the resources provided by the University, and including state-of-the-art technology currently being taught to the students at the University.

The fall 2002 Capstone Design Project is the design of a pedestrian crossing of the La Salle River in the vicinity of the Ruines Du Monastere. This crossing would make accessible the parklands located south and east of the River from the Ruines Du Monastere. Undertaking this design project will provide the City with a number of concepts for a future crossing at this location, from which future funding can be considered for actual detailed design and construction of the crossing. In addition to engaging industry professionals, stakeholders representing the Provincial Park and the adjoining business are also being asked to participate in the program.

In discussions with Dr. Jay Doering, Head of the Department of Civil Engineering, John Angus, Chair of Public Works Committee, and City administrative staff, there was concurrence that to encourage the best design solution in terms of innovation, cost, and providing a crossing appropriate for the site and use, a design competition with cash prizes be recommended for consideration. It is recommended that the City provide $1000.00 for cash prizes for the 2002 competition, with the Chair of the Public Works Committee being a judge on the selection committee.

The Financial Impact Statement is outlined on Attachment A".

Report of the Standing Policy Committee on Public Works dated September 10, 2002

The Standing Policy Committee on Public Works recommends:

I. That the City of Winnipeg enter into a four-year partnership with the University of Manitoba Faculty of Engineering in delivery of the Capstone Design Course.

II. That the Standing Policy Committee on Public Works support a design competition with cash prizes from the City totalling $1000.00 for the fall 2002 session Capstone Design project - a pedestrian crossing of the La Salle River in the vicinity of the Ruines Du Monastere.

Attachment "A" referred to in Clause 7 of the Report of the Standing Policy Committee on Public Works dated September 10, 2002

Financial Impact Statement **Date:** **September 3, 2002**

Project Name: **First Year of Program** **2002**

UNIVERSITY OF MANITOBA - FACULTY OF ENGINEERING CAPSTONE DESIGN PROJECT

	2002	2003	2004	2005	2006
Capital					
Capital Expenditures Required					
Less: Existing Budgeted Costs					
Additional Capital Budget Required	$ -	$ -	$ -	$ -	$ -
Funding Sources:					
Debt - Internal					
Debt - External					
Grants (Enter Description Here)					
Reserves, Equity, Surplus					
Other - Enter Description Here					
Total Funding	$ -	$ -	$ -	$ -	$ -
Total Additional Capital Budget Required	$ -				
Total Additional Debt Required	$ -				
Current Expenditures/Revenues					
Direct Costs	$ 1,000				
Less: Incremental Revenue/Recovery					
Net Cost/(Benefit)	$ 1,000	$ -	$ -	$ -	$ -
Less: Existing Budget Amounts	1,000				
Net Budget Adjustment Required	$ -	$ -	$ -	$ -	$ -

Additional Comments:

Original signed by D. Stewart, C.A.
Manager of Finance & Administration

Approved by Divisional Accountant Trainee: X