

ITEM 13  
MANAGER'S REPORT NO. 41  
COUNCIL MEETING 1979 06 11

RE: LANDSCAPE ARCHITECTURAL SERVICES FOR PRELIMINARY STUDY OF  
BYRNE ROAD UPGRADING  
RELOCATION OF BYRNE CREEK

Following is a report from the Director of Planning and the Parks and Recreation Administrator regarding services for a preliminary study on the proposed relocation of Byrne Creek.

RECOMMENDATION:

1. THAT the recommendation of the Director of Planning and the Parks and Recreation Administrator be adopted.

\* \* \* \* \*

TO: MUNICIPAL MANAGER 1979 JUNE 05  
CUR FILE: 15.101(11)  
FROM: DIRECTOR OF PLANNING AND  
PARKS AND RECREATION ADMINISTRATOR  
SUBJECT: LANDSCAPE ARCHITECTURAL SERVICES FOR PRELIMINARY  
STUDY OF BYRNE ROAD UPGRADING - RELOCATION OF  
BYRNE CREEK

RECOMMENDATION:

THAT the Corporation of Burnaby enter into an Agreement with Pacific Landplan Collaborative Limited to provide the Landscape Architectural services as outlined in the terms of reference dated 1979 May 08, and in accordance with the Consultants' proposal dated 1979 May 25 for a fee not exceeding \$5,575.00.

REPORT

BACKGROUND:

On 1979 January 29, Council received a report on the proposed upgrading of Byrne Road to an industrial standard. At that time Council passed the following resolutions:

- " (a) THAT Council authorize the Planning and the Parks and Recreation Departments to prepare the terms of reference for engaging a landscape architect for the preliminary design of the relocated Byrne Creek; and

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11

- (b) THAT Council authorize the Municipal Engineer to prepare the terms of reference for engaging an engineering consultant to prepare a preliminary design which will establish the method and standards for constructing the services requisite to upgrading Byrne Road, including a cost estimate of these services. "

141

On 1979 April 02, Council received a report from the Municipal Engineer concerning proposals which had been received from the Engineering Consultants for the preparation of a preliminary design and cost estimate for the upgrading of Byrne Road. At that time Council authorized the execution of an agreement with McElhanney Surveying and Engineering Limited to provide these services for fees estimated to be \$17,773.00.

The Planning and the Parks and Recreation Departments subsequently forwarded the attached invitation, including the terms of reference, to several reputable Landscape Architectural firms.

EXISTING SITUATION:

Five proposals have been received from the following firms:

1. Richard Pavelek,  
Landscape Architect,  
2386 Kings Avenue,  
West Vancouver, B. C.
2. Pacific Landplan Collaborative Limited,  
673 Homer Street,  
Vancouver, B. C.
3. Eikos Planning and Environmental  
Design Group Limited,  
201 - 933 West 8th Avenue,  
Vancouver, B. C.
4. Ron Rule Consultants Limited,  
2995 West 21st Avenue  
Vancouver, B. C.
5. Tattersfield Associates,  
Land Design Group 1978 Limited,  
201 - 1008 Homer Street,  
Vancouver, B. C.

The objective of the design of the relocated channel is to construct a facility which is simple and natural, but at the same time, satisfies the hydraulic, aesthetic and fisheries criteria. This fact, coupled with the problems associated with designing a watercourse channel in difficult soil conditions, dictate a critical analysis of the various submissions rather than simply awarding the contract to the low bidder.

Staff reviewed each of the proposals and assigned a weighted value up to five for the various components of each proposal as follows:

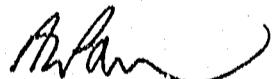
ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11

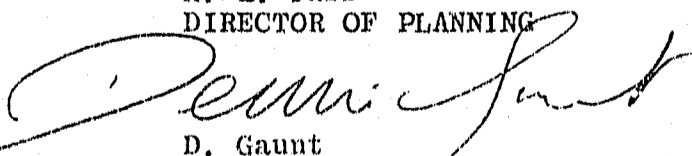
	Richard Pavelek	Pacific Landplan	Eikos	Ron Rule	Tattersfield Associates
Comprehensiveness of Process	3.5	5	4	3.5	2.5
Experience	3.5	4	5	4	5
Expertise in Difficult Soil Conditions	2	3	4	3	3
Professional Staff Hours	102 2	146 3	161 3.5	144 3	431 4
Technical Staff Hours	48 3.5	52 3.5	52.5 3.5	60 4	393 4.5
Cost	\$4,284 5	\$5,575 4	\$6,848 3	\$8,101 2	\$19,863 0
TOTAL	19.5	22.5	23.0	19.5	19.0

It is evident from the foregoing chart that the competition narrows down to a choice between Pacific Landplan Collaborative Limited and Eikos Planning and Environmental Design Group Limited. In our view both firms are admirably suited to undertake the work as proposed and therefore, the final selection between these two has been recommended on the basis of cost.

It is therefore recommended that an agreement be entered into with Pacific Landplan Collaborative Limited to provide the services as outlined.

A copy of their submission is attached for Council's information.

  
 A. L. Parr  
 DIRECTOR OF PLANNING

  
 D. Gaunt  
 PARKS & RECREATION ADMINISTRATOR

PB:EE/sam  
 Attachments

cc: Municipal Solicitor  
 Municipal Engineer  
 Municipal Treasurer

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11

143

1979 May 08

Dear Sirs:

Re: Services For Preliminary Study  
On Proposed Relocation of  
Byrne Creek

The Corporation of the District of Burnaby intends to engage a Landscape Architect to assist in the preparation of a comprehensive preliminary study of the methods and standards, including cost estimates, for the relocation of Byrne Creek off of the Byrne Road right-of-way to the proposed linear parkway as described in the attached terms of reference. This creek relocation is to be undertaken as one component of the proposed upgrading of Byrne Road to an industrial standard.

Your company is, therefore, invited to submit a formal proposal for the provision of these services as outlined in the attached terms of reference. It should be recognized that this is a preliminary feasibility study which will identify the requisite procedures and estimated cost of treating the relocated creek to an acceptable standard which satisfies the hydraulic, aesthetic and Fisheries Department criteria. Although this study will primarily deal with the question of preparing a realistic cost estimate for these works, extensive design work will not be required in order to achieve a reasonable order of accuracy for this cost estimate.

The Corporation has developed the attached form entitled "Estimate Sheet" and we would request that a completed copy of this form be an integral part of your proposal together with a resume of the personnel who will be involved in the project. I would also advise that this work will be undertaken according to a standard agreement as per the attached copy.

The deadline for the receipt of your proposal is 1979 May 27.

Yours truly,

PB/sam  
Attachments

A. L. Parr  
DIRECTOR OF PLANNING

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11

1979 May 10

The attached letter and attachments were sent out to the following Landscape Architect firms:

1. Eikos Design Group Limited,  
Art Cowie - Managing Director,  
993 West 8th Avenue,  
Vancouver, B. C. 738-3124
2. Mr. Clive Justice,  
Justice & Webb Landscape Architects,  
6434 West Boulevard,  
Vancouver, B. C. 261-1341
3. John Lantzius & Associates Limited,  
1290 Homer Street,  
Vancouver, B. C. 688-6761
4. The Pacific Landplan  
Collaborative Limited,  
Mr. David Reid,  
673 Homer Street,  
Vancouver, B. C. 669-3434
5. Ron Rule Landscape Architects,  
1727 West 2nd Avenue,  
Vancouver, B. C. 733-3213
6. Tattersfield Associates Limited,  
1008 Homer Street,  
Vancouver, B. C. 685-6484
7. Don Vaughan & Associates Limited,  
1152 Mainland Street,  
Vancouver, B. C. 685-0366

The following Municipal Departments were also sent a copy of this letter and the attachments:

Parks and Recreation Administrator  
Municipal Solicitor  
Municipal Engineer

1979 May 17

*Also sent copies to: Richard Woodch. The design architect  
2396 Kingsway, Vancouver, B.C.*

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11

PROPOSAL FOR CONSULTING STUDY OF BYRNE ROAD UPGRADING -  
RELOCATION OF BYRNE CREEK

145

1979 May 07

Terms of Reference For Preliminary Study By A Landscape Architect

The Corporation of the District of Burnaby has engaged McElhanney Surveying and Engineering Limited to provide the engineering services for a comprehensive study of the methods and standards for constructing the services requisite to upgrading Byrne Road to an industrial standard, including a cost estimate of these services.

One of the components of this study pertains to the proposed relocation of Byrne Creek from the existing road right-of-way to the proposed linear parkway west of Byrne Road. The terms of reference for McElhanney Surveying and Engineering Limited are noted in the attached Manager's Report No. 26 which was received by the Municipal Council on 1979 April 02.

You will note in these terms of reference that the consultant is to maintain a close liaison with a Landscape Architect as it is the Municipality's intention to construct a facility which is simple and natural, but at the same time, satisfies the hydraulic, aesthetic and Fisheries Department criteria.

