September 29, 1983 Finance and Audit Committee

A meeting of the Finance and Audit Committee was held in the Committee Room of the Municipal Hall, 1111 Brunette Avenue, Coquitlam, B.C. on Thursday, September 29, 1983 at 12:00 Noon with the following persons in attendance:

Committee Members: Ald. B.T.H. Robinson, Chairman

Ald. W. Henke Ald. G. Levi

Staff:

J.L. Tonn, Municipal Manager

T. Edwards, Deputy Municipal Engineer

A. Kersey, Engineering Technician

The Municipal Manager requested a meeting of the Finance and Audit Committee for Noon on Thursday, September 29th to review the Engineering Department's 1983 Amended Budget proposal. After extensive review and comments by the Municipal Manager, it was:

MOVED BY ALD. LEVI SECONDED BY ALD. HENKE:

That the Committee recommend to Council approval of the Municipal Manager's and Municipal Engineer's recommendation authorizing the Engineering Department to proceed with those works described in Section 4.01 on page 3 of the Municipal Engineer's report dated September 28, 1983 in the total amount of \$170,880.00.

CARRIED UNANIMOUSLY

The meeting adjourned at 1:00 p.m.



Chairman

#### DISTRICT OF COQUITLAM

Inter-Office Communication

J. L. Tonn

Municipal Manager

DEPARIMENT: Administration

DATE 1983 09 28

Reil Nyberg

10:

DEPARTMENT: Engineering

YOUR FILE:

SUBJECT: 1983 BUDGET AMENDMENT PROPOSAL

OUR FILE: 05 04 01

Reference: A. Treasury memo 1755-0 d August 31, 1983

#### 1.00 BACKGROUND

1.01 The timetable for submission and approval of the Amended Budget (Ref.A) extended from September 19 to October 19.

#### 1.02 The attached workbook outlines:

- proposed changes to the operating budget (general revenue) accounts, including the Building Inspection, Transportation, Drainage, Solid Waste Collection and Engineering Services functions;
- proposed changes to the capital works (general revenue) accounts to exploit actual vs estimated tender prices, to satisfy new demands that have arisen in the past 10 months, and to modify programmes where new or improved information has been obtained;
- proposed changes to the Water Utility and Sanitary Sewer Enterprise operating and capital allocations:
- 1.03 This memorandum outlines the changes proposed, and gives reasons why expedited approval of certain capital and operating projects should be considered.

2.00	AMENDED BUDGET SUMMARY	1983 Budget	1983 <u>Amendment</u>	Change	<u> / Change</u>
	Building and Plumbing Inspec. Operations Branch	393,700	401,588	7,888	+ 2.00%
. •	(Surface & Underground Op.) Solid Waste Collec. & Disp. Capital Expenditures (Gen.Rev Water Utility Operations Water Utility Capital Sewer Enterprise Operations Sewer Enterprise Capital	1,927,734 284,922 2,831,943 41,000	2,574,022 936,726 653,008 1,885,907 217,639 2,824,865 95,029	(70,639) (53,009) (14,335) (41,827) (67,283) (7,078) 54,029	- 2.67% - 5.36% - 2.15% - 2.17% -23.61% - 0.25% +131.79%
		9,781,038	9,588,784	(192,254)	- 1.92%)

1983 09 28 Municipal Manager

Re: 1983 Budget Amendment Proposal

#### 3.00 DISCUSSION

- 3.01 Deteriorating weather affects construction cost and effectiveness. The following table shows, based on the past eleven years, how rainfall increases, in terms of
  - days available for construction; and
  - intensity of rainfall

Month	Mean Number of Hours with Measureable Precipitation		Mean Monthly Precipitation (mm)
August	49	8	56
September	. 67	11	74
October .	114	15	152
November	159	19	211
December	198	22	257

- 3.02 Existing Contractors at work on Coquitlam projects have secured the necessary bonding and insurance coverage, and are contractually bound to the District. Extension of these contracts to cover small projects has proven to be a cheap, quick, efficient method of work in previous years. Quotations would be obtained to ensure the lowest cost for the work among available contractors.
- 3.03 It is evident that funds are now available within financial sources and within government guidelines, to accomplish certain desirable projects which would otherwise be ruled out for economic reasons. Future budget constraints will likely reduce these 'discretionary' funds, and the opportunity to do the work will be lost.
- 3.04 The combination of increasingly hostile weather, accessible funding and the current availability of contractors, argues strongly for approval of certain projects in advance of the October 19 date suggested in reference A.

1983 09 28 Municipal Manager

Re: 1983 Budget Amendment Proposal

#### 4.00 RECOMMENDATIONS

4.01 That Council be requested to approve, by resolution the following amendments to the 1983 Budget.

	Account Description	Cost	Project
532312-196	Road Improvements	\$63,914	Pipeline Road reconstruction Ozada to Lincoln Ave
532314-298	Road and Lane Paving	\$ 2,150	Gale Ave east of Byng Street.
532331-115	Pedestrian Facilities	\$13,792	Dawes Hill Sidewalk, Warrick to Cape Horn.
532990-071	Miscellaneous	\$ 2,327	Safety Fence on retaining wall, lane north of Brunette
532990-072	Miscellaneous	\$11,000	Landscape modifications, Ozada Ave.
532344-139	Storm Drainage Collec.	\$ 8,250	Walton Ave ditch improvements
532344-140	Storm Drainage Collec.	\$12,155	Park Crescent ditch enclosure
532344-141	Storm Drainage Collec.	\$44,000	Roderick Ave - 600 block ditch enclosure.
532344-142	Storm Drainage Collec.	\$13,300	Hillcrest Street - subsidize , ditch enclosure north of Austin

- 4.02 That DECISION PACKAGE 2 and DECISION PACKAGE 3, comprising DESIRABLE Capital Projects but which cannot be accommodated within existing budget limits, be examined for possible funding:
  - i) from surplus funds in 1983;
  - ii) from reserve funds.

Neil Nyberg, P. Eng. Municipal Engineer

1983

AMENDED BUDGET SUBMISSION

## BUDGET AMENDMENT WORKSHEET SUMMARY BUILDING - OPERATIONS - SOLID WASTE - CAPITAL - WATER - SEWER

		<u>1</u>	983 Budget	Proposed Change	1983 Amended Budget
	G DIVISION		202 700	7 000	401 500
229200	Building Inspections	C + T-+ 1	393,700	7,888	401,588
ODEDATA	ONC DIVICION	Sub-Total	393,700	7,888	401,588
	ONS DIVISION		204 200	0	394,399
232110	Administration		394,399 1,302,019	0 5,223	1,307,242
232310 232340	Road Operation & Maintenar Storm Sewer Oper. & Mainte		212,059	(4,879)	207,180
232340	Bridge & Structures Mainte		31,144	1,297	32,441
232500	Streetlight Oper. & Maint.		447,601	(75,811)	371,790
232500	Traffic Control Oper. & Ma		183,829	(29)	183,800
232990	Boulevard Maintenance	21110.	73,610	3,560	77,170
232330	boulevard harmcendice	Sub-Total	2,644,661	(70,639)	2,574,022
SOLID W	ASTE COLLECTION	,	2,011,002	(70,005)	2,000
243100	Administration		75,249	(7,347)	67,902
243200	Solid Waste Disposal		152,223	(57,559)	94,664
243300	Solid Waste Collection		762,263	11,897	774,160
2		Sub-Total	989,735	(53,009)	936,726
CAPITAL	PROVISION				
	rtation & Drainage		667,343	(14,335)	653,008
•		Sub-Total	667,343	(14,335)	653,008
WATER U	TILITY				-
984100	Administration		493,736	15,000	508,736
984200	Purchase of Water		418,345	0	418,345
984300	Water Supply: Oper./Maint		49,599	(12,699)	36,900
984400	Transmission & Distribution	on	314,252	(24,603)	289,649
984500	Pumping	•	100,167	(12,388)	87,779
985100	Customer Billing/Collection	on	99,135	(7,137)	91,998
988100	Debt Retirement		432,500	<u> </u>	432,500
			1,907,734	(41,827)	1,865,907
	Capital Provision		284,922	(67,283)	217,639
	General Operating Provisi		20,000	(100 110	20,000
פרערה ד	NTCORDICE	Sub-Total	2,212,656	(109,110)	2,103,546
	NTERPRISE		474,414	7,896	482,310
621100	Administration		2,000	7,090 0	2,000
622100	Survey & Design Sewage Collection System	Oner /Maint	114,507	11,221	125,728
623100	Sewage Pumping System Ope		157,345	(22,573)	134,772
628400	GVSⅅ Charges	/	1,124,988	0	1,124,988
629100	Sewer Enterprise Special	Maint.	14,750	(3,622)	11,128
023100	Sewer Enterprise Special		1,888,004	(7,078)	1,880,926
	Debenture Debt		913,939	. 0	913,939
	General Operating Provision	on	30,000	0	30,000
	Capital Provision	•	41,000	54,029	95,029
		Sub-Total	2,872,943	46,951	2,919,894
		TOTAL	9,781,038	$(\overline{192,254})$	9,588,784
Capital	Only	Sub-Total	993,265	(27,589)	965,676
	0.1	C T . T	0 707 770	(1CA CCE)	0 (00 100
Operati	ons Only	Sub-Total	8,787,773	(164,665)	8,623,108
		TOTAL	9.781.038	( <u>192,254</u> )	9,588,784
		•	<del></del>	· <del></del>	

