

MINUTES OF MEETING NO. 82-1 OF THE COUNCIL COMMITTEE ON DRAINAGE IMPROVEMENTS held at 1200h, 1982 01 20 in the West Committee Room, Municipal Hall, 1111 Brunette Avenue.

PRESENT: Alderman L. Sekora, Chairman
Alderman W. Henke,
Alderman L. Garrison
R. A. LeClair, Municipal Manager
D. M. Buchanan, Municipal Planner
N. W. Nyberg, Municipal Engineer
V. A. Dong, Municipal Treasurer
A. J. Edwards, Assistant Engineer
D. A. Kersey, Snr. Project Technologist
J. Meisl, Project Technologist.

I. MEETING CALLED TO ORDER

1. The Chairman called the meeting to order at 1209h.

II. DRAINAGE PROGRAM PRESENTATION

2. A presentation on proposed drainage programs was presented by Assistant Engineer, A. J. Edwards. The objective of the presentation was to show the type, number, scope, approximate cost and timing of drainage construction projects required to implement program goals. The three programs were entitled:
 - Flooding and Erosion Control
 - Ditch Elimination SW Coquitlam
 - Town Centre Drainage Trunk System
3. The presentation concluded with distribution of preliminary capital budget schedules for each of the three programs. These schedules are attached to these minutes.

III. FINANCIAL PLANNING

4. The conclusions of the previous drainage committee were reviewed by R. A. LeClair. It was originally intended to finance the ditch elimination program from interest accruing to the Land Sale Reserve Fund. To support an expenditure of \$2 million requires a balance of \$18 million to \$20 million in the fund. The existing Land Sale Reserve Fund approaches \$5 million, after disbursements are made to implement recreation improvements anticipated in the Parks and Recreation referendum.

5. The discussion turned on the rate of accumulation of monies in the Land Sale Reserve Fund, and how to achieve the balance which would accrue \$2 million per annum. The choice lay between implementing short-term improvements with the monies deposited in the Fund; or allowing the Fund to grow to the necessary level. It was suggested that a formal policy be adopted by Council, possibly leading to a separate reserve fund dedicated to drainage improvement.
6. The Chairman discussed the existing real estate market, pointing out the necessity to gauge the most appropriate time to sell commercial, industrial and residential land if a 'heritage fund' was to be created.
7. The Manager recommended to the Committee that pressure be applied to the Provincial Government to establish a cost assistance program similar to that existing for water, sewer, and roadway expenditures.

IV. DISTRICT PROPERTY INVENTORY

8. The Planning Director made a brief presentation regarding the twenty-seven District parcels available for sale, and made reference to a numbered index map. Some areas are intended for residential use, and at least one is subject to adverse soil conditions. Two District parcels are required for disposal of mineral fill; areas 23 and 25 have potential servicing problems.
9. Alderman Garrison called attention to the potential in parcel 9 and suggested that a "market profile" be prepared to optimize the returns from various categories of land.
10. An engineering appraisal has been commissioned, with preliminary results on some parcels available by 1982 02 01. The pre-design report will establish the servicing methods and costs in sufficient detail to enable a property appraiser to estimate the worth of each parcel.
11. The Planning Director suggested that lands in the Town Centre area might yield the District a sum in the order of \$6 million to \$8 million. However, the next step, following predesign, was to commission appraisers to determine a marketing strategy based on realizing the greatest value from the land. The Drainage Committee, on receipt of their recommendations, could then establish priorities for land sale.

12. The Chairman noted the possibility of further draws on the Land Sale Reserve Fund, possibly totalling \$1.5 million, to complete the recreation program. The Manager noted that the resulting balance of about \$3.5 million would only return \$450,000 to the drainage fund, and that interest rates were liable to be variable.
13. The Committee discussed the possibility of establishing an annual mill rate allotment towards implementing the program. A 1982 mill is expected to return about \$300,000 in taxes, hence a one-half mill levy would sustain the proposed program for drainage and erosion control.

V. RECOMMENDATIONS

14. The Planning Director explained the need for a real estate appraisal of District lands.
15. Moved by Alderman Garrison, Seconded by Alderman Henke:
That Council adopt the policy of financing the Flooding and Erosion Control program to limit of \$150,000 per annum (1982 dollars).