The Landscape Architect will not function as a sub-consultant to the Engineering Consultant, but rather will work in concert to produce a mutually satisfactory solution to the design of the relocated creek channel. Preliminary cost estimates will be required for the landscape component of the works including separate material costs and installation costs.

Other specific items which need to be considered are as follows:

1. Initiate and maintain a liaison with the Fish and Wildlife Branch of the Ministry of Recreation and Conservation, 4240 Manor Street, Burnaby, B. C. V5G 1B2. The appropriate contact person in this regard is Susan Latimer, Habitat Protection Technician, telephone 435-4137.
2. Maintain a liaison with Municipal staff as follows:
  - (a) Parks and Recreation Department -  
Barry Elliot, Technical Assistant, 294-7129
  - (b) Engineering Department -  
Vic Wiebe, Design Engineer, 294-7446
  - (c) Planning Department -  
Peter Bloxham, Planner, 294-7288
3. Scope - the relocated channel will need to provide for a suitable fish habitat, while at the same time satisfying the drainage requirements of the Municipality including the provision of setback dykes to maintain flood control. The creek will be located in the future linear parkway as illustrated on the attached Figure A. The geometry of this parkway varies and therefore, the design solution must reflect this variation. It is not the Municipality's intent to construct a pedestrian pathway along this parkway at this time, however, the design solution should provide the opportunity for this facility to be constructed in the future. Conceivably, it could be located on the top of the setback dykes.

...../2

4. Stream Configuration - investigate the potential for a meandering effect within the limits of the parkway (or within the limits of the setback dykes). The design should provide for adequate ponding according to the Fisheries criteria for fish rearing. The only opportunity for major ponding would appear to be within the area designated for the proposed Golf Course. This ponding should not alienate any substantial area of land required for the proposed golf course. The use of small dams or stream enhancement devices should be investigated for minor ponding or to create a ripple and calm effect in strategic locations.
5. Fish Enhancement - in this regard, the Fish and Wildlife Branch will provide direction. The preliminary discussions have indicated that the relocated channel will most likely be used primarily for the passage of fish with spawning taking place upstream (north of Marine Drive). The design of the ponds will need to provide for a suitable rearing habitat. Consideration must be given to the passage of fish through (or around) the proposed floodgate at the confluence of Byrne Creek and the Fraser River.
6. Vegetation - vegetation types should be recommended which will provide for bank stabilization, be native or suitable to the habitat, and promote fish rearing. In the event that unusual or special maintenance procedures will be required, those should be specified. For example, since it is proposed to create a generally natural environment, appropriate steps may need to be taken to promote the regrowth of natural vegetation as well as vegetation planted.
7. Materials - the selection of construction materials should be at the discretion of the Engineering Consultant within the terms of reference as outlined. The shaping and configuration of these materials should be determined by the Landscape Architect in concert with the Engineering Consultant. Consideration should be given to using impervious materials in the setback dykes to minimize leaching from adjacent future landfill sites.
8. Drainage - the prime responsibility for drainage improvements lies with the Engineering Consultant as specified in their terms of reference. Consideration should be given to the use of procedures which limit drainage outfalls and provide suitable grease and oil interceptors. Where culverts are required on the relocated channel, they must be suitable for the passage of fish.
9. Projected Cost - a preliminary estimate of the costs associated with the supply and installation of the landscape component of the creek design should be provided.
10. A recommendation should be provided on the length of time required to firmly establish the plant material and to stabilize the banks, etc. before the channel is activated.

The Landscape Architect's involvement in the design will be to establish the aesthetic criteria to meet the engineering solutions which will be established by McElhanney Surveying and Engineering Limited. A high degree of co-operation will, therefore, be required with all parties involved in the preliminary design process. It is envisaged that, upon acceptance of the preliminary study on the upgrading of Byrne Road and the creek relocation, a Landscape Architect will be engaged to expand upon the preliminary recommendations and procedures.

PROPOSAL FOR CONSULTANT STUDY OF  
BYRNE ROAD UPGRADING - RELOCATION  
OF BYRNE CREEK.....PAGE 3.....

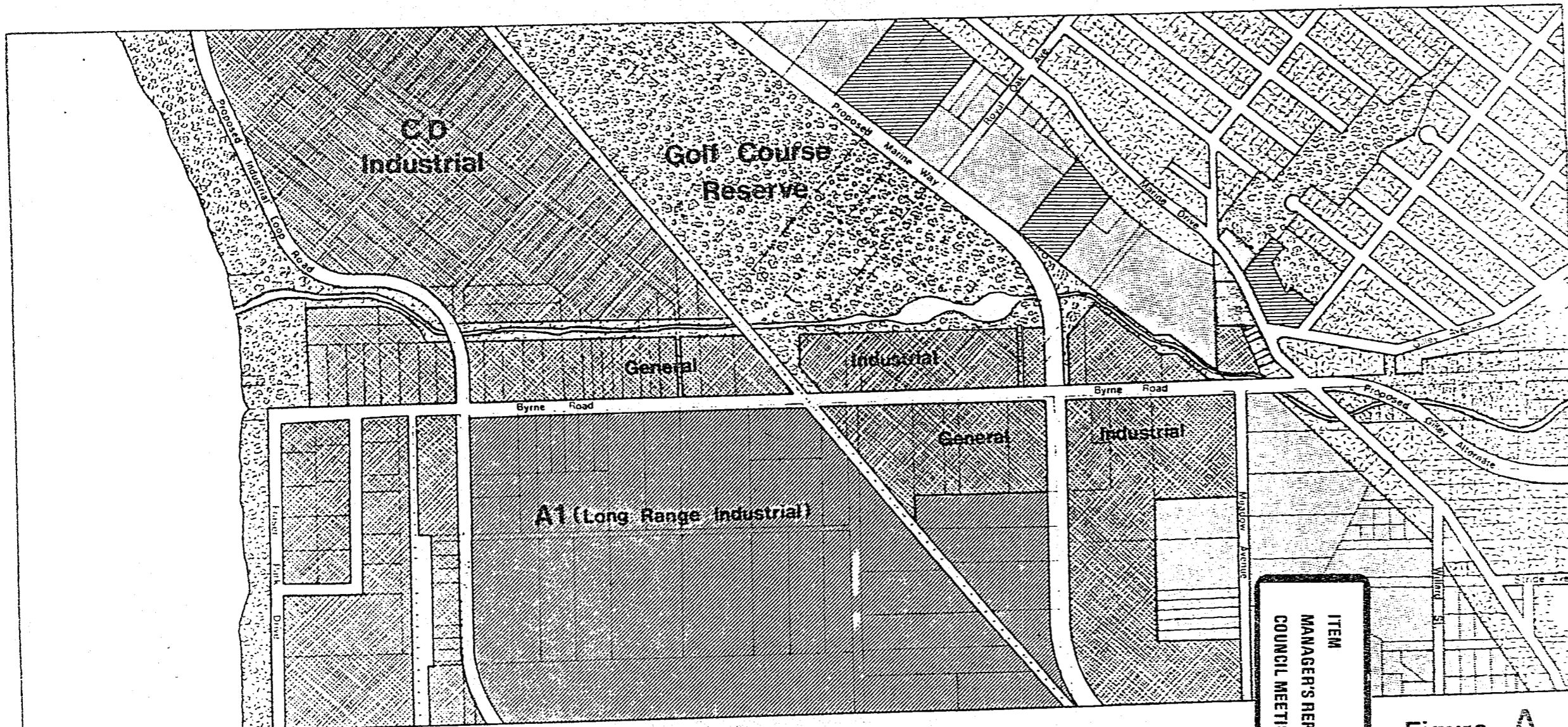
ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11

The preceding outline, while intended to establish certain design criteria, will need to be modified and expanded upon by the Landscape Architect and other factors which are found to be relevant throughout the preliminary design process expanded upon.


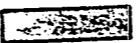
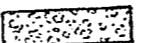
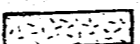
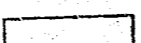
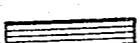


PB:BE/sam  
Attachments







Byrne Road Industrial Area  
**Land Use Plan**

- |   |                       |   |                                    |
|---|-----------------------|---|------------------------------------|
|  | Industrial            |  | Commercial                         |
|  | Park                  |  | Residential                        |
|  | Agriculture           |  | Institutional                      |
|  | Long Range Industrial |  | Proposed Relocation of Byrne Creek |

ITEM  
 MANAGER'S REPORT NO. 41  
 COUNCIL MEETING 1979 06 11

Figure A



1978 June

145

ITEM	13	ITEM	11
MANAGER'S REPORT NO.	41	MANAGER'S REPORT NO.	26
COUNCIL MEETING	1979 06 11	COUNCIL MEETING	1979 04 02

RE: ENGINEERING SERVICES FOR A PRELIMINARY STUDY TO UPGRADE BYRNE ROAD  
 (ITEM 11, REPORT NO. 30, 1978 NOVEMBER 14)  
 (ITEM 20, REPORT NO. 87, 1978 DECEMBER 11)  
 (ITEM 15, REPORT NO. 03, 1979 JANUARY 29)

Following is a report from the Municipal Engineer regarding proposals which have been received from engineering consultants for the preparation of a preliminary design and cost estimate for the upgrading of Byrne Road.

