

REGIONAL MUNICIPALITY OF OTTAWA-CARLETON  
MUNICIPALITÉ RÉGIONALE D'OTTAWA-CARLETON

REPORT  
RAPPORT

---

Our File/N/Réf. Your File/V/Réf.	<b>25 RS 220-29</b>
DATE	12 June 1997
TO/DEST.	Co-ordinator Corporate Services and Economic Development Committee
FROM/EXP.	Environment and Transportation Commissioner
SUBJECT/OBJET	<b>MACKENZIE KING BRIDGE REHABILITATION ENGINEERING SERVICES: TESTING AND GEOTECHNICAL</b>

---

### **DEPARTMENTAL RECOMMENDATIONS**

**That the Corporate Services and Economic Development Committee approve an extension in engineering services for the Mackenzie King Bridge Rehabilitation contract as follows:**

- 1. An increase in services being provided by Trow Consulting Engineers Limited, Ottawa, for the provision of specialist geotechnical engineering services relating to field inspection and engineering analysis of the bridge foundations in the amount of \$15,000 for a total contract provision of \$40,000, including GST;**
- 2. An increase in services being provided by Jacques Whitford Limited, Ottawa, for the provision of testing and monitoring relating to structural steel welding, fabrication and erection, for painting inspection and for materials analysis in the amount of \$40,000 for a total contract provision of \$131,050, including GST.**

### **BACKGROUND**

Construction work on Contract 95-500, Mackenzie King Bridge Rehabilitation has been underway since March 1996. The bridge was assumed by the Regional Municipality of Ottawa-Carleton as part of the Federal Bridges Transfer Agreement.

The firm of Trow Consulting Engineers Limited was retained to provide specialist geotechnical engineering services related to the foundation components of the bridge structure. The firm of Jacques Whitford Limited was retained to provide specialist engineering services related to testing and monitoring for assurance of quality control associated with retrofitting of the existing structural steel work and installation of new structural steel, painting operations and materials analysis and review.

## DISCUSSION

The scope of services required from Trow Consulting Engineers Limited increased due to site conditions being different than assumed during the design stage. Piling for the earthquake-resistant strengthening components required additional investigation and quality assurance measures due to variations in the subsurface rock profile indicating a ledge traversing the area in question. Furthermore, the rock quality was lower than expected necessitating that additional piling work be done to ensure it will perform to the required levels.

The scope of services required from Jacques Whitford Limited increased primarily due to the existing structural steel being more deteriorated than originally anticipated. This necessitated that additional structural steel repairs and painting preparatory work was required. Furthermore, additional inspections were required due to welding difficulties experienced by the Contractor which necessitated that an increased level of inspection and testing be carried out for quality assurance. In addition, the deteriorated steel required additional surface preparation requiring an increased level of painting inspection for quality assurance and to assess Contractor claims.

## CONSULTATION

The public consultation process is not applicable.

## EXPENDITURE JUSTIFICATION

In order to assure quality control, to safeguard the workers and the public during the field operations and to provide extended service life for the structure, a high level of quality assurance is necessary. These testing and inspection services are essential to provide the necessary quality assurance on the Contractor's operations and to assure that value is received for the significant public investment in the rehabilitation of this structure.

FINANCIAL STATEMENT

	\$
Approved Budget to Date	26,095,000
Total Paid & Committed	<u>(21,685,253)</u>
Balance Available	4,409,747
THIS REQUEST	<u>(55,000)</u>
Balance Remaining	<u>4,354,747</u>

Funds have been provided in the 1996 Capital Budget, Account No. 912-31031, Mackenzie King Bridge Complex (Reference page 153).

Encumbrance No. CA 9142 - Trow Consulting Engineers Limited - 15,000

Encumbrance No. CA 9143 - Jacques Whitford Limited - 40,000

*Approved by  
P. McNally on behalf of  
M.J.E. Sheflin, P. Eng.*

BMM/cp

FINANCE DEPARTMENT COMMENT

Funds are available as indicated.

*Approved by T. Fedec  
on behalf of the Finance Commissioner*