#### BUDGET AMENDMENT WORKSHEET BUILDING - OPERATIONS - SOLID WASTE

		<u>1</u>	.983 Budget	Proposed Change	1983 Amended Budget
229200	G DIVISION Building Inspections	Sub-Total	393,700 393,700	7,888 7,888	401,588 401,588
OPERATI	ONS DIVISION				
232110	Administration		394,399	0	394,399
232310	Road Operation & Maintenan	ce	1,302,019	5,223	1,307,242
232340	Storm Sewer Oper. & Maint.		212,059	(4,879)	207,180
232410	Bridge & Structures Mainte	nance	31,144	1,297	32,441
232500	Streetlight Oper. & Maint.		447,601	(75,811)	371,790
232610	Traffic Control Oper. & Ma	int.	183,829	(29)	183,800
232990	Boulevard Maintenance		73,610	3,560	77,170
* .		Sub-Total	2,644,661	(70,639)	2,574,022
SOLID W	ASTE COLLECTION				·
243100	Administration		75,249	(7,347)	67,902
243200	Solid Waste Disposal		152,223	(57,559)	94,664
243300	Solid Waste Collection		762,263	11,897	774,160
		Sub-Total	989,735	(53,009)	936,726

#### Budget Amendment Worksheet - cont'd...

BUILDING -

		or Environs -	SOCIO MASIC - MATER - SCHOOL
BUILD	ING DIVI	SION	
I-10	229200	Building Inspection	INCREASE of \$7,888 from \$393,700 to \$401,588 necessitated by increased demand in staff time (overtime) due to increased building construction in early sping.
OPERA	TIONS DI	VISION	
J-1	232110	Operations Administration	No Change
J-1	232230	Supervision	DECREASE of \$5,418 from \$138,778 to\$133,360
J-1	232311	Road Surface Maintenance	DECREASE of \$9,183 from \$169,183 to \$160,000 owing to adjusted road grading schedule.
J-1	232315	Road Reconstruction	INCREASE of \$33,633 from \$180,587 to \$214,220 increasing the scope of work on Nelson and Marmont streets to include road base reconstruction. Smith Ave and Lansdowne Drive deferred to 1984, pending utility and ditch reconstruction.
J-1	232319	Railway Crossings	DECREASE of \$7,548 from \$10,329 to \$2,781 due to lower than anticipated railroad repair activity
J-1	232331	Sidewalk Maintenance	INCREASE of \$4,393 from \$40,000 to \$44,393 due to excessive brush and plant growth adjacent to sidewalks and walkways.
J-1	232342	Culvert Maintenance	INCREASE of \$4,998 from \$22,983 to \$27,981 due to underestimate of required maintenance activity.
J-1	232346	Tree Removal	DECREASE of \$2,000 from \$9,274 to \$7,274 due to experience of fewer tree topping/removal requests than usual.
J-1	232349	Channel Maintenance	DECREASE of \$1,829 from \$33,519 to \$31,690 due to work accomplished to date.
J-1	232361	Street Cleaning	DECREASE of \$8,490 from \$78,490 to \$70,000 due to higher productivity from new sweeper.
J-1 .	232340	Storm Sewer Op./Maint.	DECREASE of \$4,879 from \$212,059 to \$207,180 due to more efficient pumping

preventative maintenance.

OPERATIONS - SOLID WASTE -

WATER

SEWER

	BUIL	DING -	OPERATIONS	- 9	SOLID WASTE	- WATER	- SEWER
J-1	232410	Bridge & S	Structures	Maint.	due to emer Dewdney Tru Westwood St Underpass m	gency repair: nk bridge ab reet bridge	\$31,144 to \$32,441 s required for utment (\$2,500) and abutment (\$2,500). educed \$954 based ate.
J	232500	Streetligh	nt Op./Main	t.	\$371,790 du	e to duplica	n \$447,601 to tion of provision January 1983.
J-1	232640	Traffic S	ignal Maint	•			\$28,809 to \$38,000 an anticipated.
J-1	232650		: Sign :allation				\$4,003 to imate of new signs
J-1	232660		ic Sign callation			\$4,294 from to fewer de	
J-1	232690	Traffic Co	ontrol Devi	ces		demand for	\$15,727 to \$9,500 barriers than
J-2	232990	Boulevard	Maintenanc	<b>e</b>	due to incr Council inc Austin Aven	eased scope luding speci	\$73.610 to \$77,170 of work required by al projects on way Avenue between ntain.
SOL II	WASTE C	OLLECTION				·	
K-2	243100	Administra	ition		due to adju		\$75,249 to \$67,902 (allocation by or.)
K-1	243200	Solid Was	te Disposal		\$63,102 due		m \$152,223 to n of GVSⅅ tipping period.
K-2	243300	Solid Wast	te Collecti	on	\$774,160 du Contract 82	e to increas 2-01 based on	m \$762,263 to e in Residential Consumer Price ntial growth.

# BUDGET AMENDMENT WORKSHEET CAPITAL PROVISION - Transportation and Drainage

DECISION PACKAGE 1	1983 BUDGET	PROPOSED CHANGE	1983 AMENDED BUDGET
Amendments within existing budget ceiling			<del></del>
532301 Municipal Subdivision Development	0	0	. 0
532312 Road Improvements	27,950	80,464	108,414
532314 Road and Lane Paving	81,560	(23,600)	57,960
532331 Pedestrian Facilities	22,500	13,792	36,292
532341 Erosion Control	114,985	(13,300)	101,685
532410 Bridge Construction	44,085	(15,660)	28,425
532500 Ornamental Streetlighting Installation		(6,000)	50,000
532600 Traffic Control Improvements	41,250	(18,900)	22,350
532900 Land Acquisition	8,000	(929)	7,071
532990 Miscellaneous	24,765	5,212	29,977
532342 Municipal Drainage Trunks	16,144	0	16,144
532343 Ditch Elimination Program	0	ñ.	0
532344 Storm Drainage Collection	191,605	(20,505)	171,100
532345 Storm Drainage Connections	25,339	(13,339)	12,000
532110 Engineering Services Office Equipment	475	125	600
532660 Engineering Services Drafting	5,785	0	5,785
531300 Service Centre Equipment	5,705 0	700	700
531310 Vehicle & Equip. Acquisition & Replace.	<b>~</b>	(2,395)	4,505
Sub Total	$\frac{667,343}{667}$	(14,335)	653,008
DECISION PACKAGE 2	007,343	(14,333)	055,000
Comprising desirable but less urgent projects	•		
532331 Pedestrian Facilities		e de la companya de	
-ADD Johnson Ave screenings walk	0	12,200	12,200
532344 Storm Drainage Collection	U	12,200	12,200
-ADD Poirier St. enclosure	0	130,000	130,000
Sub Tota	$\frac{0}{1}$	142,200	
Sub 10ta	<u> </u>	142,200	142,200
DECISION PACKAGE 3		4	
532331 Pedestrian Facilities	* €*		•
-ADD Phase II Dawes Hill sidewalk	0	25,000	25,000
532500 Ornamental Streetlighting	0	25,000	25,000
-ADD Paved utility strip Brunette	0	25,000	25,000
532344 Storm Drainage Collection		25,000	25,000
-ADD 600 Block Regan	0	18,600	18,600
532312 Road Improvements	, <b>U</b>	10,000	10,000
-ADD Smith Ave from Blue Mtn to Robin	nson 0	120,000	120 000
532314 Road and Lane Paving	115011 0	120,000	120,000
-ADD Lane west of Dogwood:	0	14 000	14 000
Como Lake to Smith		14,800	14,800
Lane S of Foster: E to Kerwin	U	9,000	9,000
Lane N of Adiron	U	5,900	5,90 <b>0</b>
Lane S of Charland W of Marmont		9,600	9,600
Sub Tota	1 0	227,900	227,900

#### CAPITAL BUDGET AMENDMENT WORKSHEET

Q3.1	532301	Municipal Subdivision Dev.	No Change in total individual accounts adjusted to actual contract payment prices. Add Hickey Street Pre-engineering Study @ \$5,000 for Engineering Services Cost allocation (Balancing entry on J-3).
03.1	532312	Road Improvements	INCREASE of \$80,464 from \$27,950 to \$108,414 Shaughnessy Street Transit Loop deferred owing to service freeze by B.C. Transit. Add Pipeline Road reconstruction @ \$63,914 to accommodate GVWD Water Main construction in June 1983. Add Road Referendum Decision Package (Council Res. #860, 1983 08 08) @ \$19,000. Add ALRT Extension Design Package @ \$9,000 (Council Res.#1028).
Q3.1		Road and Lane Paving	DECREASE of \$23,600 from \$81,560 to \$57,960. Defer Devon Street Paving @ \$18,000 deferred owing to review of maintenance priorities and potential benefits. Actual tendered prices lower than anticipated. Add extension of Gale Avenue @ \$2,150.
Q3.1	532331	Pedestrian Facilities	INCREASE of \$13,792 from \$22,500 to \$36,292. Add extension to Dawes Hill sidewalk @ \$10,542. Increase Engineering costs @ \$3,200.
Q3.1	532341	Erosion Control	DECREASE of \$13,300 from \$114,985 to \$101,685. Rebudgeted on the basis of engineering reports: mainly reduced scope of work at Mayfair Court.
Q3.2	532410	Bridge Construction	DECREASE of \$15,660 from \$44,085 to \$28,425, attributable to Burnaby cost sharing (net rather than gross costs are budgeted). Add \$7,500 for bridge repair project developed by consultants in July 1983.
Q3.2	532500	Ornamental Streetlighting Installation	DECREASE of \$6,000 from \$56,000 to \$50,000 based on contract prices received in Aug. 1983.
Q3.2	532600	Traffic Control Improve.	DECREASE of \$1,100 from \$41,250 to \$42,350. DEFER installation of purchased material until January 1984.
Q3.2	532900	Land Acquisition	DECREASE of \$929 from \$8,000 to \$7,071 based on actual disbursements.