As noted in the last report which Council received on this matter on January 29, it is intended to have the cost of the subject study included in the 1979 Capital Improvement Program prior to the final adoption of the budget in May. The final detailed engineering design is not expected to proceed before 1980 and the costs for this final design phase would be included in the 1980 budget.

RECOMMENDATION:

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

\* \* \* \* \*

TO: MUNICIPAL MANAGER 79 03 28  
 FROM: MUNICIPAL ENGINEER  
 SUBJECT: ENGINEERING SERVICES FOR PRELIMINARY STUDY TO UPGRADE BYRNE ROAD

RECOMMENDATION:

1. THAT the Corporation of Burnaby enter into an Engineering Agreement with McElhanney Surveying and Engineering Ltd. to provide the engineering services as outlined in the Municipal Engineer's terms of reference and in accordance with the Consultant's proposal dated 1979 March 21 for fees estimated to be \$17,773.

REPORT

At their meeting of 1979 January 29, Council authorized the Municipal Engineer to prepare the terms of reference for engaging an Engineering Consultant to prepare a preliminary design which will establish the method and standards for constructing the services requisite to upgrading Byrne Road including a cost estimate of these services and further authorized the Municipal Engineer to invite proposals for the preparation of this preliminary design and cost estimate.

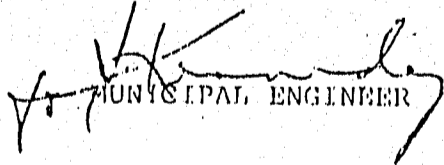
Attached hereto is a copy of the Municipal Engineer's invitation, including the terms of reference, which was sent to four reputable Engineering Consultants. Proposals have now been received from each of these Consultants and a brief summary of their proposal and fee structure is as follows:

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11

ITEM	11
MANAGER'S REPORT NO.	26
COUNCIL MEETING	1979 04 02

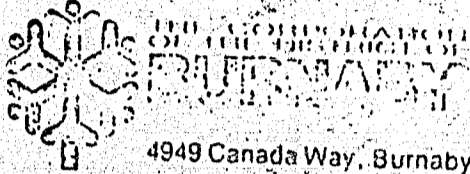
- 151
1. Underwood McLellan (1977) Ltd. - This proposal outlined in considerable detail their methodology for this study as well as a concise summary of the scope of the project. It also included a work schedule bar chart which would see this study completed within a three month period as well as a rather detailed estimate sheet including staff personnel, subconsultants, and the associated fees for these people. Their total estimate of fees was \$33,000 of which \$3,000 was allocated for a landscape architect which was not required in the original terms of reference.
  2. DeLeuw Cather, Canada Ltd. - This proposal addressed itself to each item within the given terms of reference and showed, by means of a work flow diagram, how they would complete the various facets within a 15 week period. Their proposal included a complete breakdown of staff and subconsultants complete with estimated fees totaling \$29,800.
  3. McElhanney Surveying & Engineering Ltd. - Their proposal clearly indicates that they fully understand all facets of the terms of reference and that they are prepared to complete this study for a fee estimated at \$17,773. This fee includes the fee for their geotechnical subconsultant.
  4. Robert F. Binnie Ltd. - This proposal was presented as a two stage proposal in which stage 1 consisted of a minimum amount of work required to assess the cost of constructing the necessary improvements based on preliminary studies only. Stage 2 would be necessary to fully comply with the comprehensive studies outlined in the terms of reference and consequently would result in a more accurate estimate of the costs of completing the various facets of the project. Stage 2 would also deal with detailed recommendations regarding design requirements and construction procedures. The estimated fees for Stage 1 is \$11,384.40 and the total estimated fees for Stage 2 are \$29,514.60 for a total fee of \$40,899.

Having carefully reviewed these four proposals it my conclusion that each of the consultants is competent to perform the work outlined in our terms of reference; however, I am unable to consider Stage 1 of proposal No. 4 as a viable and independent proposal on the basis that too many details are left to Stage 2. Based on this, therefore, it is my recommendation that the Corporation of Burnaby enter into an Engineering Agreement with McElhanney Surveying and Engineering Ltd. to provide the engineering services as outlined in the Municipal Engineer's terms of reference and in accordance with the Consultant's proposal dated 1979 March 21 for fees estimated to be \$17,773.

  
MUNICIPAL ENGINEER

VNW/ch  
Atts.

- c.c. ( ) Director of Planning  
( ) Parks and Recreation Administrator  
( ) Municipal Treasurer



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

Telephone (604) 294-7460

79 03 08

McElhanney Surveying & Engineering Ltd.  
13160 - 88th Avenue  
Surrey, B.C.  
V3W 3K3

Attention: Mr. L. Staples, P. Eng.

Dear Sirs:

Re: ENGINEERING SERVICES FOR PRELIMINARY  
STUDY TO UPGRADE BYRNE ROAD

Subsequent to our earlier correspondence dated 1979 February 23 and our interview last week, I would hereby invite your company to submit a formal proposal for engineering services to prepare a comprehensive preliminary study of methods and standards, including cost estimates, for the upgrading of Byrne Road between Marine Drive and the Fraser River foreshore.

The terms of reference for this study are as attached to our earlier correspondence dated 1979 February 23. As a result of our interviews I would hereby advise that greater emphasis should be placed on the fact that this is a preliminary feasibility study which will identify the estimated cost to construct the requisite services for the upgrading of Byrne Road. Although this study will primarily deal with the question of preparing a realistic cost estimate for these works we do not want to mislead you into believing that extensive design work is necessary in order to achieve a reasonable order of accuracy for this cost estimate.

Our interviews also indicated to us that due to the scope and diversity of this project we should introduce some form of standardization for the submission of your proposal. In this regard we have developed the enclosed form entitled "Estimate Sheet" and would respectfully request that a completed copy of this form be an integral part of your proposal. I would also advise that this engineering work will be done under a standard engineering agreement as per the copy attached.

In order to provide you sufficient time to prepare and submit your proposal we have set our deadline for receipt of proposals at 1979 March 21.

Yours truly,

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

VNW/ch  
Att.

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

152

ITEM	11
MANAGER'S REPORT NO.	26
COUNCIL MEETING	1979 04 02

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11

ITEM	11
MANAGER'S REPORT NO.	26
COUNCIL MEETING	1979 04 02

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11

153

BYRNE ROAD UPGRADING

Terms of Reference for Preliminary Study

To prepare a comprehensive study which will establish the methods and standards for constructing the services requisite to upgrading Byrne Road, including a cost estimate of these services. This project has been the subject of three separate reports to our Municipal Council and copies of each of these reports are attached for your information.

More specifically, this preliminary study shall make specific recommendations or alternatives and cost estimates for the following:

1. **Byrne Creek:** The existing Byrne Creek is to be relocated in a proposed linear parkway west of Byrne Road. In assessing this relocation the Consultant will have to deal with the construction problems due to constructing a new channel in poor ground; the type of bank protection; the method of slope stability; the hydraulics and the criteria outlined by the Fisheries Department. In addition, the Consultant will have to maintain a close liaison with a landscape architect as it is the Municipality's intention to construct a facility which is simple and natural but at the same time satisfies the hydraulic, aesthetic and Fisheries Department criteria. For your information we have enclosed a preliminary sketch (Drawing L-1840) showing a proposed cross-section of Sketch No. 2 showing some ideas with regard to landscaping. These are strictly conceptual and may very well have to be revised when all criteria have been considered.
2. **Storm Sewers:** A local storm sewer for the street drainage as well as the collection of the drainage from the adjacent properties will be required to be constructed within the Byrne Road street allowance. The Consultant should address himself to the question as to whether or not the existing Byrne Creek channel can be used as a trench for this local storm sewer.

(cont'd)

ITEM	11
MANAGER'S REPORT NO.	26
COUNCIL MEETING	1979 04 02

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 05 11

3. Sanitary Sewer:

The entire length of Byrne Road is currently unsewered except for the extreme southerly limit which is served by a Greater Vancouver Sewerage and Drainage District's trunk sewer which traverses the Byrne Road right-of-way. In considering the design of the sanitary facilities to serve this area, the Consultant shall review such alternatives as a gravity collection system, a vacuum system, a pressurized system or any combination thereof. As additional comment with regard to a gravity system, the Consultant should investigate the viability of twining the sanitary sewer with the storm sewer thereby taking advantage of common pile supports in the existing Byrne Creek channel.

