

: - AGENDA 1984 SEPTEMBER 10
: - COPY - Municipal Manager
- Director Engineering

REPORT
REGULAR COUNCIL MEETING
1984 September 10

File: F.F. 20-2

THE CORPORATION OF THE DISTRICT OF BURNABY

TRAFFIC SAFETY COMMITTEE

HIS WORSHIP, THE MAYOR
AND MEMBERS OF COUNCIL

Madam/Gentlemen:

REPORT OF THE TRAFFIC SAFETY COMMITTEE

A meeting of the Traffic Safety Committee was held in the Council Chamber, Municipal Hall, 4949 Canada Way, Burnaby, B.C. on Tuesday, 1984 August 28 at 6:00 p.m.

PRESENT:

Alderman A.H. Emmott, Chairman
Alderman Egon Nikolai
Alderman L.A. Rankin
Mr. John Brucker, Burnaby Safety Council
Mrs. A.L. Smith, Parent Teacher Council
Mr. B.J. Jones, School Board Representative

ABSENT:

Mr. Ray Hunt, B.C. Motor Transport Association
Mr. K.R. Beedie, Burnaby Chamber of Commerce
Mr. Gordon Mackie, Citizens' Representative
Mr. W.B. Bennett, Metro Transit Representative
Mr. A.R. Carrell, Senior Citizens' Representative

STAFF:

Staff Sgt. A.H. Lund, R.C.M.P. Burnaby Detachment
Mr. H.G. Bacon, Traffic Supervisor
Mr. W.S. Scott, Transportation Planner
Mr. T.M. Dunlop, Deputy Municipal Clerk
Mrs. M. Pasqua, Secretary

**A. REQUEST FOR THE INSTALLATION OF A TRAFFIC SIGNAL-
INTERSECTION OF RUMBLE STREET AND PATTERSON AVENUE**

RECOMMENDATIONS:

1. THAT a semi actuated traffic signal be installed at the intersection of Rumble Street and Patterson Avenue.
2. THAT copies of this report be sent to Mr. & Mrs. H. Peters, 4022 Rumble Street, Burnaby, B.C., V5J 1Z6; Mr. M.G. Wooldridge, 4085 Rumble Street, Burnaby, B.C., V5J 1Z7 and Mr. Harry Bedard, 4005 Rumble Street, Burnaby, B.C., V5J 1Z7.

(CARRIED UNANIMOUSLY)

R E P O R T

Correspondence was received from Mr. & Mrs. H. Peters, 4022 Rumble Street, Mr. M.G. Wooldridge, 4085 Rumble Street and Mr. Harry Bedard, 4005 Rumble Street, with each letter requesting the installation of a traffic signal at the intersection of Rumble Street and Patterson Avenue.

A report dated 1984 July 10 was received from the Director Engineering relative to the abovementioned correspondence, and further, submitted in compliance with Council's direction, and staff to provide a report reviewing traffic volumes over a six month period and any improvements made at the subject intersection during that time.

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The contents of the Director Engineering's report are contained hereunder:

"At the meeting on 1983 11 28 Council adopted the recommendations that a traffic signal or four way stop control not be installed at Patterson and Rumble and that staff take steps to have the hedge on the southeast corner trimmed and arrange to have B.C. Hydro investigate the feasibility of relocating the power pole on the same corner. Council also asked that we prepare a report in six months reviewing traffic volumes and any improvements made to the intersection. Prior to the preparation of this report, on 1984 06 26, we received three letters via the Secretary, Traffic Safety Committee, requesting the installation of a traffic signal at this intersection. We will address all of the above issues in the following report.

1. VISION CLEARANCE:

We recently contacted B.C. Hydro and asked them to consider relocating the pole on the southeast corner of the intersection. After checking the pole, they advised us that it could not be relocated because it is at the intersection of two crossing primary transmission lines and secondary lines.

We did not pursue the trimming of the hedge because our observations indicated that the hedge is not causing vision problems for drivers of northbound vehicles. The landscaping in front of the house on the southeast corner consists mainly of low spreading junipers which can easily be seen over by drivers.

Based on the above information, we have concluded that the sight distance at this intersection is adequate and does not appear to be a factor in the accident rate.

2. STOP SIGN CHANGES:

In our previous report we mentioned that we had installed 75 cm orange backed stop signs at the intersection on 83.09.08. to improve the visibility of the signs. Upon checking the accidents in the 8 month period prior to and following this change, we found that 3 right angle collisions occurred prior to the change and two right angle collisions, one accident involving a vehicle overtaking another and one single vehicle accident involving a sign, occurred following the change. There does not appear to have been a significant change in the accident rate since the modified stop signs were installed. We recently reviewed the four way stop warrants and have found that they are still not met because of the relatively low traffic volumes on Patterson Avenue. Four way stop signs would cause unreasonable traffic delays on Rumble Street which could result in traffic short-cutting through one of the side streets. This would generate other complaints from the residents of the side streets.

3. TRAFFIC SIGNAL WARRANTS:

We updated our traffic volume statistics at this intersection and found that the volumes have increased 8.5% on Rumble Street and 13% on Patterson Avenue in the past year. Using this new data we re-evaluated the Roads and Transportation Association of Canada warrant and found that the point rating for this intersection has increased 83 points from the 73 point rating we found in November, 1983. 100 points are required to satisfy this warrant which considers vehicle volumes, pedestrian volumes, accident rates and progressive vehicle movement.