03.2	532990	Miscellaneous	Increase of \$5,212 from \$24,765 to
4002	332330		\$29,977. DELETE catch fence at Shaughnessy owing to growth of trees which eliminates requirement. ADD \$2,327 for security handrail on retaining wall in lane north of Brunette. ADD \$11,000 landscape modifications to Ozada Boulevard to disc and hydroseed for machine mowing.
Q3.3	532342	Municipal Drainage Trunks	No Change.
Q3.3	532343	Ditch Elimination Program	DECREASE of \$101,500 from \$450,000 to \$348,500 owing to lesser amount of interest proceeds from Drainage Capital Reserve (lower interest). By-law 1389, 1983 refers.
Q3.3	532344	Storm Drainage Collection	DECREASE of \$20,505 from \$191,605 to \$171,100. Foster Ave and Colony Farm carryover allocation adjusted to actual contract price. DELETE Dewdney Trunk Ditch Enclosure by more economical pavement adjustment. ADD enclosure of Foster Avenue Poirier ditches in con-
			junction with Poirier Water Main extension (Council Res. # 239 refers.). ADD Walton Ave Ditch Improvements necessitated by runoff from development. ADD design study for Lafarge Lake to be charged against residual amount if By-law No. 814. ADD Park Crescent Ditch Enclosure @ \$12,155,600 Block Roderick @ \$44,000 and Hillcrest
• .			Ave @ \$13,300 which are ditch enclosure requests made in 1983 and determined to be high priority.
Q3.3	532345	Storm Drainage Connections	DECREASE of \$13,339 from \$25,339 to \$12,000. Lower than forecast demand for connections in unserviced areas.
Q3.4	532110	Technical & Office Equip- ment Eng. Services Div.	INCREASE of \$125 from \$475 to \$600. Amended to reflect actual cost of furniture, plus ADD one desk lamp and calculator for word processing facility.
Q3.4	532660	Technical & Office Equip. Eng. Serv. Div. Drafting	NO CHANGE. Additional mapping completed within budget.
Q4.1	532300	Service Centre Equipment	INCREASE \$700 from Ø to \$700. ADD a deskon unit for the U/ground Serv. Spt.
Q4.1	531310	Vehicle & Equip. Acquisition & Replace.	DECREASE \$2,395 from \$6,900 to \$4,505.  DEFER acquisition of a 110V converter and one traffic stand.

DEFER acquisition of a 110V converter and one traffic stand.

#### PIPELINE ROAD - OZADA TO GLEN (ROAD RESURFACING)

File:

05 02 83/02

Budget:

For consideration in the 1983 Amended Budget.

(The GVWD has forwarded \$7,000 to be used toward the cost of

resurfacing the road.)

Scope of Work

This project comprises the milling of existing pavement, grading and shaping the existing road base and paving Pipeline Road from Ozada Avenue to Lincoln Avenue.

#### Factors

- 1) Trunk sewer cut 1974 extends the entire length.
- 2) 1800 mm trunk watermain cut in 1983 by GVWD.
- 3) Current traffic is 870 vpd per lane and is progressively increasing due to local development.
- 4) This is a transit route.
- 5) Current road profile and cross section tends to trap water and provide poor ridability.
- 6) Monies received from the GVWD to complete the patch required over the recently installed 1800 mm trunk water main could go toward a resurfacing treatment rather than be used to "patch" the road.

#### Justification

The surface is very uneven and has deteriorated due to major utility installations and heavy vehicle use. Truck use is estimated to represent 90% of traffic flow. Maintenance demand is rated quite high and therefore work on Pipeline Road has received a high priority.

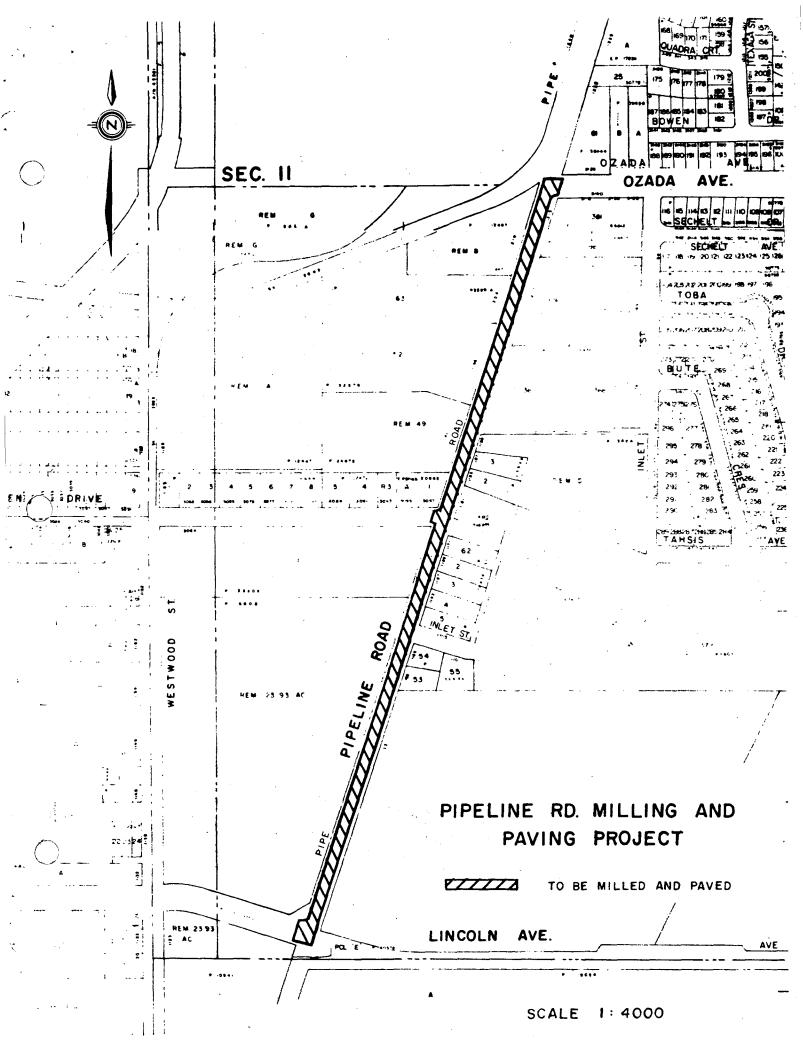
#### **Estimate**

Milling 7400 m <sup>2</sup> @ \$1.80/m <sup>2</sup>	\$13,320
Excavation 200 m <sup>3</sup> @ \$8.38/m <sup>3</sup>	1,676
Catch Basins 13 @ \$600/ea	7,800
Catch Basin Connections 156 m @ \$40/m	6,240
Adjust manholes 10 @ \$160/ea.	1,600
Adjust Water Valves 3 @ \$25./ea.	75
Crushed Granular Base Course 4000 m <sup>2</sup> @ \$1.60/m <sup>2</sup>	6,400
Asphaltic Concretre (50 mm thick) 9400m <sup>2</sup> @ \$3.69/m <sup>2</sup>	34,686

TOTAL

71,797

470,5 h



#### GALE AVENUE PAVEMENT EXTENSION - ROAD AND LANE PAVING PROGRAM

File: 05 01 17

Budget: For consideration in the 1983 Amended Budget.

#### Scope of Work

This project comprises the grading, gravelling and paving of approximately  $150~\text{m}^2$  of an existing gravel surfaced road located on Gale Avenue in the 2200 block. The work would extend the existing pavement on Gale Avenue from the east limit of the pavement to the east property line of house address 2211 Gale Avenue.

If approval for the work is granted, it is anticipated that the project would be added to Contract 83-02, the 1983 Paving Program, and would be completed in October 1983.

#### Justification

- 1) The resident at 2211 Gale Avenue has requested by telephone that the District pave this section of road. He further stated that he has been requesting this work to be done for four years (there are no records to substantiate this).
- 2) The District has established an objective to upgrade existing gravel roads and lanes with asphalt surfacing.
- 3) A site visit on 1983 09 23 indicated that the road surface for this area is not in a rough condition and does not require any work at this time.
- 4) Based on the Capital Projects warrant system, defined by user benefits, safety, maintenance and capital cost, this project is rated last on the priority list.
- 5) The project could be deferred until the abutting gravel lane is paved.