4. Road Construction:

The required road standard will be a 14 metre wide industrial standard with curb and gutter, boulevard grassing, tree planting and sidewalks on both sides. The sidewalks will be a standard 1.5 metres wide located 0.5 of a metre behind the face of curb. This will provide a utility strip to accommodate ornamental lamp standards. The Consultant should also recognize the likelihood of having to allow for left turn bays at the intersection of Byrne Road and the future Marine Way and possibly at the intersection of Byrne and the future proposed industrial loop road. In addition to the aforementioned locations there will also be a need for additional lanes at Marine Drive. Recognizing the poor ground and the fact that this roadway must be flood-proofed, the Consultant must review alternative methods of construction for the road cross-section and must determine the necessary right-of-way required to support the recommended road cross-section. He must also deal with the problems of adding additional loading to existing underground facilities such as a water main and a jet fuel line. The Consultant should also recommend a specific phasing of the various components involved in the road-way cross-section (for example, should the concrete works such as the sidewalks and curb and gutter be constructed after the road cross-section has been established and been in use for a period of six months to a year).

(cont'd)

ITEM	11
MANAGER'S REPORT NO.	26
COUNCIL MEETING	1979 04 02

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11

- 3 -

155

5. Street Lighting: The Ornamental Street Lighting for this road will have to recognize that the bases for the standards will be founded in poor ground.
6. Other Utilities: These will include such utilities as B.C. Hydro Power and Gas, B.C. Tel, and any oil or jet fuel lines. With respect to these, the Consultant will be responsible for liaisoning directly with the respective utility agencies with regard to their criteria for protection of their utilities.

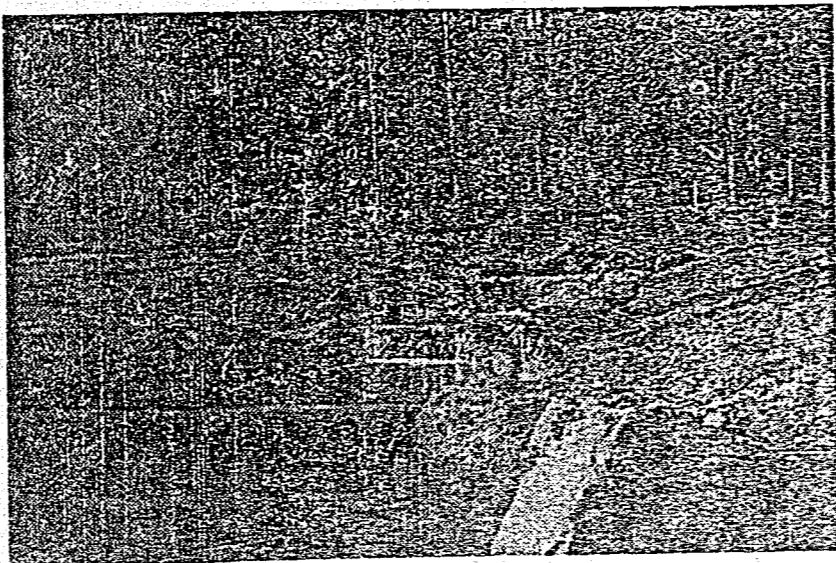
In summary the Corporation is looking for a comprehensive preliminary study of the most viable and economical solution to the overall upgrading of Byrne Road. As this total project will be a major undertaking it is proposed that the construction be phased over a number of years.

In this respect we are looking for a firm recommendation as to the most logical grouping of construction components and the sequencing of these components. As one of the major items related to this project is the concern of the environmental impact of this project, we cannot emphasize strongly enough the need for the Consultant to recognize the criteria established by the Department of Fisheries. In this regard the staff has had a number of preliminary discussions with the Fisheries Department and would be willing to share what information we have available.

VNW/ch  
Att.



byrne  
creek  
relocation:  
a proposal



ITEM 13  
MANAGER'S REPORT NO. 41  
COUNCIL MEETING 1979 06 11

pacific landplan  
landscape architects

May 25, 1979

The Corporation of the District of Burnaby,  
4949 Canada Way,  
Burnaby, B.C.  
V5G 1M2

Attention: Mr. A.L. Parr,  
Director of Planning

Re: Services for Preliminary Study  
on Proposed Relocation of Byrne  
Creek

Dear Sir:

It is our pleasure to respond to your invitation for proposals regarding landscape architectural services on the above project.

I respectfully submit that our firm is eminently qualified to assist you on this project.

We have direct experience in planning, design and construction supervision of waterway projects at Stanley Park Zoo in Vancouver, North Road Plaza II in Burnaby, Controlled Foods at Seymour Creek in North Vancouver (current), and Point Pelee National Park in Ontario, and are very aware of the problems and challenges of working with water.

We have proven our ability to work co-operatively with government staff, consultants, and the public with the Vancouver Parks Board, Parks Canada, Ontario Hydro, and the City of Guelph, and have produced results from these relationships.

Landplan (B.C. and Ontario) has a wide range of experience in open space and recreation planning and design, and in environmental planning. We have a landscape architect/ecologist on staff in Ontario, a planner on staff in B.C. and have been in touch regarding this project with a fisheries biologist in B.C. who will assist us if required.

pacific landplan  
collaborative limited

landscape architects  
land planners

Cameron Man, B.Arch., M.L.A.  
Ronald Stoltz, B.S.L.A., M.L.A.  
Owen R. Scott, B.Sc. Agr., M.L.A.  
Wendy MacDonald, B.Sc. Agr., B.L.A.  
Rod MacDonald, B.L.A.  
David Reid, B.L.A.

673 Homer St.,  
Vancouver, B.C.,  
V6B 2V8  
604-669-3434

in Guelph, Ontario,  
landplan collaborative limited

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11

157

Our firm has had responsibility for landscape design and grading for several major industrial parks in the Lower Mainland, and can relate this experience to the long term developemnt of the Big Bend Area. Through our work in the private sector we are accustomed to finding economical solutions and to giving accurate cost estimates.

We are currently monitoring test plots of some 30 species of wildflower seed available locally, to determine the best species and to predict the success of hydroseeded wildflower mixes for naturalizing projects such as yours. Results of these tests will be available during your project.

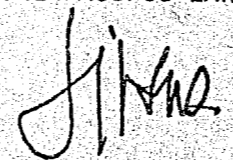
Most important, we care about the quality of our work.

We are prepared to meet the requirements of the terms of reference for an estimated fee of \$5,575.00. Work could begin immediately, and proceed on a mutually agreeable schedule.

Thank you for considering our firm.

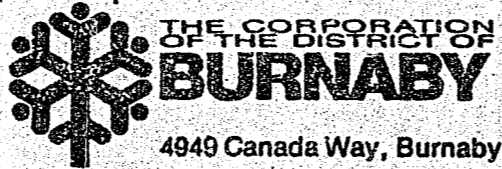
Yours sincerely,

THE PACIFIC LANDPLAN COLLABORATIVE LTD.

  
David J. Reid, Landscape Architect  
Principal



ITEM 13  
MANAGER'S REPORT NO. 41  
COUNCIL MEETING 1979 06 11



THE CORPORATION  
OF THE DISTRICT OF  
**BURNABY**

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

Planning Department

Telephone (604) 294-7400

1979 May 08

Mr. David Reid,  
The Pacific Landplan  
Collaborative Limited,  
673 Homer Street,  
Vancouver, B. C.

Dear Sirs:

Re: Services For Preliminary Study  
On Proposed Relocation of  
Byrne Creek

The Corporation of the District of Burnaby intends to engage a Landscape Architect to assist in the preparation of a comprehensive preliminary study of the methods and standards, including cost estimates, for the relocation of Byrne Creek off of the Byrne Road right-of-way to the proposed linear parkway as described in the attached terms of reference. This creek relocation is to be undertaken as one component of the proposed upgrading of Byrne Road to an industrial standard.

Your company is, therefore, invited to submit a formal proposal for the provision of these services as outlined in the attached terms of reference. It should be recognized that this is a preliminary feasibility study which will identify the requisite procedures and estimated cost of treating the relocated creek to an acceptable standard which satisfies the hydraulic, aesthetic and Fisheries Department criteria. Although this study will primarily deal with the question of preparing a realistic cost estimate for these works, extensive design work will not be required in order to achieve a reasonable order of accuracy for this cost estimate.

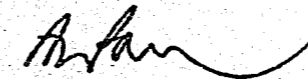
ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11

59

The Corporation has developed the attached form entitled "Estimate Sheet" and we would request that a completed copy of this form be an integral part of your proposal together with a resume of the personnel who will be involved in the project. I would also advise that this work will be undertaken according to a standard agreement as per the attached copy.

The deadline for the receipt of your proposal is 1979 May 27.

