

ITEM 12
MANAGER'S REPORT NO. 29
COUNCIL MEETING 86/04/28

RE: BYRNE CREEK RELOCATION PROJECT - CONSTRUCTION ADMINISTRATION

MUNICIPAL MANAGER'S RECOMMENDATION:

1. THAT the recommendation of the Director Engineering be adopted.

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TO: MUNICIPAL MANAGER 1986 04 22
FROM: DIRECTOR ENGINEERING
SUBJECT: BYRNE CREEK RELOCATION PROJECT
- CONSTRUCTION ADMINISTRATION

RECOMMENDATION:

THAT Kerr Wood Leidal Associates Ltd. be retained to provide engineering consulting services for construction administration for the Byrne Creek Relocation Project.

R E P O R T

Preamble:

Council at its meeting of 1983 April 11 approved, in principle, the relocation of Byrne Creek and further authorized the Director Engineering to proceed with the preparation of final engineering design drawings. Associated Engineering Services Ltd. (A.E.S.L.) was retained to prepare these design drawings. The design of the creek relocation project is now complete with the exception of the final configuration of the outfall to the Fraser River. The final alignment of the outfall is still subject to a decision of the Greater Vancouver Sewerage and Drainage District regarding elevation adjustments to its trunk sewer lines.

Council at its April 1983 meeting also authorized negotiations for the acquisition of the private lands required for the creek relocation. Council has subsequently approved the acquisition of all properties necessary for this project.

The current estimated cost of construction is \$2.5 million which, with an additional allowance of 6% (\$150,000) for engineering services during construction, brings the estimated total cost of construction to \$2.65 million. Approval of the 1986 Capital Budget puts sufficient funding in place to finance these costs. Implementation of this project is intended to commence in the next month or two and it is necessary for the Corporation to retain a professional engineering consultant to provide services of construction administration. More specifically, the consulting services which we require include contract administration, survey for construction layout, resident inspection and general engineering supervision. Engineering proposals were invited and have been received from three professional consulting engineers.

Engineering Proposals:

The three companies invited to propose on the project are all well established firms having qualified engineers and technicians on staff. The Companies were:

Kerr Wood Leidal Associates Ltd.,
Associated Engineering (B.C.) Ltd.,
McElhanney Engineering Services Ltd.

(Cont'd.)

These three Companies were selected because each is familiar with storm drainage management in the Big Bend area and more specifically each Company has had an engineering involvement with Byrne Creek. The Consultants were asked to provide details of their experience and expertise related to this type of project together with details of their intended method of approach to the project.

This project will be undertaken in an area which has sensitive peat soils and will require the use of specialized geotechnical techniques. Hardy Associates (1978) Ltd. served in the role of geotechnical subconsultant to A.E.S.L. in the design phase of the project and in the interests of project continuity it is intended that Hardy Associates be retained as our geotechnical subconsultant on the construction phase.

Proposal Review:

The submitted proposals were reviewed by four senior members of the Engineering Department. This initial review established Kerr Wood Leidal and Associated Engineering as the two leading candidates. Both Companies were subsequently interviewed by staff. The interview assessment process was based on several predetermined factors which included, in general terms, an evaluation of the consultant's Company and staff experience and expertise, understanding of the project, proposed methodology, scheduling, and total cost implications. It was this process which was successfully utilized in the selection of a Consultant for construction supervision of the L.I.P. program. The process permits an assessment of each of the factors on a scored points basis and provides a quantitative method for proposal evaluation.

Consultant Selection:

Evaluation of the submitted proposals concluded that the proposal from Kerr Wood Leidal Associates Ltd. (K.W.L.) most closely met the needs of the Corporation. K.W.L. have extensive experience with storm drainage management programs and river diversions both locally and throughout B.C. The Byrne Creek Relocation Project must be undertaken in close cooperation with Federal and Provincial Fisheries staff; K.W.L. were instrumental in preparing the guide booklet which is used for stream enhancement programs. None of the consultants submitted a fixed maximum fee primarily because it is unrealistic to do so given the number of potential variables; however, K.W.L. submitted the lowest hourly rate schedule which could be reasonably expected to result in the lowest overall cost for engineering.

It is therefore recommended that the firm of Kerr Wood Leidal Associates Ltd. be retained to perform the services of construction administration. The Purchasing Agent concurs with this recommendation.

The Consultant and Corporation will enter into an Engineering Agreement which has the Corporation's Terms of Reference and the Consultant's Engineering Proposal as integral parts.

Costs of Engineering:

Council has been previously advised that it is neither practicable nor advisable to predetermine a fixed maximum cost figure for engineering work of this particular type because of the many variables affecting final cost of engineering. Also, this particular project has peculiar aspects of soils instability and high water table, both of which can materially affect engineering costs.

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Notwithstanding the foregoing comments, your Director Engineering is of the opinion that the budget figure of \$150,000 for total engineering costs is a realistic one for the complete services of both Kerr Wood Leidal Associates Ltd. and Hardy Associates (1978) Ltd.

Sufficient funds are available in the Capital Budget for the total of both construction and engineering costs.

WCS:cf

cc: () Purchasing Agent
() Director Finance

E.E. Olson
DIRECTOR ENGINEERING