#### Factors

- The Surface Operations Division has advised that up to three hours per year are spent grading the subject area at a cost of approximately \$200 per year.
- 2) There is no record of traffic accidents for the area.

#### GALE AVENUE PAVEMENT EXTENSION etc. - cont'd...

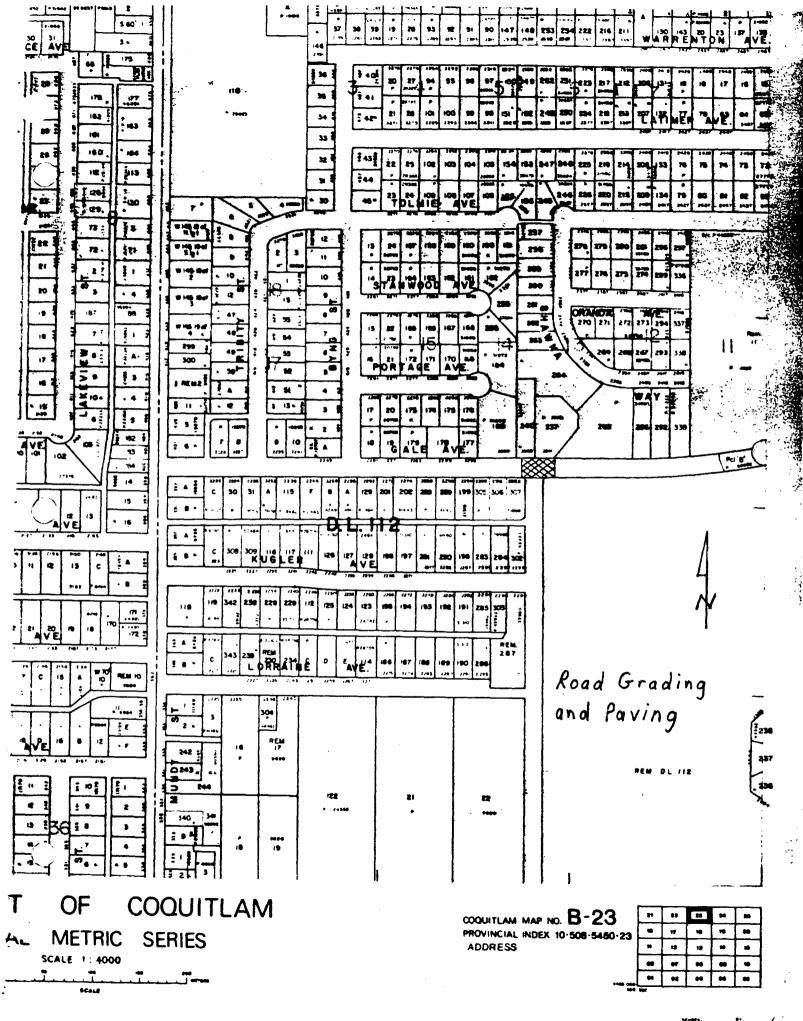
#### Factors - cont'd

- 3) The Traffic Division advises that to estimate vehicle use in the area, an average of 10 trips per day/per abutting property should be used. This amounts to 20 vehicle trips per day.
- -4)—Capital projects scheduling will be proposing this project in 1984.

#### Estimate

Scarifying and Reshaping existing base 150 m <sup>2</sup> X \$0.52		\$ 78.00
Crushed Granular Base Course 150 <sup>2</sup> X 100 mm X 2.2 X \$7.89		260.37
Asphaltic Concrete 150 m <sup>2</sup> X 75 mm X 2.39 X \$30.75		826.79 1,165.16
	USE	\$1,200.00

NOTE: Estimate based on prices from Contract 83-02, 1983 Paving Program.



#### DAWES HILL SIDEWALK - PEDESTRIAN FACILITIES

File:

05 02 83/08

Budget:

For consideration in the 1983 Amended Budget.

Scope of Work Description

The remaining portion of sidewalk on Dawes Hill Road to complete the link between Mundy Street and Mathewson Avenue, can be considered in two parts; the first part comprises constructing approximately 160 metres of temporary gravel sidewalk along the north side of Dawes Hill from Warrick to Cape Horn and the second part comprises constructing approximately 270 metres of permanent concrete monolithic curb sidewalk along the north side of Cape Horn from Dawes Hill to Mathewson.

#### Justification

- 1) Dawes Hill Road is a very hazardous section of roadway to be negotiated by pedestrians (particularly school children) without sidewalks. This is due to steep grades, narrow pavement widths, and substandard sight distances.
- 2) The District School Board has requested that this link of sidewalk be completed to facilitate elementary students travelling from the Dartmoor subdivision area south of Mathewson Avenue to Mundy Street School.
- There are no existing convenient alternate routes for pedestrian traffic.
- 4) Eliminate shoulder maintenance at \$600 per year.

#### <u>Factors</u>

- 1) Field investigation reveals that the most hazardous portion of Dawes Hill Road for pedestrians exists from Cape Horn Avenue to approximately 130 m east of Cape Horn Avenue where the pedestrians must travel on the paved portion of the roadway.
- 2) The permanent sidewalk construction near the Mathewson Avenue intersection should be deferred until the Provincial Government reconstructs the intersection. There is a good chance that the Provincial Government may absorb the costs of sidewalk construction in this area. The Provincial Government detailed construction plans for this area have not yet been finalized.

#### Factors - cont'd...

- 3) The temporary sidewalk would clearly define where pedestrians should travel on Dawes Hill Road.
  - 4) There are provisions in the 5 year capital plan to do this work in 1984.
  - 5) The design work has been completed by a consultant and the plans are approved.
  - 6) Contract 83-08 has been awarded to Columbia Bitulithic and the contract includes the work of constructing sidewalk at the top end of Dawes Hill Road.
  - 7) 56 school children (1982 data).
  - 8) 1,800 vehicles per day.
  - 9) +15% grades.
  - 10) 6 m<sup>±</sup> existing pavement width.

#### **Estimates**

#### Temporary Screenings Walk - 160 m long X 1.2 m wide.

Materials		
Lumber - 200 m @ \$.53/m	\$106.00	
Screenings - 160 X 1.2 X .075 X 2.2 X \$7.80	247.10	
Asphalt curb - 160 X .075 X .15 X 2.39 X \$34.95	150.36	
		503.46
Labour		
Truck driver(1) 2.5 days X 8 X \$12.42	248.20	
Machine Operation (1) 2.5 X 8 X \$12.91	258.20	
Labourers (3) 2.5 X 8 X 3 X \$11.46	687.60	
Foreman(1) 1.5 days X 8 X \$16.00	192.00	
Burden 1,386 X 0.355	492.03	
	<del></del>	1,878.03
<u>Equipment</u>		
Tandem - 2.5 days X 8 X \$16.50	330.00	
Backhoe - 2.5 days X 8 X \$12.10	242.00	
1/2 ton - 2.5 days X 8 X \$9.15	183.00	
1/2 ton - 1.5 days X 8 X \$4.30	51.60	
		806.60
TOTAL:		3,188.09
USE:		\$3,200.00

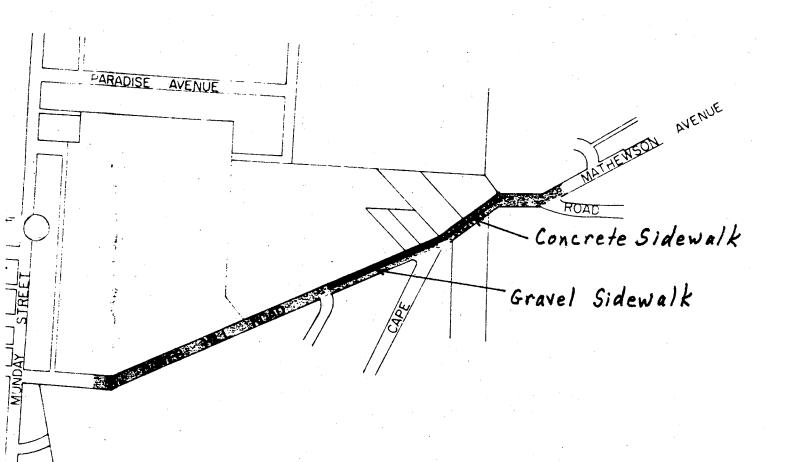
#### Concrete Sidewalk - Cape Horn to 130 m east

Note: Prices based on Contract 83-08, the upper end of Dawes Hill Road.

Concrete monolithic curbwa	1 k 🗄	110	m C	6	\$52.80/m	\$ 5,808.00
Concrete sidewalk crossing	S	20	) m	0	\$67.30/m	1,346.00
Driveway restoration	20	Χ	1	6	\$9.35/ea.	187.00
Boulevard Grading	110	X	1	0	\$6.00/ea.	660.00
					TOTAL:	\$ 8,001.00
			٠.		USE:	\$ 8,000.00

### Dawes Hill Sidewalk





LOCATION PLAN

JOHNSON SIDEWALK: GUILDFORD WAY TO WALTON

File:

05 02 83/

Budget:

For consideration in the 1983 Amended Budget.