Yours truly,



A. L. Parr  
DIRECTOR OF PLANNING

PB/sam  
Attachments

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11

problem

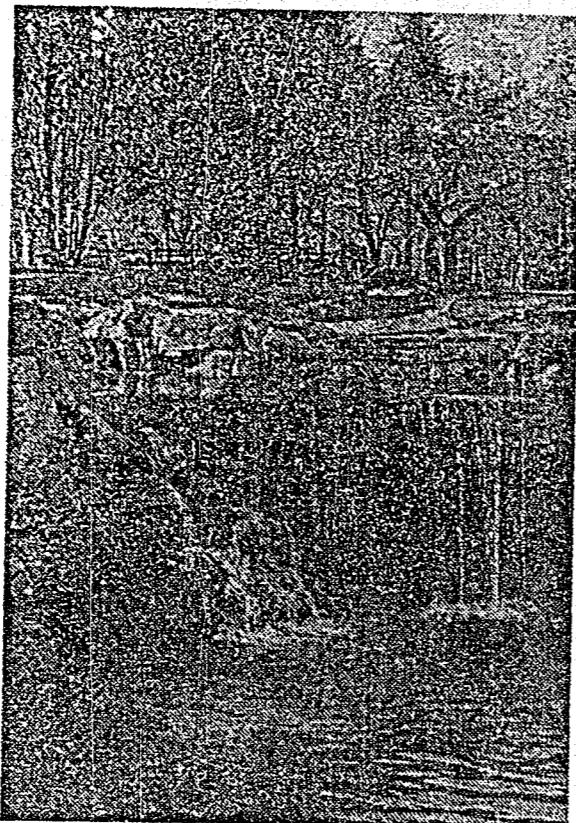
process

product

personnel

161

ITEM 13  
MANAGER'S REPORT NO. 41  
COUNCIL MEETING 1979 06 11



'aesthetic character' of the  
Byrne Creek Realignment?

photographs represent streamworks  
under construction by Pacific Landplan

#### THE PROBLEM

All rivers, creeks and streams have a life of their own and a special significance to man particularly in an urban setting. Yet we have neglected to care for these urban watercourses and their immediate environs. We have repressed our affinity to the water by insensitive planning that has reduced our access to the waters edge and consequently limited our ability to celebrate this natural asset.

It is evident from site reconnaissance that little of the Byrne Creek environment within the study area is either unique or of outstanding quality in its present condition. From our interpretation of the terms of reference the Landplan team has identified a number of key objectives with respect to the proposed relocation of the Byrne Creek, namely:

to economically relocate the Byrne Creek in accordance with accepted engineering standards

to re-establish the Byrne Creek as a bio-physical environment capable of functioning as a 'living stream'.

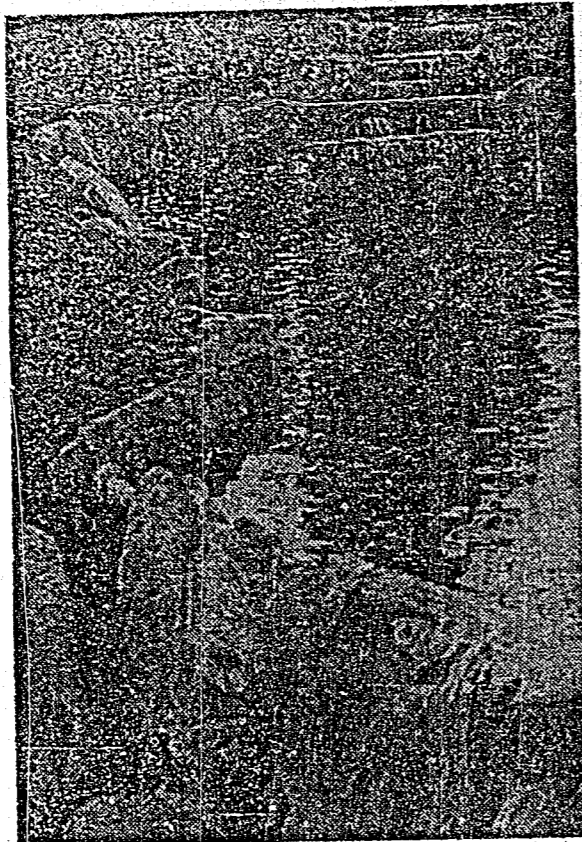
to develop the Byrne Creek with recreation and open space opportunities programmed as options to be developed in the future at the discretion of the municipality

to produce guidelines which will direct future urban growth, notably industrial development, on adjacent lands without jeopardizing either the biological environment or future recreational opportunities.

to produce general recommendations concerning the management and monitoring of the Byrne Creek watershed.

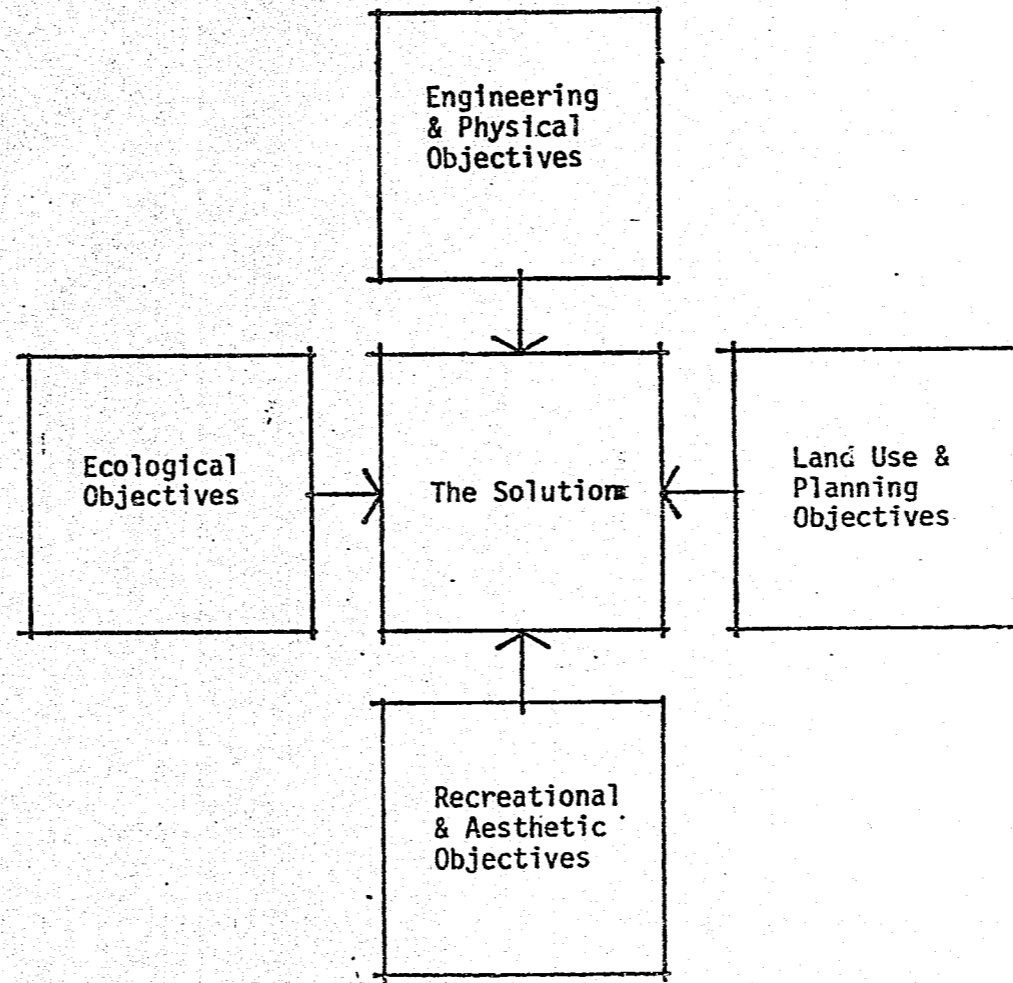
The solution to this problem involves the satisfactory resolution of the conflicts inherent in these objectives.

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11



pond size and configuration?

