

ITEM 17
MANAGER'S REPORT NO. 53
COUNCIL MEETING 1978 08 28

RE: BURNABY METROTOWN STUDY AND ORIGIN-DESTINATION TRAVEL
PATTERN STUDY - SELECTION OF CONSULTANTS
(ITEM 8, REPORT NO. 38, 1978 MAY 15)

Following is a report from the Director of Planning on the selection of a consulting firm to conduct two studies relative to the Burnaby Metrotown Area.

RECOMMENDATIONS:

1. THAT Council authorize the engagement of N.D. Lea and Associates to carry out the Metrotown Transportation Study for the sum of \$20,000; and
2. THAT Council authorize the engagement of N.D. Lea and Associates to carry out the Origin-Destination Travel Pattern Study for the sum of \$15,000; and
3. THAT a copy of this report be sent to the Transportation Committee.

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Planning Department
1978 August 23
Our File #08.170 A & B

TO: MUNICIPAL MANAGER -
FROM: DIRECTOR OF PLANNING
RE: BURNABY METROTOWN STUDY AND ORIGIN-DESTINATION
TRAVEL PATTERN STUDY - SELECTION OF CONSULTANTS

INTRODUCTION

At their meeting of 1978 May 15 the Burnaby Council:

1. Approved in principle the terms of reference for two transportation studies on the Burnaby Metrotown Area and on Origin-Destination Travel Patterns and resolved to pursue the studies at this time.
2. Authorized the Planning Department to secure proposals from consultants qualified to carry out such consulting studies in order that the Department might prepare a further report to Council recommending the retention of consultant(s) to do the work, and
3. Resolved to make application for a grant for the study under the 1978 Municipal Planning Grant Program, and authorized the Planning Department to pursue the submission of the required application to the Ministry of Municipal Affairs and Housing.

Council on 1978 July 31 received a letter from the Honourable Hugh Curtis, Minister of Municipal Affairs and Housing, informing the municipality of approval of a planning grant for the amount of \$23,666.00 under Part VI, Section 16 of the Revenue Sharing Act Regulations. At the same time Council was informed that the Planning Department had ascertained that the above sum was to cover two-thirds of the \$35,000 total cost of the Burnaby Metrotown Transportation Study and the Origin-Destination Travel Pattern Study.

FINANCIAL IMPLICATIONS

The Burnaby Metrotown and Origin-Destination (O-D) Travel Pattern studies have been budgeted to cost \$20,000 and \$15,000 respectively. The Planning Department will be required to budget for the total amount in order to pay the consultant(s) for the work. According to a circular issued by the Ministry of Municipal Affairs and Housing, dated 1978 January 25:

"Actual payment of the planning grant will be made upon evidence being submitted to the Deputy Minister that the community plan or related work as approved has been successfully completed and that the municipality has incurred costs for staff salaries, consultant fees and related expenses in accordance with the approved work programme and budget. It is noted that only those approved costs incurred during 1978 are eligible for the 1978 municipal planning grant."

Therefore, subject to Burnaby's compliance with the appropriate regulations, the 2/3 of the total cost that is recoverable from the Provincial Government will not be received until sometime in 1979.

SELECTION OF CONSULTANTS

Initially in the selection of consultants for the studies Planning Department staff, in consultation with the Municipal Engineer, identified 20 consultants operating in British Columbia, with some component of their effort devoted to transportation/traffic engineering. Of the twenty a short list of eight consultants were invited to submit proposals for either or both of the studies. In making their proposal consultants were asked to consider the broad terms of reference (attached) that were previously approved in principle by the Council.

For the Burnaby Metrotown Study proposals were received from five consultants, viz.:

De Leuw Cather Canada Ltd.
 IBI Group
 N. D. Lea and Associates Ltd.
 Underwood McLellan (1977) Ltd.
 Zoltan J. K. Kuun Associates

Of the above consultants all but Underwood McLellan (1977) Ltd. also submitted proposals for the O-D Travel Pattern Study.

A panel comprised of Planning Department and Engineering Department staff evaluated the proposals received for each of the studies. All of the proposals considered were tailored by the consultants to meet the budget for the studies, however, there was some variation among proposals as to how well they fulfilled the spirit, if not the letter, of the terms of reference. In their evaluation considerable weight was also attached by the panel to the methodology of the studies as well as the relevant qualifications and experience of the firms and their senior staff.

The staff committee felt that for the Metrotown Transportation Study the proposal from N. D. Lea and Associates was the superior. For the O-D Travel Pattern Study a number of firms excluded major items of expenditure from their study. N. D. Lea and Associates, however, displayed an appreciation of what was required and it was the opinion of staff that they should also be selected to carry out the O-D Travel Pattern Study. It was believed by staff that N. D. Lea and Associates would be capable of doing both studies and that there would be advantages to having the same firm carry out both projects.