CARRIED
16. Moved by Alderman Garrison, Seconded by Alderman Sekora:
That Council instruct staff to obtain real estate appraisals to determine price and market strategy for District lands, at a cost to be determined by Administration.

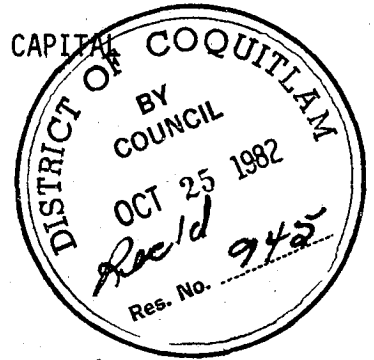
CARRIED
17. The Chairman directed that the drainage briefing by Engineering Staff be presented to Council at its meeting of February 1, 1982.
18. There being no further business the Chairman adjourned the meeting at 1300h.

MINUTES APPROVED _____

SECRETARY Neil Nyberg

MINUTES OF A SPECIAL COUNCIL COMMITTEE MEETING ON DRAINAGE CAPITAL
CONSTRUCTION: OCTOBER 18, 1982: COUNCIL COMMITTEE ROOM

PRESENT: Alderman L. Sekora, Chairman
Alderman W. Henke
Alderman L. Garrison



MEETING CONVENED

The special Council Committee on Drainage Capital Construction was held at the call of the Chairman to examine alternatives for the Town Centre Drainage system; to review the flooding control and ditch elimination programs, and to prepare policy recommendations for Council. District staff were present to assist the Committee: V. Dong, Municipal Treasurer; D. Buchanan, Director of Planning; H. Castillou, Municipal Solicitor; and N. Nyberg, Municipal Engineer.

The Chairman called the meeting to order at 1215h.

AGENDA

The Committee reviewed the Municipal Manager's report of 1982 10 18, which stressed the need for establishing an endowment fund of a magnitude which would allow the drainage program to proceed, while still recognizing other Council priorities.

The Municipal Engineer presented the recommendations of the report on the Town Centre Drainage Implementation Plan.

DISCUSSION

The Chairman reviewed the history of drainage programs in Coquitlam and requested the committee to advocate a plan of specific action to Council. The preferred level for an endowment fund, established under Section 383 of the Municipal Act would be in the order of \$4 million. This amount would leave a balance approaching \$1 million in the Land Sale Reserve Fund.

The Committee discussed the potential benefits and risks of entering a Section 286 agreement with the Ministry of Lands, Parks and Housing. One advantage of this financing method is the opportunity to review the program at the end of a five year term and, if necessary, roll-over or extend the agreement for a further term.

The advantages of the agreement were:

- that the 'front-end financing' for construction is assured;
- that economics of scale and competitive bidding can be explored if the work is initiated soon;
- that there is an opportunity to roll-over the agreement after the first five years.

The disadvantages of the agreement lies in uncertainty:

- the amount of an annual repayment can vary because it comprises the sum of all amounts collected from Land Owners plus an annual increment: (the repayment of the loan could proceed at a faster or slower rate than anticipated); and
- the obligation at the end of the agreement, the Municipality must pay to the Crown all the funds advanced under the agreement.

The Committee discussed the annual level of funding necessary to progressively reduce outstanding drainage and erosion requirements. The Municipal Engineer noted that the Committee had previously established a suggested level of \$150,000 for 1982. The Committee agreed with the Manager's recommendation that \$175,000 would be more suitable for 1983.

RECOMMENDATION

MOVED BY ALD. GARRISON
SECONDED BY ALD. HENKE:

That Council establish a Drainage Capital Reserve Fund in the amount of \$4,000,000, such amount to be drawn from the Land Sale Reserve Fund; and authorize the Municipal Treasurer to prepare the necessary documentation;

that the annual interest derived from the Drainage Capital Reserve Fund be withdrawn on an annual basis to fund progressive enclosure and improvement of open ditches and watercourses in existing residential areas in the District of Coquitlam; and authorize the Municipal Treasurer to prepare such by-laws as are necessary, from time-to-time, to withdraw such interest;

that the Municipal Manager be authorized to commence negotiations with the Ministry of Lands, Parks and Housing to develop a draft agreement for providing a comprehensive municipal trunk drainage system for the Town Centre and under Section 286 of the Municipal Act; and

that the Municipal Engineer be authorized to prepare a pre-design plan of the Town Centre Drainage Program at a cost not to exceed \$75,000; and authorize the Municipal Treasurer to prepare a by-law to withdraw the sum from the Development Cost Charge Reserve for Drainage.