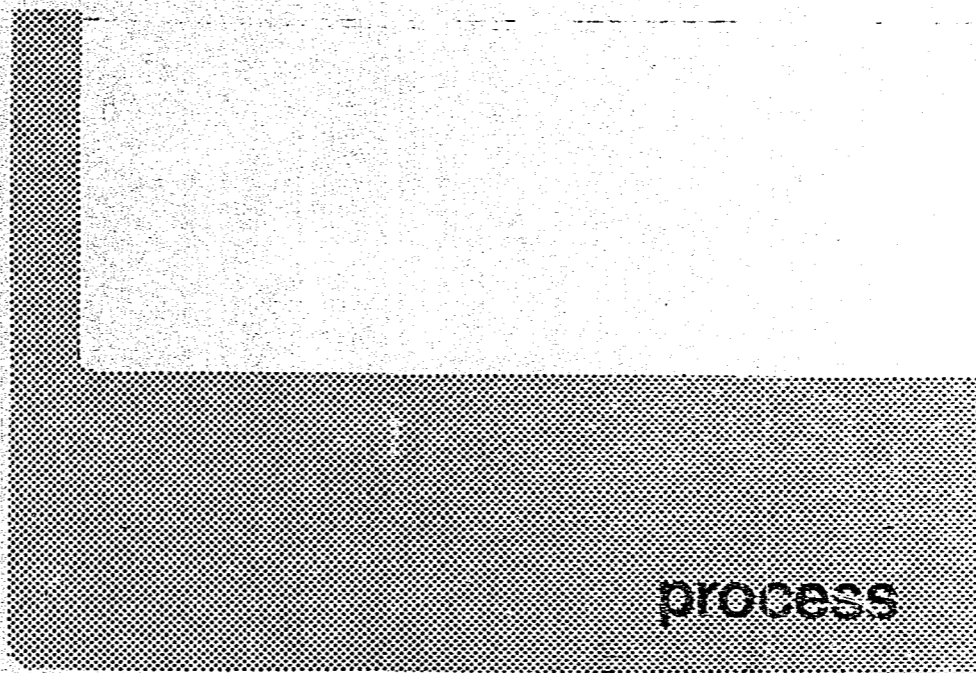
THE PROBLEM - A SUMMARY



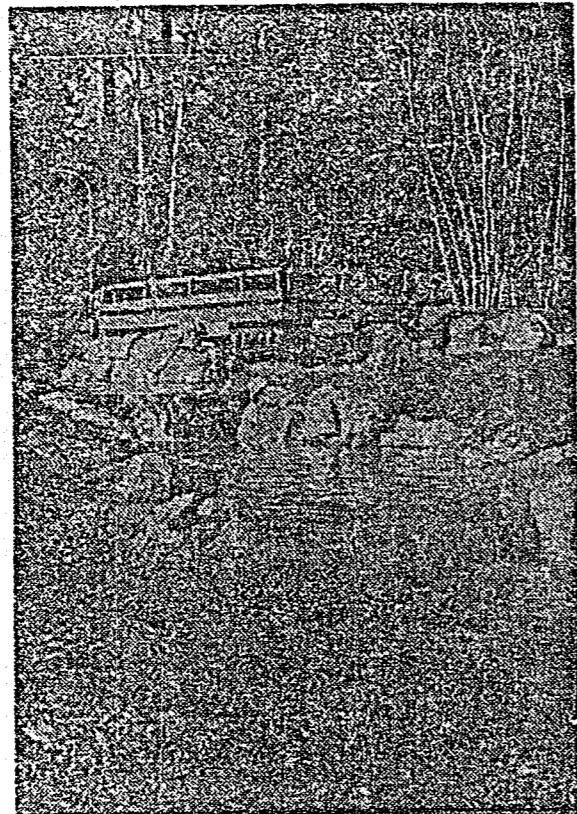
ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11



ITEM 13  
MANAGER'S REPORT NO. 41  
COUNCIL MEETING 1979 06 11



process



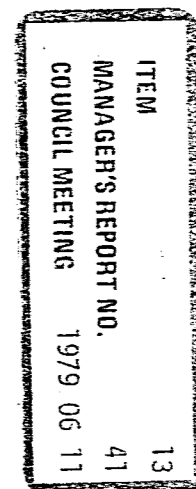
aesthetic guidelines for  
engineering structures

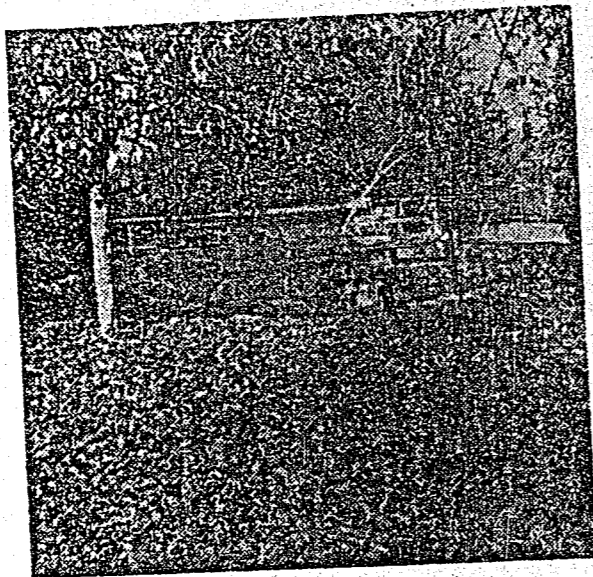
photographs represent streamworks under  
construction by Pacific Landplan

## THE PROCESS

The Landplan team anticipates the following phases throughout the study:

- |                           |   |
|---------------------------|---|
| Start-Up                  | <ul style="list-style-type: none"> <li>- initial briefing with the client and all study team members</li> <li>- review the terms of reference and determine the final scope of the study</li> <li>- assign tasks</li> </ul>                         |
| Site Reconnaissance       | <ul style="list-style-type: none"> <li>- inventory existing site conditions from air photos together with on-site surveys</li> <li>- review existing municipal and provincial data on the study area</li> </ul>                                     |
| Analysis                  | <ul style="list-style-type: none"> <li>- identify engineering, bio-physical, recreational and future land use development constraints and opportunities</li> </ul>  |
| Client Review             | <ul style="list-style-type: none"> <li>- establish development priorities for the proposed relocation of the Byrne Creek</li> </ul>   |
| Schematic Master Planning | <ul style="list-style-type: none"> <li>- articulate in plan form the specific alignment and configuration of ponds for the proposed creek relocation</li> </ul>   |
| Client Review             | <ul style="list-style-type: none"> <li>- refine the proposed stream bed alignment</li> <li>- review the proposed construction techniques and the materials to be used</li> <li>- check municipal and provincial policy for any conflicts</li> </ul> |





maintenance considerations?

#### Draft Planning

- develop typical stream cross-sections
- detail special conditions such as engineering structures and access points
- identify minimum aesthetic and engineering standards for future development adjacent to the proposed stream realignment
- identify minimum streetscape standards for major transport corridors through the study area
- establish a revegetation program for the stream relocation right-of-way
- develop a phasing plan and an implementation program
- perform a detailed quantity take-off and estimate the cost of the proposed capital improvements
- make general recommendations concerning the management and monitoring of the Byrne Creek watershed

#### Client Review

- review draft plan with special attention given to the anticipated capital improvements program and the phasing plan

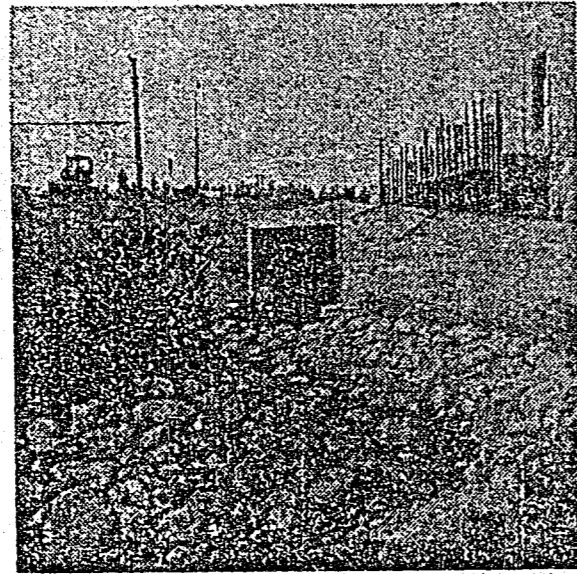
#### Report Production

- incorporate essential background data - the master plan for the Byrne Creek relocation - future development criteria and guidelines, final phasing and cost estimates together with general recommendations into a development strategy for the relocation of the Byrne Creek
- produce 25 copies of these development strategies

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11

Final Presentation

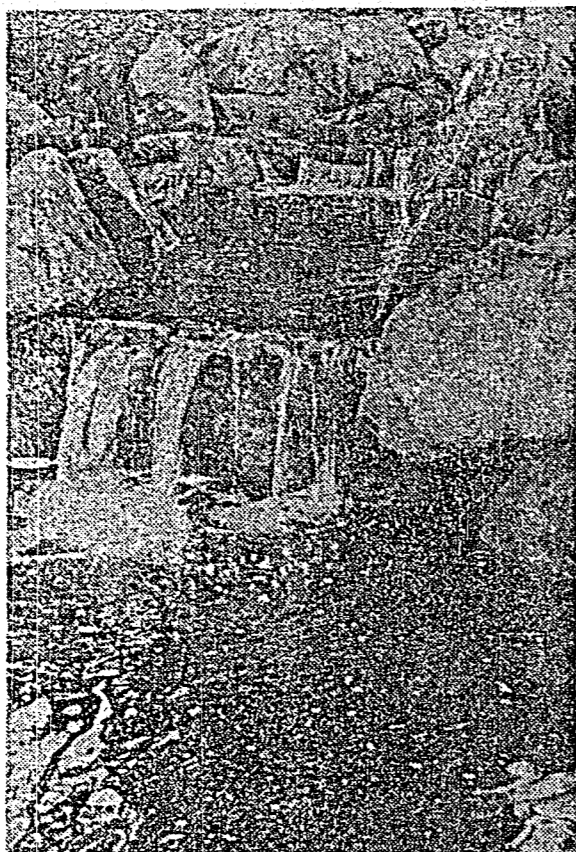
- present the development strategy for the relocation of the Byrne Creek.



development guidelines for future development adjacent to the Byrne Creek?

107

ITEM 13  
MANAGER'S REPORT NO. 41  
COUNCIL MEETING 1979 06 11



edge condition and erosion control?

photographs represent streamworks under construction by Pacific Landplan

#### THE SCOPE OF SERVICE

Since the problem requires a co-ordinated approach the problem solving process will be greatly enhanced by a free and open exchange of information between the individual study team members. Within the process previously identified the Landplan team suggests the following scope of service for the landscape architectural component of the study.