#### Description

This project improves a road shoulder to provide a facility for pedestrians along a rural standard arterial roadway. The project consists of 530 m of gravel sidewalk on Johnson Street from Guildford Way to Walton Avenue.

#### Design Factors

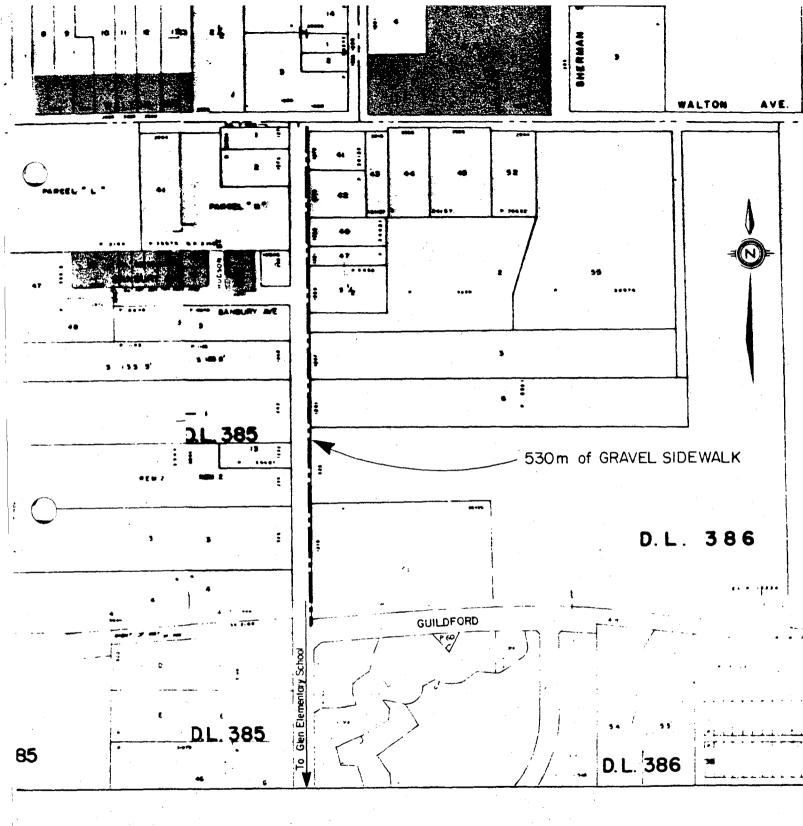
There is a concrete sidewalk south of this section of roadway along the east side of Johnson Street. The proposed screenings walk should tie in to the southern facility.

#### <u>Justification</u>

Residential land development in the area, as shown on the attached sketch, will generate some 130 elementary school students during the next year. These students will attend Glen Elementary School. The designated pedestrian route to Glen Elementary School from the development area is south along the east side of Johnson Street. Until such time as Johnson Street is constructed to an ultimate standard, which would include sidewalks, it is proposed that pedestrians walk along the gravel shoulder area on the east side of Johnson Street. The purpose of this project is to improve this shoulder area to provide an interim facility for the separation of these pedestrians from vehicular traffic.

#### <u>Estimate</u>

Α.	Asphaltic Curb - 200 m @ \$20/m	\$ 4,000
В.	Prepare Base - 16 hrs @ \$60/hour	960
С.	Screenings Supply - 233 m <sup>3</sup> @ \$15/m <sup>3</sup>	3,495
D.	Spread and Compact - 16 hrs @ \$110/hour	1,760
Ε.	Supervision - 16 hrs @ \$25/hour	400
		\$10,615
	+15% Contingency	1,585
		\$12,200



### JOHNSON STREET

SIDEWALK: GUILDFORD WAY to WALTON AVE.

PROPOSED CHAIN LINK FENCE IN LANE NORTH OF BRUNETTE AVENUE, EAST OF BERNATCHEY STREET

File:

05 01 17

Budget:

For consideration in the 1983 Amended Budget.

#### Scope of Work

The work comprises installing a 2 metre high chain link fence along the south side of a lane north of Brunette Avenue from Bernatchey Street to 100 m east of Bernatchey Street.

#### Justification

The concrete retaining wall in this area does not have handrails to protect the public from falling over the one to three metre high grade separation.

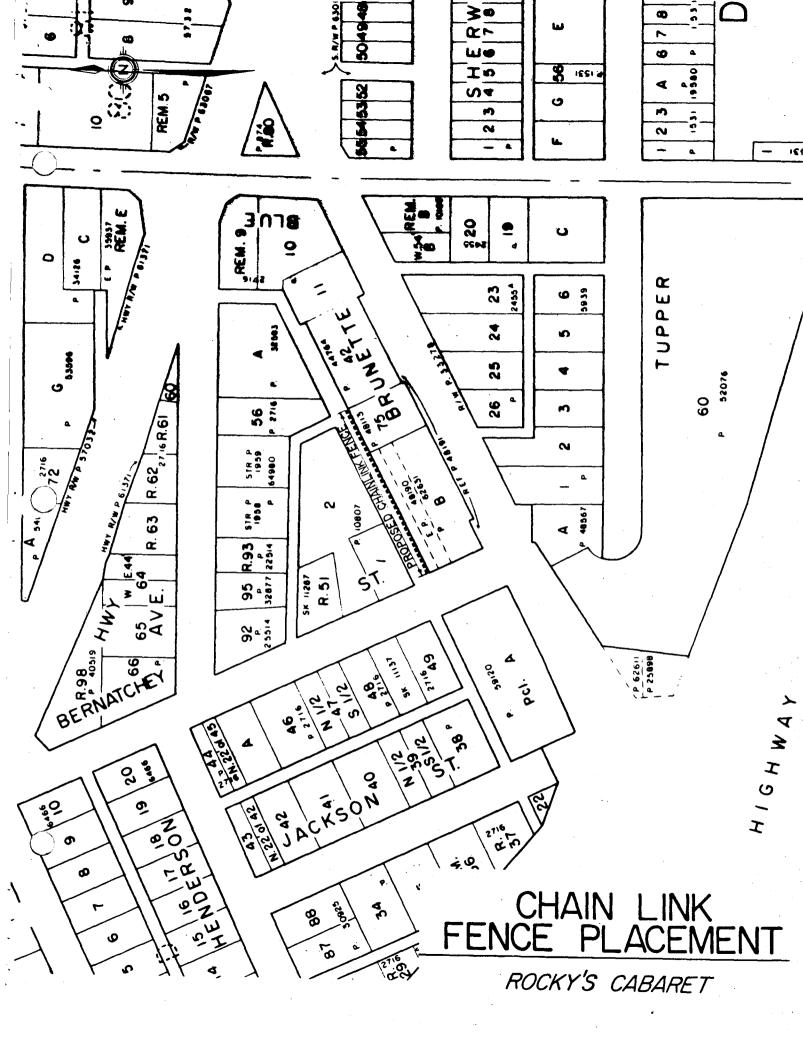
#### Estimate

100 m of 2 m high chain link fence @ \$23.27/m

\$2,327

USE

\$2,350



#### OZADA AVENUE - BOULEVARD LANDSCAPING

File:

05 01 17

Budget: For consideration for funding from the 1983 Amended Budget.

#### Scope of Work

This project will comprise scarifying, grading and hydroseeding approximately 6,400 m<sup>2</sup> of existing boulevard along the southerly and easterly flank of Ozada Avenue between Inlet Drive and Tahsis Avenue.

#### Factors

- The District could undertake to maintain the area with an Α. arrangement similar to that presently in place for the Mayfair Industrial Park boulevard maintenance in 1984.
- Ozada Avenue is presently designated as an arterial street В. currently being used by very little traffic. Access to Ozada is restricted and it will not function as an arterial street until a Coquitlam River crossing is constructed at least 20 years hence.

#### Justification

The subject area in its present state is considered unsightly and in need of landscape restoration and subsequent maintenance.

Property owners approached the Engineering Department in 1982 and Coquitlam Council in 1983 to protest the necessity ofd travelling around the block simply to maintain their own adjacent boulevard.

