

ITEM 17
MANAGER'S REPORT NO. 71
COUNCIL MEETING 1979 10 22

RE: ENGINEERING SERVICES FOR THE DESIGN OF BOUNDARY ROAD IMPROVEMENTS
FRONTAGE ROAD AND NOISE ABATEMENT BERM

Following is a report from the Municipal Engineer on engineering proposals for services relative to Boundary Road improvements.

We have been assured by one of the principals for Vector Engineering Services Ltd. that his firm understands that the scope of the work to be carried out includes noise abatement. Further to this, he conveyed his assurance that his subcontractor has the necessary resources at his disposal to satisfactorily complete this aspect of the job.

Copies of the three proposals are available for review by Council in the Manager's office.

RECOMMENDATION:

1. THAT the recommendation of the Municipal Engineer be adopted.

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TO: MUNICIPAL MANAGER 79 10 17
FROM: MUNICIPAL ENGINEER
SUBJECT: ENGINEERING SERVICES FOR THE DESIGN OF BOUNDARY
ROAD IMPROVEMENTS - FRONTAGE ROAD AND NOISE ABATE-
MENT BERM

RECOMMENDATION :

1. THAT the Corporation of Burnaby enter into an Engineering Agreement with Vector Engineering Services Ltd. to provide the engineering services as outlined in the Municipal Engineer's terms of reference dated 79 09 28 and in accordance with the consultant's proposal dated 79 10 12 for an upset fee of \$13,200.00 excluding disbursements.

REPORT

Council will recall that the City of Vancouver has agreed to undertake the design and contract administration for Boundary Road improvements, however, they have explicitly excluded any design or contract administration and supervision for the frontage road and noise abatement berm on the east side of Boundary Road.

Accordingly, your Municipal Engineer sent the attached terms of reference to three reputable engineering consultants, inviting them to submit proposals for their engineering services to complete the design and cost estimate for the frontage road including the noise abatement berm. Proposals have now been received from each of the consultants and a brief summary of their proposal and fee structure is as follows:

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1. Vector Engineering Services Ltd.

This proposal outlines in detail the various facets of this project including road design, drainage design, ornamental street lighting design, noise abatement design, fence design, planting scheme, co-ordination with the City of Vancouver design and a cost estimate of each. It also allows for the review of alternate noise abatement schemes. The total upset engineering fees for this proposal is \$13,200.00 excluding disbursements.

2. Aplin & Martin Engineering Ltd.

This proposal separates the project into two main parts, namely, surveying and design for roadworks, sidewalks, street lights and drainage to be done by Aplin & Martin staff in close co-ordination with the City of Vancouver and the design and preparation of drawings for the noise abatement berm, including details of fencing and landscaping to be done by the following sub-consultants.

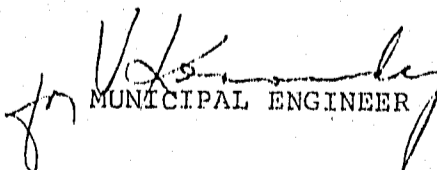
- a. Landscaping by Torrence-Vagelatos
- b. Acoustical design by Brown, Strachan & Associates

With regard to the latter part of the project, the sub-consultants will review the present berm/fence preliminary design with other alternatives and will insure that it satisfies the recognized H.U.D. requirements for noise pollution. The total estimated fees for this proposal is \$18,400.00.

3. Robert F. Binnie

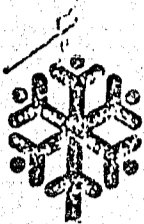
This proposal states that they are familiar with our design requirements and are prepared to complete the design assignment for a maximum of \$4,345.00 excluding disbursements. Because of the relative briefness of this proposal further information was sought. The Engineering Department was verbally advised by the principal of this consulting firm that they had not given sufficient recognition to the scope of the noise abatement design and accordingly had overlooked the inclusion of some facets of the noise abatement design.

Having carefully reviewed each of these proposals, it is my conclusion that the proposal submitted by Vector Engineering Services Ltd. is the most complete proposal with the best fee structure and, therefore, it is my recommendation that the Corporation of Burnaby enter into an Engineering Agreement with Vector Engineering Services Ltd. to provide the necessary engineering services as outlined in the Municipal Engineer's terms of reference dated 79 09 28 and in accordance with the consultant's proposal dated 79 10 12 for an upset fee of \$13,200.00 excluding disbursements.


MUNICIPAL ENGINEER

VNW:sp

cc: Director of Planning
Parks & Recreation Administrator
Municipal Treasurer



THE CORPORATION
OF THE DISTRICT OF
BURNABY

4949 Canada Way, Burnaby, B.C. V5G 1M2
Engineering Department

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Telephone (604) 294-7460

79 09 28

Vector Engineering Services Ltd.
3375 Norland Avenue
Burnaby, B. C.
V5B 3A9

Attn: Mr. R. Margetson, C.E.T.

Dear Sir:

RE: BOUNDARY ROAD IMPROVEMENTS -
FRONTAGE ROAD & NOISE ABATEMENT BERM

In 1980 the City of Vancouver and the Corporation of Burnaby will advance the construction of improvements to Boundary Road between Imperial Street and Marine Way. Although the City of Vancouver has agreed to design and administer the construction contract for the main improvement, they are not prepared to undertake the design of a frontage road and noise abatement berm on the east side of Boundary Road.

I would, therefore, request that you submit a proposal for your engineering services to complete, to Corporation of Burnaby standards and specifications, allfield survey, design and estimating for the frontage road, the lane tie-ins and all other associated improvements such as drainage, street lighting, pole relocation, etc.

The general layout and dimensions for the roadway and the berm are shown on the enclosed plan from the City of Vancouver and the typical cross-section prepared by Burnaby's Engineering Department. In addition to the information contained on the two above mentioned plans, the consultant will be responsible for the design of a 1.5 m abutting sidewalk, ornamental street lighting, drainage facilities as required, utility pole relocations as required and any proposed property acquisition truncations as may be necessary to provide adequate turning radii. The consultant will also be responsible to

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complete his design in metric format using the same scales, datum and chainages as are presently being used by the City of Vancouver design. The consultant will also be responsible for providing his own horizontal and vertical survey control. The Corporation of Burnaby will provide existing underground utilities data, strip maps and contours as they exist in our records, however, the onus of proof will be the responsibility of the design consultant.


With respect to the design of the noise abatement berm, the design consultant should consider the retention of a sub-consultant specializing in noise attenuation. The typical cross-section referred to earlier indicates some basic proportions for a noise attenuation barrier which should be reviewed and either confirmed or have an alternate design submitted for our consideration. In conjunction with the design of this facility, I would request that the consultant co-ordinate his design with a similar noise abatement berm currently being designed by the City of Vancouver on the west side of Boundary Road.

With regard to the scope of this project, I would re-confirm my earlier statement that this is strictly a design and estimate project in that the construction will be combined with the construction of the major roadway which will be administered and supervised by the City of Vancouver.

In order that we may have sufficient time to present a completed design to the residents of the area and allow for any possible modifications as a result of such presentation and still be ready for construction in early 1980, I would request receipt of your proposal by no later than 79 10 12. This project will be done under a standard Corporation of Burnaby Engineering Agreement.

Yours truly,

E. E. Olson, P. Eng.,
MUNICIPAL ENGINEER


by: V. N. Wiebe, P. Eng.,
DESIGN ENGINEER

VNW:sp
Encl.

cc: (1) Design Engineer
() City of Vancouver Engineering
Attn: Mr. E. A. West, P. Eng.