A. In concert with municipal staff to:

identify recreational and open space opportunities presented by the relocation of Byrne Creek

establish recreational priorities which anticipate future demand and fit the context of the study area development plan

develop minimum aesthetic guidelines for future development of adjacent lands including the streetscape of the proposed Byrne Road extension, the proposed Industrial Loop Road and Marine Drive

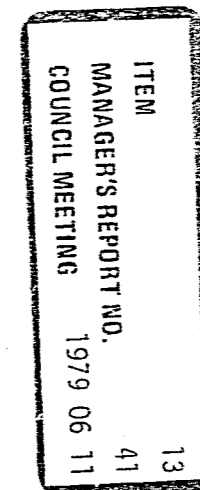
develop a phasing plan for recreation and open space development which parallels projected future demand and

establish the 'aesthetic character' of the Byrne Creek realignment using typical plans, cross-sections and perspective sketches.

B. In concert with the engineering consultant to:

determine alternative flood and erosion control measures, review construction techniques and material options

establish aesthetic criteria and typical solutions for stream design and engineering structures





service access & maintenance

determine the specific alignment and configuration of the stream within the watercourse right-of-way

assist in a quantity take-off and preliminary estimate of the capital improvements program

develop a critical path network for construction and refine the phasing plan, plus

establish guidelines for future utility and industrial development adjacent to the proposed new location of the Byrne Creek.

C. In concert with provincial fisheries and our own Fisheries biologist:

develop minimum bio-physical standards necessary for fish enhancement in the Byrne Creek and incorporate these standards into the design of the watercourse relocation

identify potential hazards to the ecosystem during the initial construction and as a result periodic maintenance incorporating mitigation techniques for such potential negative impacts

establish a revegetation program for the watercourse and adjacent lands, listing suitable candidate species

make general recommendations concerning the management of the Byrne Creek watershed and

formulate an approach to monitor the environmental quality of the Byrne Creek.

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11

ITEM 13  
MANAGER'S REPORT NO. 41  
COUNCIL MEETING 1979 06 11

product



bio-physical - water chemistry?

photographs represent streamworks under construction by Pacific Landplan

#### THE PRODUCT

The Landplan team is capable of carrying out the work schedule previously identified for a total budget of \$5,575.00. Our team is prepared to begin work immediately and will largely accept responsibility for the planning and layout design tasks associated with the Byrne Creek relocation.

We anticipate taking specific engineering, bio-physical and future land use planning criteria generated by others to produce a general layout plan and design for the Byrne Creek relocation.

A. The Landplan team will accept leading responsibility for the production of the following:

visual and recreational analysis of the study area

master planning of the stream realignment and configuration in sufficient detail to perform a general quantity take-off

general guidelines for the visual character of the Byrne Creek right-of-way, together with specific recommendations for special conditions such as access points

a revegetation program for the watercourse right-of-way listing suitable plant material by species

aesthetic guidelines for future development adjacent to the Byrne Creek right-of-way and

minimum streetscape standards for major roadway corridors which cross the study area and have visual impacts on the project.

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11

171





water quality - aesthetic considerations

B. The Landplan team anticipates input in concert with other team members for the production of the following:

aesthetic guidelines for engineering structures

a phasing plan for the project together with a critical path network for project implementation

a quantity take-off and preliminary cost estimate of the proposed capital improvement program

physical development guidelines for future land use adjacent to the Byrne Creek right-of-way

general recommendations concerning management of the Byrne Creek watershed

general recommendations concerning the establishment of an environmental monitoring program.

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11

ITEM 13  
MANAGER'S REPORT NO. 41  
COUNCIL MEETING 1979 06 11

personnel

## THE PERSONNEL AND EXPERIENCE

The successful consultant for this project will have to meet specific criteria to fulfil the tasks involved in this project.

### A. Team Work

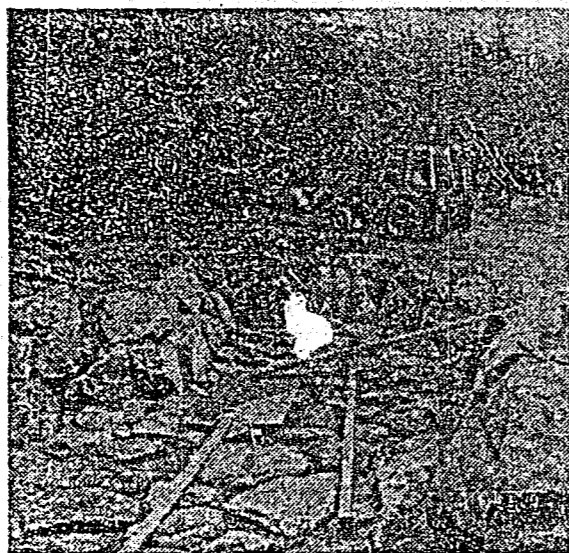
The Pacific Landplan Collaborative Ltd. is an established landscape architectural firm committed to the 'team approach' of problem solving with demonstrated experience in a variety of complex projects. We work closely with our clients and related consultants of all types. Our firm has successfully undertaken joint staff and consultant planning and construction projects with the Vancouver Parks Board over the last three years.

Reference: Mr. B. Breakwell, P. Eng.  
Facilities Development Manager  
Vancouver Parks Board  
Vancouver, B.C.  
(604) 681-1141  
Project: Stanley Park Zoo

### B. Project Experience with Water Oriented Problems

Our firm has been involved in a number of key projects directly related to the use and understanding of water in the landscape, namely:

The Stanley Park Zoo Master Plan  
Stanley Park Zoo Improvements Program Phase I - South Stream Complex  
Stanley Park Zoo Improvements Program Phase II - Station Plaza Children's Zoo and Associated Waterworks  
Red and Assinaboine River Confluence Urban Park, Winnipeg.  
Coquitlam River Quarries Master Plan, British Columbia  
North Road Plaza II - Commercial/Office Complex - Burnaby, B.C.



ecological impacts during construction

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photographs represent streamworks under construction by Pacific Landplan

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11

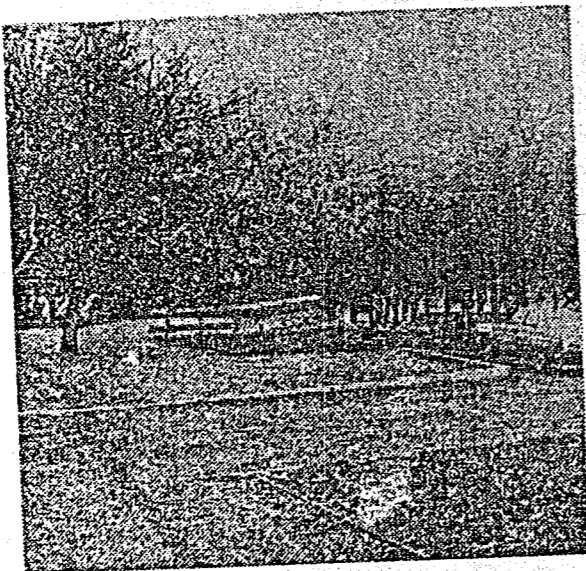
Control Foods International - Office/Restaurant Complex -  
North Vancouver, B.C.

Reference: same as above

C. Open Space/Recreation Planning and Design

The Landplan team has been involved in a variety of  
recreation and open space oriented projects including:

- Thunder Bay Visual and Recreation Resources Inventory  
Study, Ontario Hydro, Toronto
- Credit Valley Open Space Study, Mississauga, Ontario
- Harbourfront Park Environmental Guidelines for Recreational  
Development\*
- Coyote Hills Regional Park, Waterways Development,  
Freemont, California\*
- Lauder Recreation Park Competition (first prize)  
Reihen, Switzerland\*
- North Central Regional Visual and Recreational Resources  
Inventory, Ontario Hydro\*
- Campground Design for Pukaskwa National Park, Ontario
- Development Plan for Zimmerman Park, Burlington, Ontario
- North-North Dixie Community Streetscape/Noise Attenuation  
and Parks/Schools Design, Mississauga, Ontario
- Meadows Community Parks/Schools Design, Mississauga,  
Ontario
- Landscape for Doon Pioneer Village, Kitchener, Ontario
- Parks/Schools/Streetscape Design for Creditview  
Community, Mississauga, Ontario
- Crieff Development Opportunities for Presbyterian  
Church of Canada, Crieff, Ontario
- Point Pelee Master Plan for Parks Canada, Point Pelee,  
Ontario
- Park/Streetscape Design for Horvat Investments,  
Ottawa, Ontario
- Blue Mountain Ski Resort - Base Facilities Development -  
Collingwood, Ontario
- Kingston Bikeway Study - Kingston Ontario\*
- City of Toronto Waterfront Bikeway Development Plan,  
Toronto, Ontario\*



special conditions - access points?