CARRIED

ADJOURNMENT

There being no further business the Chairman called for a motion of adjournment at 1300h.

MOVED, SECONDED AND
CARRIED

L. Sekora,
Chairman

N. W. Nyberg, P. Eng.
Secretary

To: Special Council Committee
on Drainage Capital Construction
District of Coquitlam

Alderman L. Sekora, Chairman
Alderman W. Henke
Alderman L. Garrison

Copies to: D.M. Buchanan, Planning Director
V.A. Dong, Municipal Treasurer
N. Nyberg, Municipal Engineer
H.G. Castillou, Municipal Solicitor
All Members of Council - for information

At their September 17th, 1982 meeting, the Special Council Committee on Drainage Capital Construction (S.D.C.) embraced, subject to certain reservations, that a three pronged attack on Coquitlam's outstanding drainage needs had considerable merit and provided some flexibility so as to minimize the worst effects of future economic downturn but with built-in prospects for accelerating the attack on remaining work during periods of economic upturn. The three-faceted attack consisted of longer term solutions for built-up backlogs which occurred over many years and a fast assault in the direction of the developing Town Centre to prevent further backlog build-up.

1. Meet the backlog of flooding and erosion control projects by appropriating substantial sums from annual revenues to complete works in priority order already received by Council. A ten year annual program of approximately \$175,000. (1982 dollars) would effectively eliminate the worst flooding and erosion projects now identified.
2. Set up a ditch elimination program to be met from the interest proceeds earned on endowment funds proposed to be created from land sale proceeds appropriated and reserved for use only for drainage capital construction by Council bylaw. Such a measure requires approval of the Minister of Municipal Affairs. Expenditures from the fund each year would require both the approval of Council and the Minister in that order and so would allow for desired flexibility to meet or recognize the then prevailing economic climates. Because of the large existing inventory of open ditches and because of the vagaries of future economic climates, it is impossible to establish the estimated number of years it would take to completely eliminate existing open ditches. Meanwhile, it is anticipated that Council's policy of recent years, to require developers to provide either funding for or the construction of drainage facilities in developing or redevelopment areas, would persist.
3. Construct the Town Centre Drainage Trunk System and finance the same by way of long term loan to facilitate new development rather than, as present, to wait for advance accumulation collection of Development Cost Charges (D.C.C.'s) - as recently complained about by developers in the Town Centre Area. To avoid certain, almost sudden, and even debt repayment schedules

that may not be related to rates of development and recovery by way of D.C.C.'s it was proposed that negotiations for financing by way of a Section 286 Loan Agreement with the Province be undertaken. Debt repayment under such an agreement could be related to receipt of D.C.C.'s as development occurred for an initial 5 year period and possibly renewed for a further period recognizing that at some time in the future the unpaid debt would then fall due and have to be refinanced in some terminal fashion. Such an agreement in addition to flexible repayment schedules would also generally benefit from favourable rates of interest that are available to the Province.

Town Centre Drainage

Staff have further explored the feasibility of financing by way of an agreement under provisions of Section 286 of the Municipal Act. This was done through discussion with Mr. D. Zadak, P. Eng., of the Ministry of Lands, Parks and Housing. That discussion confirmed that substantial planning must precede entering an agreement supporting a long term loan to avoid a number of major possible difficulties later. In short, much more detailed engineering must be carried out in conjunction with requirements of environmental and fishery authorities in order that estimated costs of construction be well based and fully documented.

Attached hereto is a report memorandum dated 1982 10 14 which gives background analysis, conclusions and recommendations related to a Town Centre Drainage Implementation Plan. I support the recommendations and submit same for the favourable consideration of the Committee for onward transmittal to Council for action.

