

12. Re: Design of Major Roads
a) Broadway from Gaglardi Way to North Road
b) Hastings Extension to Centennial Way

The 1972 Capital Improvement Program makes provision for acquisition of property required for the major route proposed to connect Coquitlam and northeast Burnaby along the southerly slope of Burnaby Mountain from Gaglardi Way to North Road. The Engineer has been unable to fit the requirement for survey, draughting and design for this major route into existing work schedules, and therefore has requested proposals from consultants for this service. The design is required in order to determine with some degree of certainty the actual right-of-way requirements.

Very much the same situation pertains to the extension of Hastings Street to Centennial Way and Curtis. The majority of the proposed route is through Municipally-owned property, but there are a few private properties which we will have to reckon with. It is therefore essential for us to also have this route established with some considerable degree of certainty.

Regardless of our position with respect to various major roads and their relationship to possible city status, the Engineer believes that it is essential to at least obtain the design so that meaningful discussions with the Department of Highways can be held when the time comes. In any event, it is most probable that Burnaby would be responsible for the necessary property acquisition at least, inasmuch as this is current policy enunciated by the Department of Highways in Burnaby's case. With reference to the first item (Gaglardi Way to North Road), provision is made in the Capital Improvement Program document for construction of this link in 1973.

Provision for the use of consultants for major roads design has been made both in the recast budget for 1972 and in the provisional budget for 1973. Council will recall that we engaged a consultant to design the Percival extension through Oakalla to Gilley.

Terms of reference and sketches are attached.

The following three consulting firms have submitted proposals to design the subject roads:

- A. Broadway from Gaglardi Way to North Road
1. Swan Wooster Engineering Co. Ltd. - A general proposal outlining experience and personnel with no estimate of cost.
 2. Associated Engineering Services Ltd. - A proposal to undertake the work as outlined in the terms of reference with fees to be in accordance with the "Scale of Minimum Fees" of the Association of Professional Engineers of British Columbia (May 1972). Disbursements and cost of soil sub-consulting to be charged separately. The estimate of cost given as being between \$39,300 and \$54,300 with the above-mentioned disbursements and cost of soil consulting over and above these estimates.
 3. Robert F. Binnie Ltd. - A proposal to undertake the work within the terms of reference including a preliminary route study with fee payment to be based on the "Scale of Minimum Fees" of the Association of Professional Engineers of British Columbia (May 1972), but not to exceed \$50,000 except for disbursements as per Section V and any cost of soil sub-consulting which exceeds \$2000 which will be paid for separately.

ITEM 12

MANAGER'S REPORT NO. 9

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12. Re: Design of Major Roads
a) Broadway from Gagliardi Way to North Road
b) Hastings Extension to Centennial Way - Cont'd.

B. Hastings Extension to Centennial Way

1. Swan Wooster Engineering Co. Ltd. - A general proposal outlining experience and personnel with no estimate of cost.
2. Associated Engineering Services Ltd. - A proposal to undertake the work with payment at payroll cost plus a percentage in accordance with "Scale of Minimum Fees" as published by the Association of Professional Engineers of British Columbia (May 1972), but not to exceed \$7900.00, excluding soil sub-consulting and disbursement as outlined in Section V of the Association of Professional Engineers of British Columbia publication. Also the maximum is conditional on no additional field survey work being required.
3. Robert F. Binnie Ltd. - A proposal to undertake the work within the terms of reference as outlined above in B. 2. for Associated Engineering Services Ltd. with the maximum fee not to exceed \$6500.00, but excluding soil sub-consultant cost disbursements as per Section V and providing no additional field survey is required.

The Hastings undertaking is to be completed by April 30, 1973, and the Broadway undertaking by June 30, 1973.

RECOMMENDATIONS:

THAT the proposal to design Broadway from Gagliardi Way to North Road as outlined in A. 3 above from Robert F. Binnie Limited be accepted; and

THAT the proposal to design Hastings extension to Centennial Way as outlined in B. 3 above from Robert F. Binnie Limited be accepted.

ITEM 12

MANAGER'S REPORT NO. 9

COUNCIL MEETING Feb. 5/73

TERMS OF REFERENCE
ENGINEERING DESIGN OF BROADWAY DIVERSION
FROM GAGLARDI WAY TO NORTH ROAD

1. Preliminary study to consider tentative route as shown on attached sketch and investigate alternative routes as far north as the existing R.O.W. of Broadway. Preliminary studies to include a level crossing at Gagliardi and connection west of Gagliardi to existing Broadway R.O.W. to Production Way.
2. After finalization of the route to complete all field survey, drafting and office work to design the Broadway diversion in detail from Gagliardi to North Road,
 - (a) Design for two 23' roadways with 14' median, curb and gutters and abutting walks;
 - (b) Storm sewer and culverts;
 - (c) Design and write specifications for a structure across Stoney Creek;
 - (d) Cuts and fills sloped $1\frac{1}{2} : 1$ with a grade width of 90' at top of fills and bottom of cuts;
 - (e) Determine R.O.W. required for construction on chosen alignment;
 - (f) Design gradients of not over $\pm 7\%$;
 - (g) Roadways may be benched if necessary to a difference of 5' in elevation across the median;
 - (h) Pavement and base design including soil study if any unstable ground is anticipated;
 - (i) Road design to be in accordance with Corporation specifications and Engineering Procedures.
3. Take off quantities in detail for preparation of "Schedule of quantities and prices" for tender call for roadwork and for construction of the structure at Stoney Creek.
4. An Engineering Agreement will be entered into covering this work.
5. Design to be completed by ~~31~~^{30 June} May, 1973.

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MANAGER'S REPORT NO. 9
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TERMS OF REFERENCE
FOR COMPLETION OF ENGINEERING DESIGN OF
HASTINGS/CURTIS DIVERSION FROM DUTHIE
TO CENTENNIAL WAY

1. Complete the design for a 46' street with curb and gutters, abutting walks, sewers and culverts from field information and plans available as already prepared by the Corporation.
2. With cuts and fills $1\frac{1}{2}:1$, confirm R.O.W. requirements as prepared tentatively by the Corporation.
3. Design maximum gradient $\pm 7\%$.
4. Pavement and base design including soil report if an unstable base is anticipated.
5. Design to be in accordance with Corporation Specifications and engineering procedures.
6. An engineering agreement will be entered into covering the work.
7. Design to be completed by ^{30 April}~~31 March~~, 1973.
8. Take off quantities in detail for preparation of "Schedule of Quantities and Prices" for tender call.

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HASTINGS EXTENSION
 TO CENTENNIAL WAY.

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