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11

Reference: Mr. A. Vaughan  
Head Master Planner  
Parks Canada Central Region Office  
Cornwall, Ontario  
(613) 933-7951  
Project: Point Pelee National Park

D. Industrial Park Development

Our team has relevant project experience and is in tune with local scene in this area through our involvement in a number of large scale industrial park developments in the lower mainland, namely:

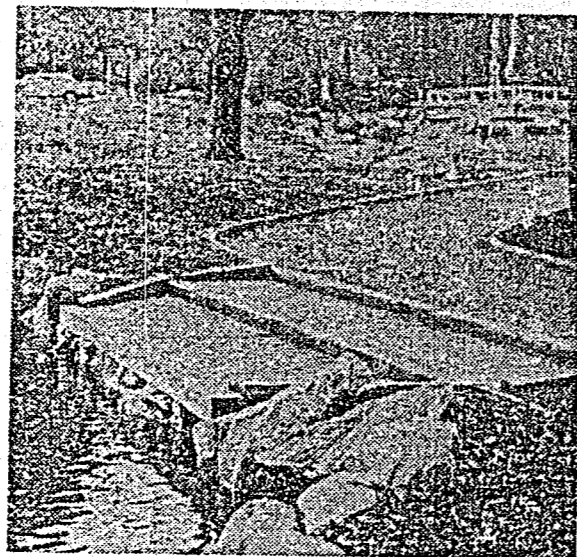
Imperial Square - Burnaby, B.C.  
Ledingham Industrial Park - Richmond, B.C.  
Riverside Industrial Park - Richmond, B.C.  
Acklands Ltd. - Burnaby & Clearbrook, B.C.

Reference: Mr. D. Paddack, P. Eng.  
General Manager  
Ledingham Construction Ltd.  
Vancouver, B.C.  
(604) 736-3373  
Projects: Ledingham Industrial Park  
Acklands Ltd.

E. Environmental Planning

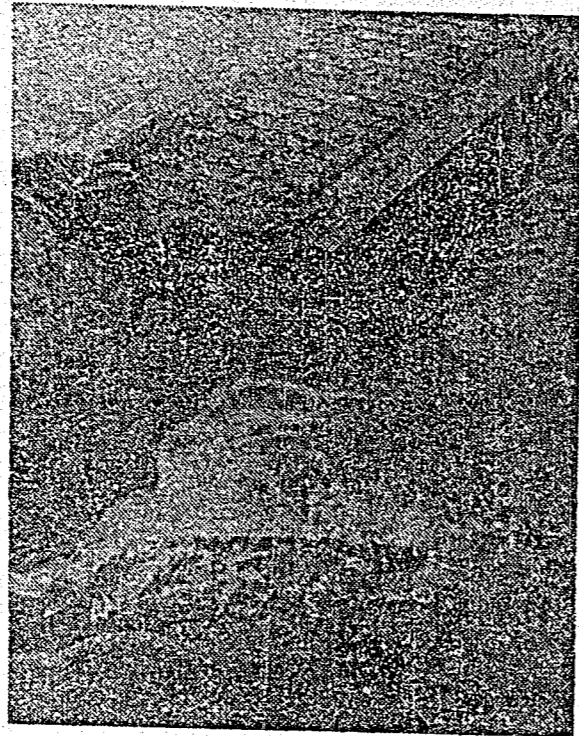
In addition to our project experience the Landplan team has a resident biologist/landscape architect on staff. Supplemental to our own staff we have access to other fisheries personnel. Project experience in this regard includes:

Southwestern Ontario Environmental Impact Task Force Study, Ontario Hydro, Toronto  
Thunder Bay Visual and Recreation Resources Inventory Study, Ontario Hydro, Toronto  
Environmental Analysis and Development Guidelines for British Properties, West Vancouver, British Columbia



recreational opportunities -  
pathways/bikeways?

ITEM	
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11



access to the water's edge

Noise Abatement Research along National Autobahns,  
Switzerland\*  
North Central Regional Visual and Recreational Resource  
Inventory, Ontario Hydro\*  
Northeastern Region Visual Resource Inventory, Ontario  
Hydro\*  
East Central Visual Resource Inventory, Ontario Hydro\*  
Southwest Region Visual Resources Inventory, Ontario  
Hydro\*  
Environmental Appraisal and Conceptual Landscape Plan  
for Stelco Industrial Park, Nanticoke, Ontario  
Corunna Community Development for Sifton Properties,  
Corunna, Ontario  
North-North Dixie Community Streetscape/Noise Attenuation  
and Parks/Schools Design, Mississauga, Ontario  
Hazelburn Farms Estate Residential Subdivision, Aurora,  
Ontario

Reference: Dr. D. Coleman, President  
Ecologistics Ltd.  
Waterloo, Ontario  
(519) 744-4448  
Project: Point Pelee National Park

\*Work completed by firm members while in the employ of others.

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11

THE PACIFIC LANDPLAN COLLABORATIVE LTD.

The Pacific Landplan Collaborative Ltd. has been established as a practice in Landscape Architecture and Land Planning in Vancouver, B. C. since January, 1977. It is a sister company to the Landplan Collaborative Ltd. based in Guelph, Ontario. Pacific Landplan currently has two full-time resident staff in Vancouver responsible for general landscape design services, and for co-ordination of the local involvement of other personnel. Up to five qualified professionals are available for B. C. projects.

Pacific Landplan offers a complete range of consulting services in Landscape Architecture, including: environmental impact studies; visual assessment; land planning and landscape master planning; full landscape design, construction drawings, specifications and field services for institutional, industrial, commercial, residential and recreational projects.

The Pacific Landplan team combines the talents of five principals and one support staff. Each has varied experience in Landscape Architecture and the group also includes supplementary backgrounds in planning, architecture, horticulture and regional visual assessment. This team will bring together professionals in such related fields as urban and regional planning, architecture, engineering, ecology, economics, sociology, etc. to form the optimum team to suit a client's needs.

Pacific Landplan is a group of complimentary individuals with a united interest: to apply the methods of planning and design to solve problems at the interface of man and the environment.

The team has a commitment to high quality design, and to progressive development of knowledge on the frontiers of Landscape Architecture. It strives for new approaches, techniques and innovative solutions, and includes a dynamic combination of varied experience, progressive attitude and continuous research.

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11

BRIAN GUZZI, Land Planner, Environmental Designer

EDUCATION: B.A., University of Toronto, 1972  
M.Pl., Queens University, 1975  
B.L.A., University of Guelph, 1977

Mr. Guzzi has been employed by municipal, regional and federal levels of government in both landscape design and planning capacities. These include the Central Waterfront Technical Committee - City of Toronto Planning Department; the Lakehead Regional Planning Board - Thunder Bay; Parks Canada - Kluane National Park, Haines Junction Yukon Territory; Ministry of State for Urban Affairs - Toronto.

After completing graduate work in Urban and Regional Planning, Mr. Guzzi was involved with the planning, design and implementation of bikeways across Canada, with a federal project sponsored by the Ministry of State for Urban Affairs. Just prior to returning to university in Landscape Architecture he had been employed by the Department of Indian and Northern Affairs, Parks Canada, carrying out inventory studies for Kluane National Park in the Yukon Territory. Summer employment with the Lakehead Planning Board in Thunder Bay, Ontario allowed him to become involved in planning urban fringe development.

Project experience has included the design of a waterfront bikeway for the City of Toronto; the Kingston Bikeway Study, a master plan for bicycle facilities in the City of Kingston; playground, residential and industrial landscape design in the City of Guelph; the Lakehead Mobile Home Study; Conservation Area Master Planning in southern Ontario; and the administration of the Canadian Urban Bikeway Design Competition, a \$27,000.00 federal project.

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11



DAVID HUYCKE Landscape Designer, Env. Planner  
EDUCATION Bachelor of Landscape Architecture  
University of Guelph, 1978

Mr. Huycke has had practical experience in all aspects of landscape construction while employed as a foreman/supervisor with a major landscape contractor in Ontario. Projects he was involved with range from highway planting to large scale residential recreation and institutional developments in southern and eastern Ontario.

Key projects include:

- : extensive planting of Hwy. # 417 (Ottawa-Montreal)
- : Neighbourhood Parks (Trenton, Ontario)
- : Queen Elizabeth Public School (Trenton, Ontario)
- : Malvern estates and recreational facilities (Toronto, Ont.)

As a seasonal assistant to the Vale of Glamorgan Borough Council Planning Dept. in Barry, S. Wales, he became involved with inventory and analysis for the proposed Cosmeston Country Park; a project related to reclamation of an abandoned limestone quarry and refuse tip, preliminary studies for downtown-revitalization in Cadoxton and undertook Tree Preservation Order Surveys in designated conservation areas throughout the Vale.

Other project experience has included involvement in a team design competition for a sculpture garden at the University of Guelph (1st prize); Master Plan development for a Chalet Community in S. Ontario; Graphics and Layout for Point Pelee National Park Master Plan Review; Streetscape and Park design for Horvat Invest., Oakville, Ontario and North, North Dixie Streetscape, schools and parks design, Mississauga, Ontario.

ITEM	13
MANAGER'S REPORT NO.	41
COUNCIL MEETING	1979 06 11