I would note, if approved, recommendation 4.01 will serve to authorize a first step, i.e. to prepare a by-law to authorize expenditure from the Development Cost Charge Reserve. After approval by Council, the bylaw would then require approval of the Minister of Municipal Affairs as a final measure.

Flooding and Erosion Control Projects

This remains an important and manageable part of Coquitlam's overall outstanding drainage facility requirements. The Committee has acknowledged the plan basically outlined in above section numbered 1 of this report. Little more can be added except that the Committee might wish to state its conclusion in its report to Council. Council can do little more than receive the conclusion for consideration of future council since it proposes a commitment for future expenditure.

Ditch Elimination

This part of the overall drainage program is by far the most difficult of all issues. As noted previously, the backlog has built up over many years and to extinguish same quickly may well mean postponement of other needs. It would be ideal, if not really impractical to call for a firm list of all municipal needs to be listed in priority order. In the real world, priorities change.

This committee is established for the single purpose of examining ways and means of solving drainage requirements of which ditch elimination demands the greatest outlay. Eliminating ditches can be done over the long term in the manner set out in above section numbered 2. Since this committee last met, interest rates have dropped dramatically. Assuming that an endowment fund were established for financing annual ditch elimination programs from interest proceeds only, the size of annual programs would depend upon funds generated. That conclusion should be advanced to Council by this committee.

There are other needs which Council, as a whole, must address (the most recent need reviewed is the need for road reconstruction and resurfacing) and this committee may therefore wish to call for a review of priorities and request that Council set fund limits for the present, as to an amount, if any, which would be appropriate with which to set up a start of an endowment fund for ditch elimination to be financed from interest earnings thereon. Then with such resource, annual programs for ditch elimination can be worked up for consideration.

R. A. LeClair
R. A. LeClair
Municipal Manager

DISTRICT OF COQUITLAM

Inter-Office Communication

R. A. LeClair
Municipal Manager

DEPARTMENT: Administration

DATE: 1982 10 14

FROM: N. W. Nyberg
Municipal Engineer

DEPARTMENT: Engineering

YOUR FILE:

SUBJECT: TOWN CENTRE DRAINAGE IMPLEMENTATION PLAN

OUR FILE:01 03 09

1.00 BACKGROUND

- 1.01 In January 1982, our Engineering Division proposed a \$5.65 million program for a comprehensive trunk drainage for the Town Centre area, to serve an area of 265 Ha, bounded by the future David/Pathan highway to the North; Westwood Street to the East; the Barnet and Lougheed highways to the South; and Lansdowne Street to the West.
- 1.02 The original source of the plan was the 1977 Greater Vancouver Sewer and Drainage District Study Report on a Study of Drainage Alternatives for Northwest Coquitlam. This report gave the approximate size, approximate alignment and approximate current cost of several alternative piped drainage systems.
- 1.03 The District constructed the Hoy Creek Diversion to stabilize the long-term flows in Hoy Creek at the 'pre-development' level. The diversion dam on Hoy Creek allows a minimum flow of 2.84 m³/sec. (100 cfs) to run in the stream bed, and diverts up to 16.1 m³/sec. (570 cfs) to Lefarge Lake, in the event of a 100 year storm event.
- 1.04 One feature of the plan is the use of 'interceptors' to divert overland drainage flows during initial rainfalls, when runoff is assumed to carry a heavy pollution load from upland areas. These interceptors comprise 2050 m of pipeline along Scott Creek, and 2500 m of pipeline along Hoy Creek.
- 1.05 This memorandum recommends an implementation plan which recognizes the current regulatory environment, the complexity and magnitude of the construction work, and the opportunities for significant cost savings through awarding contracts during the recession.

2.00 ANALYSIS

- 2.01 In 1981 Council was made aware that very strict enforcement of Fisheries protection regulations was to be anticipated. A contractor working for the School District obliterated a small creek on the site of the Terry Fox School, and this action attracted considerable attention from all regulatory agencies, as well as the press. Consequently we recommended a comprehensive study of

2.01 cont'd...

Town Centre tributaries in order to identify appropriate water-courses, setbacks and uses.