#### Estimate

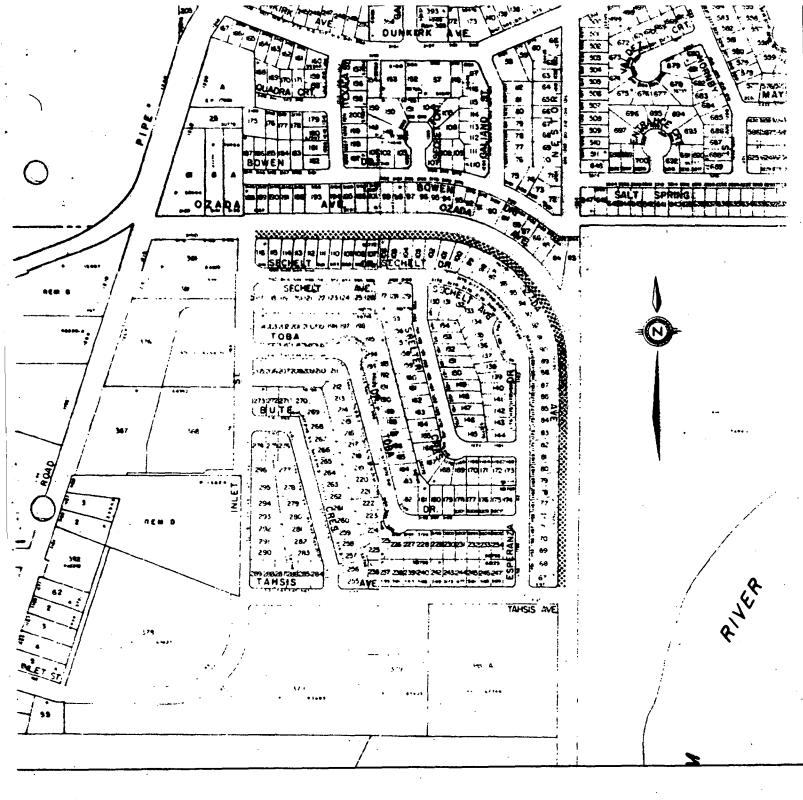
Boulevard Grading

\$ 7,500

Hydroseeding

3,500

\$11,000



### OZADA AVENUE

LANDSCAPING MODIFICATION ON BOULEVARD

#### LAFARGE LAKE DYKING

File:

05 02 83/14

Budget:

For consideration in the 1983 Amended Budget.

#### Scope of Work

The work will comprise obtaining approvals from the Ministry of the Environment, the Ministry of Water Management and the Ministry of Fish and Wildlife; the design of a dyke of sufficient length and height to contain water generated by a 100 year storm event; and the subsequent construction of the dyke.

The District has engaged the services of Ker Priestman and Associates Limited, consulting engineers, to study the drainage requirements for the Town Centre. The study includes the Lafarge Lake area. The justification, scope of work and cost estimate for this project cannot be accurately determined until the Engineering Department receives the report from the consultant due on 1983 10 31.

#### <u>Justification</u>

The District of Coquitlam must control flooding in areas of major development such as that proposed for the Town Centre Development.

#### DITCH IMPROVEMENTS: NORTH SIDE WALTON AVENUE

File:

05 02 83/04

Budget:

For consideration in the 1983 Amended Budget.

#### Description

This project consists of:

- (1) installing inlet grates on 3 culverts;
- (2) cleaning and regrading the ditch at select locations;
- (3) removing obstructions from ditch and culverts;
- (4) replace six existing 375 mm Ø concrete culverts with 560 X 420 CSP pipe arches

for the temporary enhancement of a ditch on the north side of Walton Avenue from Johnson to the west end of Walton.

#### Design Factors

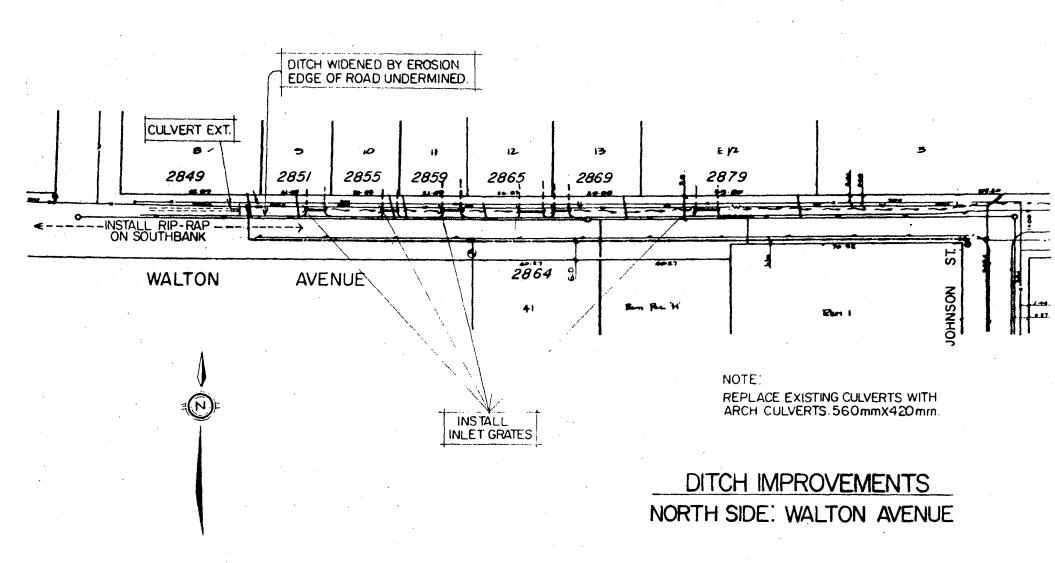
- A. A new 80 lot subdivision is being built at the west end of Walton Avenue. The resultant increase in runoff to the ditch on Walton Avenue combined with blockage of the ditch has induced local flooding.
- B. Ditch grades vary from 5.5% by Sherman Avenue to 8% west of Johnson Street.
- C. Culvert blockage has been a problem due to branches and other debris clogging the inlets.
- D. The Town Centre Drainage Study has identified the Walton Avenue ditch from the west end to Hoy Creek as requiring enclosure in the 1984-1986 period.
- E. Increased erosion due to runoff from the new subdivision at the west end of Walton has led to plugging of culverts by silt and gravel buildup.

#### Justification

Damage to properties on the south side of Walton Avenue has been caused by flooding induced by erosion and blockage of the ditch on the north side of Walton. The flooding has also caused the shoulder and the edge of the road at the west end of Walton Avenue to be undercut increasing maintenance demand.

#### **Estimate**

1.	Install Inlet grates on three culverts	\$600
2.	Clean ditch, remove obstructions	500
3.	Install rip rap on south bank of ditch between the driveway culverts at 2855 and 2849 Walton Avenue	500
4.	Replace 6 existing concrete culverts with 6 arch culverts:	6,650
	TOTAL:	8,250



DITCH ENCLOSURE: 2280 PARK CRESCENT

File:

03 03 02

Budget:

For consideration in the 1983 Amended Budget.

#### Description

This project consists of the installation of 36.5 metres of pipe and bedding, manholes, and service connections to completely enclose a small watercourse adjacent lots 389 and 388 addressed 2274 and 2280 Park Crescent.

#### **Factors**

Tie ins to be made to existing sewer at both ends of exposed channel. Service connections to be provided to 1037 and 1039 Polermo Street.

#### **Justification**

According to the Simon Fraser Health Unit the "E coli" count in the water is too high. The water in the creek appears brown to white, suggesting a high pollution concentration. However, an enclosure of a creek on private property which poses no significant threat to life or property would not ordinarily receive a high priority for Municipal attention.

#### Estimate

Trench, Excavation and Backfill	36.5 m @ \$31 ea. =	1,132
Pipe & Bedding	36.5 m 0 \$58 ea. =	2,117
Import Fill .4(.8) (365)	12 m <sup>3</sup> 0 \$14. m =	168
Manholes - Backfill and cover - Walls	2 @ \$984 ea. = 2.4 m @ \$442 =	1,968 1,061
Service Connections	12 m 0 \$70 m =	840
Restore Prop. 5 (56)	280 m <sup>2</sup> @ \$4 m =	$\frac{1,120}{8,406}$
	+ 15%	1,261 9,667
Engineering	Say 15%	9,700 1,455
Easement - preparation - acquisition		1,000
·	TOTAL:	\$12,155

ON THE CALL OF THE COLL . Nos · unoos \$5 31 Soom s PATAKE 38<sup>9</sup> 375 mm 8 -1 38<sup>8</sup> V DITCH ENCLOSURE 2280 PARK CRESCENT 6 Nos Ounos **%** 

#### 600 BLOCK RODERICK-NORTH SIDE DITCH ENCLOSURE

File:

05 01 03

Budget:

For consideration for funding from the 1983 Amended Budget.

#### <u>Description</u>

This project encloses 100 m of open ditch in front of 5 lots. The work comprises storm drainage works, service tie-ins, imported fill, tieing into upstream and downstream drainage systems and boulevard landscaping.

#### Design Factors

- A. The existing open ditch is up to 4 metres wide and 2.5 metres deep. Approximately 300 cubic metres of fill will be required.
- B. The maintenance of the subject ditch over a period of years has served to double the surface width.
- C. Each of 4 driveways is retained by concrete retaining walls at both ends of their culverts, totalling over 8 cubic metres of concrete to be removed in addition to the culverts.
- D. The proposed drainage works would require two new manholes and tieing into the existing drainage system at three locations.