RECOMMENDATIONS

It is recommended:

1. THAT Council authorize the engagement of N. D. Lea and Associates to carry out the Metrotown Transportation Study for the sum of \$20,000.00, and
2. THAT Council authorize the engagement of N. D. Lea and Associates to carry out the Origin-Destination Travel Pattern Study for the sum of \$15,000.00.
3. THAT a copy of this report be sent to the Transportation Committee.

A. L. Parr
DIRECTOR OF PLANNING

PL/hf

Attach.

c.c. - Municipal Engineer
Municipal Treasurer
Municipal Solicitor

- A) BURNABY METROTOWN AREA
B) ORIGIN-DESTINATION TRAVEL PATTERNS

1.0 APPLICATION

The following material gives a broad outline of two transportation planning studies that the Municipality of Burnaby proposes to hire consultants to undertake. The consultant(s) retained will be required to study the transportation needs of (A) Metrotown (Burnaby Regional Town Centre) and (B) the Origin Destination (O-D) Travel Patterns and mode used by persons crossing municipal boundaries. The proposed budget for this consulting work is \$20,000 for the Metrotown Study and \$15,000 for the Origin-Destination Travel Pattern Study. The studies, which are supported by financial assistance from the Ministry of Municipal Affairs and Housing, are to be completed by the end of 1978.

2.0 METROTOWN TRANSPORTATION STUDY

2.1 Metrotown Background

At a special meeting in 1974 July, Council approved the following recommendation from the report, Public Meetings - Phase One:

"....that the Kingsway/Sussex town centre be designed as a Metrotown development area within the existing core area hierarchy and that guidelines reflecting the development of the Metrotown in this area be prepared."

This recommendation evolved from a programme of public meetings concerned with a review of municipal planning policies and was founded on a desire to help accommodate anticipated population growth and provide an added range of urban opportunities within the Municipality beyond those accommodated at the various existing centres. It was felt that the evolution of a Metrotown or Regional Town Centre would provide a focus of commercial, residential, and social activities that would be identifiable and important at both the municipal and regional scale.

The Greater Vancouver Regional District (GVRD) since 1970 has also undertaken a major re-evaluation of regional policy incorporated under the title of The Livable Region 1976-1986. From a desire to handle regional transportation problems, to accommodate population growth in a controlled manner without the problems of sprawl and in order to enhance both the commercial and social opportunities for residents of the entire region, the GVRD has proposed a system of regional town centres of a relatively dense and diversified character that will ultimately be connected by efficient rapid transit. It so happens that the interests of the Regional decision makers and the Municipal decision makers, each pursuing a somewhat different goal, have converged. The Municipal idea of a Metrotown and the Regional idea of a Regional Town Centre are essentially the same.

On 1978 February 20 Council approved in principle the development of a Regional Town Centre, Metrotown, in the vicinity of Central Park as outlined in the report "Burnaby Metrotown - A Development Plan". A copy of this policy report is enclosed for your use and information. The report, under Section 6.3 Ongoing Work Programme, indicated:

Section 6.3.6 Capacity Analyses and Refinement of Proposed Metrotown Road Network

An analysis of trip generation potentials and evaluation of the proposed hierarchy with a view towards network

refinement and development of road standards and staging criteria.

2.2 Terms of Reference - Consultant Study

In the Burnaby Metrotown Development Plan, substantial growth in residential and commercial development has been projected to occur in the town centre by 1996. However, the increased demand that this growth would place on the transportation system has not been fully assessed nor has its impact been totally evaluated. In order to carry out this evaluation and to arrive at a program for orderly transportation improvements, the consultant will be required to work in close collaboration with municipal staff in carrying out a study as outlined below.

Basically, the study would comprise four major elements:

- (1) Analysis of existing conditions (data assembly and analysis),
- (2) Forecasting and assignment of future travel,
- (3) Determination of transportation needs, and
- (4) Development of transportation strategies.

The total cost of the consulting services is estimated at \$20,000.

2.2.1 Analysis of Existing Conditions

(a) Data Assembly

An assessment of current day travel needs is required with respect to trip generation/attraction, orientation and distribution of trips, modes utilized, etc., based on:

- i. B.C. Hydro O-D Survey (carried out by B.C. Hydro/Vancouver City 1976)
- ii. Vancouver screenline data (carried out by Vancouver City 1977)
- iii. Peak hour Metrotown cordon survey of vehicles by type, occupancy, and their origin-destination
 - a. Peak hour on street system
 - b. Peak hour for use of Metrotown facilities
- iv. Survey of current shoppers in the Metrotown area
- v. Parking Survey - on street and off street facilities demand
- vi. Street and intersection geometrics, etc. survey
- vii. Street and intersection traffic volume counts

(b) Data Analysis

Based on points 2.2.1 (a) vi and vii, the following assessments will be required:

- i. Current day transport infrastructure capacity in terms of person trips as it relates to Metrotown.
- ii. Current day transport infrastructure capacity relative to the study area in terms of vehicle trips (V/C ratios), including Metrotown Cordon Line capacity.