2.02 Council authorized the "Greenstrip" or Linear Park Study of the Town Centre on December 8, 1981, and the report was presented to Council in August 1982. Key fish habitat areas were identified, and a 15 m 'leave strip' was designated for banks of creeks and tributaries. Allowances for major floods (in excess of storm sewer capacity) must be made to route excessive flows safely through developed areas. Overflow channels lining may be required at certain creek locations. The combined effects of additional creeks and tributaries, more stringent construction regulations, more complex streamflow behaviour, and additional 'leave strips' have made the construction of the interceptor portions of the Town Centre drainage project more costly and complex.

2.03 A measure of the more complex regulatory environment can be obtained from our experience with the sanitary sewer project on the west bank of Hoy Creek between Guildford Way and Walton Avenue. Between April and June 1982, the sewer alignments were changed three times by Fisheries personnel. This not only required three separate surveys in the field, but also delayed the project by three months. The Town Centre drainage proposal involves much more pipe (700 m vs 4550m) and many more crossings of fish bearing watercourses.

2.04 On Thursday, October 14 we met with D. Zadak, P.Eng. of the Ministry of Lands, Parks & Housing, to discuss aspects of Section 286 financing. Under this plan, the Municipality borrows the gross amount of the cost of the anticipated work, including engineering and project management costs. A levy is placed on each lot, payable at time of subdivision, so as to distribute the entire cost of the work over the benefitting lands. The Provincial loan is repaid in annual instalments over a fixed period of five to ten years.

2.05 Two factors emerged from our discussion with the Ministry. Firstly, that if development does not proceed at the anticipated rate, then the Municipality must either renew the agreement, or retire the debt; secondly, management of the project, the funds, the payments and the agreement is necessarily a full-time job.

3.00 CONCLUSIONS

3.01 Major developers in the Town Centre area enjoy little or no advantage from the Municipal drainage system. Without extensive pre-servicing by the Municipality, each development must be limited to 'pre-development' runoff flows, and this generally means costly on-site detention. The perception among developers is that there is no direct benefit to them for paying development cost charges.

- 3.02 Recent construction tenders have been below the Engineers' estimates owing to prevailing economic conditions. There may be significant cost savings if a large part of the system could be put to tender in short order. Unfortunately, the plans and specifications for tender call are not prepared, nor has the necessary 'pre-design' investigation been carried out. These activities are painstaking, time-consuming and expensive.
- 3.03 There are three necessary elements in any plan to provide Town Centre drainage:
- assured 'front-end' financing with minimum risk of underfunding and re-negotiations;
 - painstaking pre-investigation, pre-design and design execution, to minimize the risk of costly changes to pipe locations, and to maximize the reliability of cost estimates and time schedules; and
 - full-time supervision and management of the project by a competent professional for the full term of the job, from inception to completion.
- 3.04 Front-End Funding - The town drainage project supports residential housing development and probably qualifies for Section 286 financing. Any application to the Province must be supported by precise planning. A method of reliable cost and job control is mandatory. It is important to note that the costs of project management can be charged against the Provincial loan tendered under Section 286 of the Municipal Act.
- 3.05 Pre-Design Planning - The original 1977 study does not provide more than a fraction of the information necessary to estimate costs and time of construction. Consequently, any application to Fisheries or to the Ministry of Lands, Parks and Housing which is based on this preliminary data, is extremely risky. Careful field investigation, drawing on the previous reports, must be carried out and completed. A pre-design for a project of this magnitude might cost in the area of \$75,000, or about 1.5 percent of the currently estimated construction cost. Funding for this pre-design study would logically come from the Development Cost Charge reserve fund for the Town Centre drainage area, which now exceeds \$284,000.
- 3.06 Project Management - With the pre-design in hand, and a successful application to the Province for funding, adequate management of the final design and construction must be assured. A project of this magnitude and complexity cannot be handled by our current staff. The choice lies between hiring a well qualified individual, or a firm to act on behalf of the District in dealing with the designers and contractors. Project management fees are of course chargeable against the project.