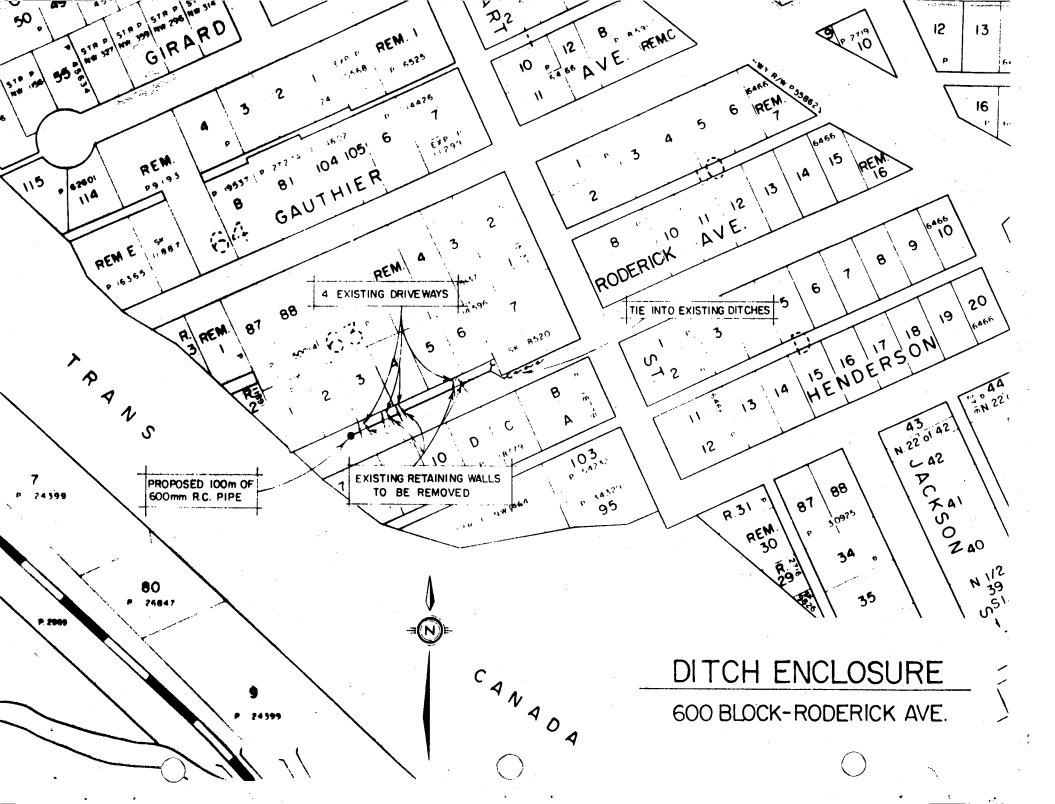
#### Justification

- 1. A child, particularly the toddler residing at 633 Roderick is exposed to the immediate hazard of tumbling 2.5 m down a concrete debris driveway retaining wall into a minimum of 0.3 m flow of water.
- 2. Local residents complaining of rats inhabiting the ditch.
- 3. The owner of 635 Roderick claims to have forsaken gardening to the slug population immigrating from the ditch.
- 4. Resident parking is hazardous (according to local residents) evidenced by at least one vehicle backing into the ditch.
- 5. The cost of channel maintenance is exaggerated by the fact that each cleaning operation includes restoration of portions of the concrete driveway retaining walls.

#### 600 Block Roderick-North Side Ditch enclosure - continued

### **Estimate**

Supply and install 1050 m Ø Manholes	2 ea. 0 \$1300 =	2,600
Supply and install 600 m of Catchbasin	s 2 ea 0 \$ 600 =	1,200
Tie into existing storm sewer	2 ea. @ \$300 =	60 <b>0</b>
Tie into existing manhole	1 ea. 0 \$300 =	300
Tie in existing service drains	6 ea. 0 \$300 =	1,800
Trench Exc. & Backfill	100 @ \$53 =	5,300
Catch Basin Pipe & Bedding & Backfill	6 m @ \$120 =	<b>72</b> 0
Pipe & Bedding 600 mm Ø Concrete C-76	100 m @ \$150 =	15,000
Imported Fill 120 X 1 X 2.5	$300 \text{ m}^3 \text{ (0.59)} =$	2,700
Topsoil and seed 120 X 4	480 m <sup>3</sup> @;\$3.50 =	1,680
Remove Concrete Driveway Walls 7 m X 3 m X 2 m X .2 m	8.4 m <sup>3</sup> @ \$300 =	2,520
Remove culverts 8 + 6 + 6 + 5	25 m @ \$20 =	500
Restore Driveway Base 8X4+3X3+3X4+3X5+4X5 = 32+9+12+15+20	90 m <sup>2</sup> @ \$3 =	270
Restore Driveway Pavement 3X3+3X4+3X5 = 9+12+15	36 m <sup>2</sup> @ \$20 = Sub Total + Contingency Sub Total + Engineering	720 35,910 4,090 40,000 4,000
	TOTAL	44,000



#### 500 BLOCK HILLCREST STREET DITCH ENCLOSURE

File:

05 02 83/04

Budget:

For consideration in the 1983 Amended Budget.

NOTE: \$5,250 available from Trust A/c.14186 (prepayment).

#### Scope of Work

The work consists of the design and subsequent construction of approximately 63 m of 450mm diameter concrete pipe storm sewer, complete with appurtenances and restoration of the disturbed area, on the west side of Hillcrest Street from Austin Avenue to 60 m north of Austin Avenue.

#### Justification

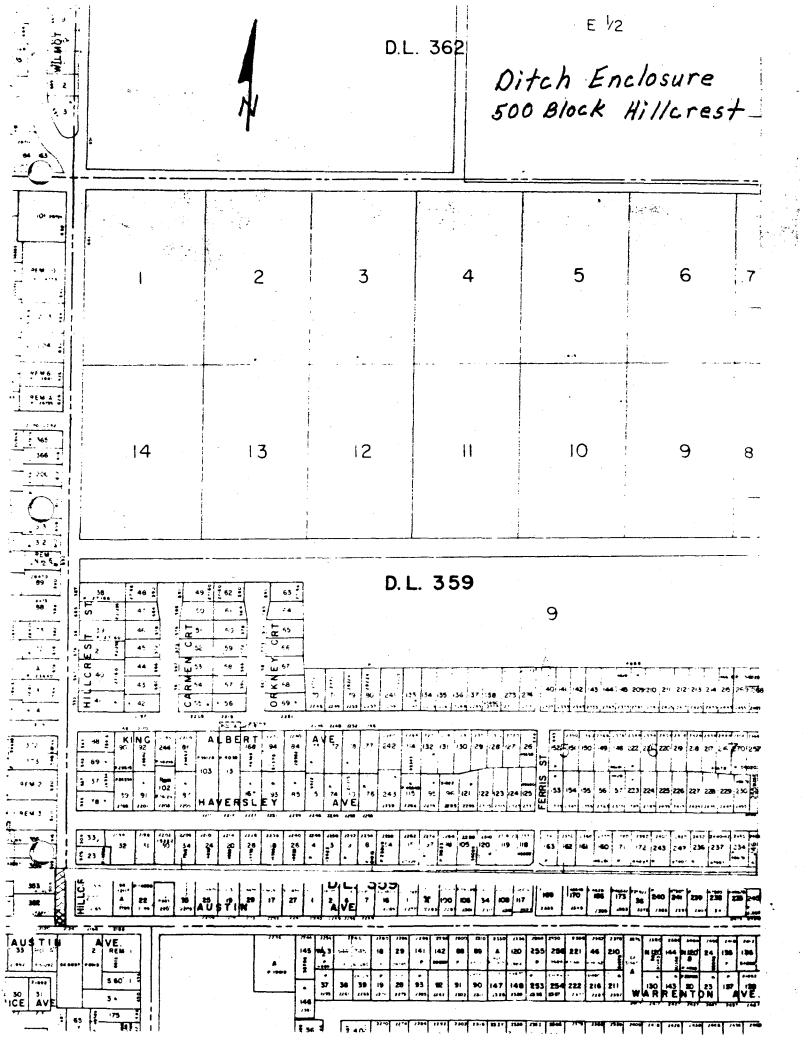
The existing ditch which is 3 m wide and up to 1.2 m deep poses a threat to vehicular traffic travelling along Hillcrest Street

#### **Factors**

- 1) Traffic Volume 4,500 vehicles per day.
- 2) Vehicle Accidents 4 in the past 6 months.
- 3) Hillcrest Street main access to Mundy Park.
- 4) Petition submitted by local residents requesting improvement to 500 block.

#### Estimate

Excavation - $25 \text{ m}^3 \text{ 0 } \$8/\text{m}^3$	\$	200
Remove Existing Culverts - 4 @ \$70/ea		280
450 mm Ø Concrete Storm Sewer - 63 m @ \$130/m		8,190
Relocate Sandbag Outlet - 1 @ \$500/ea		500
Relocate Catch Basin - 1 @ \$300/ea		300
Storm Lot connections - 5 @ \$400/ea		2,000
Imported Granular Backfill 95 m <sup>3</sup> @ \$15/m <sup>3</sup>		1,425
Crushed Gravel for Driveways & shoulders	•	
190 m <sup>2</sup> @ \$5/m <sup>2</sup>		950
Asphaltic Concrete for Driveways		
32 m <sup>2</sup> 0 \$12/m <sup>2</sup>		384
Boulevard Grading - 63 m <sup>2</sup> @ \$6/m <sup>2</sup>	-	378
Sub-total	1	14,607
Engineering & Contingencies		3,653
TOTAL	7	8,260
	=	



#### 500 & 600 BLOCK OF POIRIER STREET DITCH ENCLOSURE

File:

05 01 03

Budget:

For consideration in the 1983 Amended Budget.