2.2.2 Forecasting and Assignment of Future Travel

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An assessment of future travel demand will be made with respect to trip generation/attraction, orientation and distribution of trips, and mode of travel used considering:

- i. Analysis of current travel patterns predicated upon (Item 2.2.1) and forecasts presented in the "Burnaby Transportation Study to 1985" report
- ii. Varying growth scenarios for Metrotown
- iii. The impact on Metrotown of whether or not rapid transit proposals are implemented.

2.2.3 Determination of Transportation Needs

This phase of the study will outline both engineering and transportation system management proposals to implement necessary improvements in the transportation network necessary to accommodate future travel to, through and within Metrotown.

Examination of the three major types of trips and their magnitude will be necessary in order to determine the varying degrees of impact each will have on the study area:

- (a) External to internal trips
- (b) Internal circulation
- (c) External to external trips

(a) External to Internal Trips

The measures required to enhance the regional accessibility of Metrotown in terms of Public Transport routing and capacity as well as arterial road network layout and capacity.

(b) Internal Circulation

The measures required to improve accessibility within Metrotown in terms of:

- i. Road network requirements, including possible new road links, junction improvements, traffic management measures, etc.
- ii. Public transport interchange
- iii. Pedestrian facilities
- iv. Service traffic
- v. Car parking

(c) External to External Trips

The measures required to expedite the passage of through trips.

2.2.4 Development of Transportation Strategies

On the basis of the above assessments, and the policies outlined in the Burnaby Metrotown Development Plan, the consultant will be required to evaluate alternative transportation strategies in order to arrive at specific short, medium and long term recommendations.

3.0 ORIGIN-DESTINATION TRAVEL PATTERN STUDY

3.1 Background

Recognizing the pressing need for a comprehensive major roads policy and supporting plan responsive to future travel demands, the Burnaby Municipal Council approved the retention of the transportation consultants, N.D. Ica and Associates, on 1973 January 15, to assist the Planning Department with a transportation study, to provide the base for the establishment of such policies and plans.

The enclosed report "Burnaby Transportation Study to 1985" was completed in 1974 March and a conceptual major roads network to 1985 was adopted by Council. An amended conceptual road network was adopted by Council on 1976 August 30 and a copy of this amended network is attached to the study report.

Recent transportation planning work in the Municipality has indicated the need to supplement the data available in the "Burnaby Transportation Study to 1985". The City of Vancouver in 1977 September/October, carried out a screenline survey of traffic crossing Boundary Road and it would be desirable to augment this data, which will become available to Burnaby when completed in 1978 July, with travel information on Burnaby's eastern boundaries in order to build up a comprehensive picture of current travel patterns into and through Burnaby. Apart from its present value for evaluation of strategic transport proposals such data might be used to confirm the basis of a future computerized travel model of persons and their mode of travel into and through Burnaby.

3.2 Terms of Reference - Consultant Study

During 1977 September/October an extensive survey was carried out by the City of Vancouver of trips crossing the Boundary Road screenline. Considerably less information, however, is available in connection with traffic crossing the municipal boundaries with New Westminster - Coquitlam - Port Moody.

The objective of this study would be to conceive, organize and conduct a suitable origin-destination survey of persons entering Burnaby in order to establish the impact of external trips on the municipal transportation system in general. It is estimated that the cost of this Origin-Destination study would be about \$15,000.

The Consulting services required to satisfy these objectives are outlined below.

3.2.1 Development of Survey Methodology

Considering the specific locations to be surveyed, i.e. prime routes leading into Burnaby, and current traffic volumes to be supplied on these facilities, the consultant will be required to conceive, evaluate and recommend such methods of sampling as will provide a statistically high confidence level in the sampled data on person-trip origins and destinations and trip purpose.

As general guidance the following lists some of the survey methods or combinations thereof which will be given consideration by the consultant to obtain the information.

- (1) Roadside interviews
- (2) Post Card questionnaires distributed at the roadside survey points

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- (3) Mail out questionnaires
- (4) Telephone interviews

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The consultant will report on the method(s) deemed most suitable and outline the organization of the survey(s).

3.2.2 Organization of Survey

Considerable administrative preparation will be required to ensure proper organization of the survey.

The consultant will:

- (a) Coordinate all preparatory planning with municipal staff, R.C.M.P. and Ministry of Highways and Public Works personnel in order to minimize delays to traffic flows and to maintain high safety standards at all times.
- (b) Outline the detailed method(s) of performing the field survey work and municipal staff will assist in planning the survey locations and design all forms, cards, maps, etc. required by field personnel.
- (c) Coordinate the physical aspects of the survey, i.e. hiring, training, transporting of personnel, etc. from initiation to completion of the survey.
- (d) Ensure that the data gathered is secured, summarized, analysed and transmitted to the Burnaby Planning Department in both tabular and graphic form.

Attached - Copy of Report
Burnaby Metrotown A Development Plan