RE: TOWN CENTRE DRAINAGE IMPLEMENTATION PLAN

1982 10 14

3.07 To illustrate the chain of decisions and possible outcomes, Appendix A shows the 'decision tree' representing the eligible choices for the Drainage Committee.

4.00 RECOMMENDATION

- 4.01 Authorize the Engineering Department to engage consultants to carry out a pre-design study of the Town Centre Drainage program, at an upset cost of \$75,000, chargeable to the existing Development Cost Charge reserve fund.
- 4.02 Explore and report on alternate project management systems for implementing the project.
- 4.03 Develop a detailed proposal and application for 286 financing, based on the pre-design study.



N. W. Nyberg, P. Eng.
Municipal Engineer

NWN/mw
Attach.



YOUR FILE

OUR FILE

MUNICIPAL ADMINISTRATORS

Dear Sir or Madam:

RE: Land Servicing (215A) Agreements
Between the Crown and Municipalities

Over the past few years this Ministry has assisted a number of municipalities throughout British Columbia with the servicing of land designed to make more land available for housing.

This assistance provided funds through short term loans to municipalities to bring essential water, sanitary sewer, storm drainage or other necessary off site services to both private and public lands to make development possible.

The program obtained its authority from the Ministry Act and Section 215A of the Municipal Act (now Section 286) which provided for funds to be supplied and services installed in a specified area under an agreement between a municipality and the Crown.

The provisions for repayment ensured that the cost of these new services was not a burden on the municipality or the existing residents. Rather, these costs were distributed amongst the land owners who benefitted by the development of the land, via the levy of a pro rata share of the servicing cost. Such cost recovery was usually at the time the development took place.

These policies have now been reviewed on the basis of our experience with them and in keeping with general government policy that requires the Ministry to ensure that all funds advanced including interest are recoverable.

This leads to the following new principles for all future land servicing agreements:

1. The Ministry will extend a revolving line of credit to a municipality for the purpose of constructing the works to be financed by the Government, on the terms and conditions set forth below:

(a) The loan will bear interest at the Bank of Canada discount rate plus one-half of one percent per annum. This rate will be adjusted quarterly on the basis of the Bank of Canada discount rate subsequently in effect from time to time on the first days of January, April, July and October while the loan remains outstanding. Interest will be calculated from the date of advancement of funds and shall accrue on the outstanding daily balance of the loan. Interest will be included as part of the cost of the works.

(b) The loan will be advanced from time to time based on construction progress claims demonstrating the value of the works in place.

(c) The loan will be repaid from development levies to be imposed on owners of real property in the specified area, and remitted quarterly, as development proceeds.

(d) The entire balance of principal and interest will be due and payable within a maximum term of ten years.

2. The Ministry's commitment to make the loan is subject to the following conditions, namely:

(a) that an enabling by-law in form satisfactory to the Province, has been approved by the Inspector of Municipalities;

(b) that Treasury Board shall have approved the amount of the loan if over \$500,000;

(c) that the works to be financed by the loan will have been specifically identified and approved by the Ministry;

(d) that any works to be financed by the municipality will have been specifically identified and approved by the Inspector of Municipalities;

(e) that the municipality shall have delivered a budget that contains at least -

(i) a summary estimate of the projected cost of the works,

(ii) a development and repayment summary that contains the following: -

- construction and completion schedules

- an estimate of the dates on which advances of the loan will be requisitioned

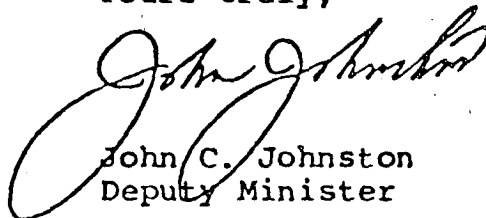
- an estimate of the amount of each advance of the loan

- the estimated annual rate of recovery of the cost of the works;

(f) that levies received will be remitted quarterly on March 31st, June 30th, September 30th and December 31st.

Ministry regional offices are being instructed in these policies and will welcome your future use of them to provide the residential lots that are needed in your community.

Yours truly,



John C. Johnston
Deputy Minister

DMR/dek

bcc: Regional Directors
Ministry of Municipal Affairs - J.P. Taylor,
Deputy Minister