#### Scope of Work

The work would include the design and subsequent construction of approximately 550 m of 450 mm diameter concrete pipe storm sewer, complete with appurtenances and restoration of disturbed areas on the east side of Poirier Street from Haversley Avenue, north to the Recreation Centre.

#### Justification

This section of Poirier Street has generated numerous complaints from local residents over the past few years, and requests for the ditch to be cleaned and/or enclosed.

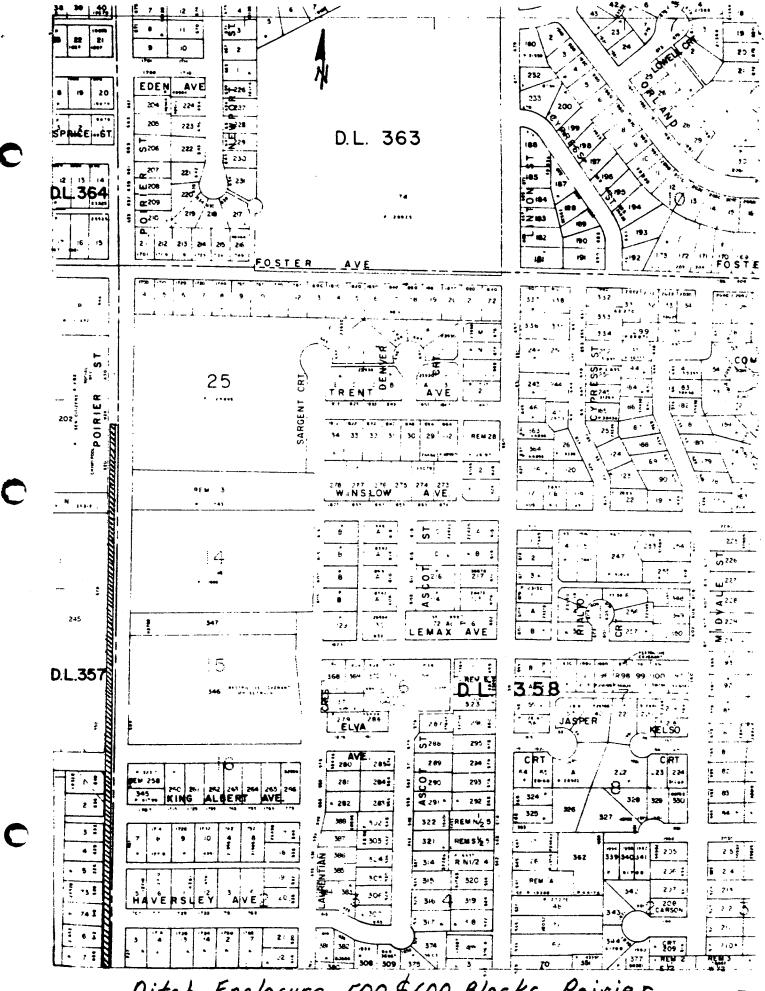
Upon instructions from Acting Mayor Robinson on 1983 09 02, the Engineering Department investigated the site and reported that some sections of the ditch have eroded substantially exposing existing gas works, and that the culvert sizes are too small to accommodate heavy rainfalls. This was confirmed with a design check and it should be noted that most of the runoff is from Municipal development. Poirier Street is the main access to the District's Recreation Centre. The ditch enclosure would enhance the aesthetics of the area and reduce the maintenance calls which are expected to increase in this area if nothing is done.

Estimate	F	c	+	i	m	a	+	۵
----------	---	---	---	---	---	---	---	---

mate	
Remove culverts 170 m @ \$26.50	4,505
Remove Inlet - 1 @ \$207	207
Trench Exc. & Backfill 1-2m deep - 535 m @ \$31.	16,585
Pipe & Bedding - 535 m @ \$80.50	43,068
Import Fill - 270m <sup>3</sup> @ \$11.90	3,213
Compaction - 535 m @ \$5.	2,675
Manholes - Base & Casting - 6 @ \$984	5,904
- Walls - 9 m @ \$443.	3,987
CBs - 10 0 \$701	7,010
Leads - 50 m @ \$70	3,500
Inlets - 2 @ \$725	1,450
Leads - 15 m @ \$80	1,200
Service Connections - 45 m @ \$60	2,700
Tie into existing M.H 2 @ \$250.	500
Asphalt Lip - 700 m @ \$5.	3,500
Asphalt Restoration - 65 m <sup>2</sup> @ \$15.	975
Boulevard Gravel - 1500 m <sup>2</sup> @ \$3	4,500
	105,479
Contingency + 10%	
Engineering + 10%	
	127,629

TOTAL

\$130,000



Ditch Enclosure 500 \$600 Blocks Poirier

# BUDGET AMENDMENT WORKSHEET WATER UTILITY

		1	983 Budget	Proposed Change	1983 Amended Budget	
WATER UT1	ILITY					
984100 A	Administration		493,736	15,000	508,736	
98 <b>4200</b> F	Purchase of Water		418,345	0	418,345	
984300 W	Water Supply: Oper./Maint.		49,599	(12,699)	36,900	
984400 1	Transmission & Distribution	•	314,252	(24,603)	289,649	
984500 F	Pumping		100,167	(12,388)	87,779	
985100	Customer Billing/Collection		99,135	(7,137)	91,998	
988100	Debt Retirement		432,500	0	432,500	
			1,907,734	(41,827)	1,865,907	
	Capital Provision		284,922	(67,283)	217,639	
. 6	General Operating Provision		20,000	0	20,000	
		Sub-Total	2,212,656	(109,110)	2,103,546	X

#### Budget Amendment Worksheet - cont'd...

#### BUILDING - OPERATIONS - SOLID WASTE - WATER - SEWER

#### WATER UTILITY - OPERATIONS

R2-1 984100 Water Utility Admin. INCREASE of \$15,000

INCREASE of \$15,000 from \$493,736 to \$508,736 amended to reflect increase of Engineering Services Division cost

allocation.

R2-1 984200 Purchase of Water

NO CHANGE.

R2-1 984300 Water Supply Op./Maint.

DECREASE of \$12,699 from \$49,599 to \$36,900 due to more efficient reservoir and pressure reducing valve preventative

maintenance.

R2-1 984400 Water Transmission and Distribution

DECREASE of \$24,603 from \$314,252 to \$289,649 due to reduced requirement for distribution system repairs and asphalt repairs.

R2-1 984500 Water Pumping & Telemetry

DECREASE of \$12,388 from \$100,167 to \$87,779 due to more efficient pumping facilities preventative maintenance.

R2-1 985100 Customer Billing & Collec.

DECREASE of \$7,137 from \$99,135 to \$91,998 due to more efficient meter readings.

R2-1 988100 Fiscal Services

NO CHANGE.

#### WATER UTILITY - CAPITAL PROVISION

R3-1 994420 New Distribution Mains

DECREASE of \$82,059 from \$179,650 to \$97,591 adjusted to reflect actual contract price.

R3-1 994440 New Water Services

INCREASE of \$14,276 from \$47,241 to \$61,517 due to increased service box installation.

# BUDGET AMENDMENT WORKSHEET SEWER ENTERPRISE

		1983 Budget	Proposed Change	1983 Amended Budget
SEWER E	NTERPRISE	•		
621100	Administration	474,414	7,896	482,310
621300	Survey & Design	2,000	0	2,000
622100	Sewage Collection System Oper./Maint.	114,507	11,221	125,728
623100	Sewage Pumping System Oper./Maint.	157,345	(22,573)	134,772
628400	GVSⅅ Charges	1,124,988	0	1,124,988
629100	Sewer Enterprise Special Maint.	14,750	(3,622)	11,128
		1,888,004	(7,078)	1,880,926
	Debenture Debt	913,939	0	913,939
	General Operating Provision	30,000	0	30,000
	Capital Provision	41,000	54,029	95,029
	Sub-Total	2,872,943	46,951	2,919,894

#### Budget Amendment Worksheet - cont'd...

#### BUILDING - OPERATIONS - SOLID WASTE - WATER - SEWER

#### SEWER ENTERPRISE - OPERATIONS

S2-1 621100 Sewer Enterprise Admin.

INCREASE \$7,896 from \$474,414 to \$482,310. Increased Engineering Services Division Cost allocation (\$15,000). Decreased Sewer salaries (Operations Division Administrator Cost allocation \$10,005.

S2-1 621300 Survey & Design

NO CHANGE.

S2-2 622100 Sewage Collection Maint.

INCREASE of \$11,221 from \$111,051 to \$122,272 due to higher than anticipated number of sewer blockages/repairs.

S2-1 628400 GVS&DD Charges

NO CHANGE.

S2-1 629100 Sewer Enterprise:

DECREASE of \$3,622 from \$14,750 to \$11,128 due to reduced requirement asphalt patching of trenches.

#### SÉWER ENTERPRISE - CAPITAL PROVISION

S3-1 652530 Pumping Stations

INCREASE of \$54,029 from \$0 to be used as an interim source of funds to expedite the Begin Street Pumping Station installation prior to necessary borrowing by-laws being formally approved by Council and the Province.