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The Institute of Transportation Engineers have several different warrants in their Traffic Engineering Handbook which consider the same criteria but in a different manner. Upon checking these warrants we found that the intersection satisfied only 50% or less of the requirements of each warrant, except for the Accident Experience Warrant in which 87.5% of the requirements were met. The Handbook advises that the Accident Experience Warrant be used with caution because studies have shown that traffic signals do not always reduce accidents. To illustrate this point we have made a comparison of the accident rates per million vehicle entries for the highest accident locations on Rumble Street and Imperial Street based on the average number of accidents per year for 1981 - 1983. These rates are displayed on the following table:

STOP SIGN CONTROLLED INTERSECTIONS

Patterson Avenue at Rumble Street	1.66 per million vehicles
Sussex Avenue at Rumble Street	1.09
Joffre Avenue at Rumble Street	0.67
McKay Avenue at Rumble Street	0.19

SIGNALIZED INTERSECTIONS

Royal Oak Avenue at Rumble Street	1.68 per million vehicles
Nelson Avenue at Rumble Street	1.35
Gilley Avenue at Rumble Street	0.68
Royal Oak Avenue at Imperial Street	1.76
Nelson Avenue at Imperial Street	1.01
Patterson Avenue at Imperial Street	1.12

The above table shows that, although the Patterson-Rumble intersection has the highest accident rate for the stop sign controlled intersections listed, the traffic signal controlled intersections of Royal Oak-Rumble and Royal Oak-Imperial have higher accident rates. A traffic signal does not guarantee a low accident rate. We generally find that traffic signals reduce right angle collisions but this reduction is offset by an increase in rear end and head-on left turn collisions.

4. OTHER CONSIDERATIONS:

We checked the accident reports for the accidents that have occurred over the past year and found that none of the accidents, except for one serious collision involving an impaired driver, involved a driver that did not see the stop signs. These accidents were all minor collisions and were caused by poor judgment on the part of one of the drivers involved. There was no mention in any of the reports of problems with the grade or vision obstructions caused by plants or poles.

We conducted several visual observation checks at the intersection during peak traffic periods of the day and found that there were no back up problems at any time. We timed the delay to vehicles stopping at this intersection and found that the majority of drivers had to wait less than 30 seconds. Only 7 of 102 northbound vehicles and 22 of 244 southbound vehicles waited longer than 30 seconds. The longest wait northbound was 1 minute 4 seconds and the longest southbound wait was 56 seconds. Most of these vehicles would have to wait longer if a traffic signal was in operation.

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Traffic flow on Patterson Avenue will likely increase once Willingdon Avenue is connected through to Patterson and across the B.C. Hydro rail tracks to Kingsway providing a direct north-south route. The construction of the Metrotown Place shopping complex will probably also add to the traffic flow on Patterson. This increased traffic volume may be sufficient to meet the signal warrants.

5. SUMMARY:

Based on our analysis of all of the data gathered for this report, we have reached the following conclusions:

1. The vision clearance is adequate at this intersection even though northbound vehicles must start from a severe grade. We can see no need to improve on the sight distance which we found to be in excess of 90 metres in each direction from the south leg of the intersection.
2. The stop sign alterations that we performed on 83 09 08 do not appear to have had a significant effect on the number of accidents occurring at this intersection.
3. Four way stop signs are not warranted and would not be a desirable form of traffic control at this intersection because of the differences in traffic volumes on Patterson and Rumble. Installation of these signs would result in greatly increased delays to Rumble Street traffic which could lead to short cutting traffic problems on some side streets.
4. The intersection does not meet the requirements of the traffic signal warrants accepted for use by traffic engineering groups in Canada or the United States. Based on the types of accidents occurring at this intersection, we cannot be sure of reducing the accident rate by installing a traffic signal. Traffic volumes on Patterson may increase sufficiently to warrant a signal once the major changes occur connecting Patterson to Willingdon and the construction of the Metrotown Place shopping centre. This intersection should be re-evaluated for signal warrants once these changes have taken place.

STAFF RECOMMENDATIONS TO THE TRAFFIC SAFETY COMMITTEE:

1. THAT traffic signals not be installed at this intersection at this time.
2. THAT staff continue to monitor the intersection and report back to the Traffic Safety Committee once conditions indicate that a traffic signal may be required."

B. REQUEST FOR ADVANCE STOP AHEAD WARNING SIGN - SPRINGER AVENUE APPROACH TO UNION STREET

RECOMMENDATIONS:

1. THAT the requested unwarranted advance stop signs not be installed.
2. THAT the R.C.M.P., Burnaby Detachment, be requested to increase enforcement against stop sign violators.
3. THAT Mrs. Margaret Smith of 875 Springer Avenue, Burnaby, B.C., V5B 3L4 be sent a copy of this report.

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R E P O R T

A letter dated 1984 June 17 was received from Mrs. Margaret Smith, 875 Springer Avenue, Burnaby, B.C., V5B 3L4 requesting the placement of an advance stop ahead warning sign on the Springer Avenue approach to Union Street.

A report dated 1984 July 16 was received from the Director Engineering in response to Mrs. Smith's request, the contents of which are contained hereunder:

"This intersection has been the subject of previous investigations and reports to the Traffic Safety Committee, including a similar request from Mrs. Smith in 1982 June.

In 1983 July we replaced the existing 76 cm (30") stop signs on Springer Avenue with new 76 cm stop signs with reflectorized backs. It was felt that this additional 'target' would serve to draw the motorists' attention to the existence of the stop signs if there was a problem related to recognition. Since this change about eleven months ago, we have recorded eight right angle accidents compared to five in the twelve months previously. To say the least, these statistics are discouraging in that they indicate that the problem is not one of failure to see the stop signs but of disregard for their meaning. Numerous observations have been made of the traffic at this intersection and we have noted many vehicles on Springer Avenue doing the so-called California stop, some at speeds of 10 - 20 kmh. We also noted that many of these drivers quickly accelerated to beat a Union Street driver to the intersection although there were no other vehicles on Union Street. This, combined with the tendency of some Union Street traffic to speed, creates a potential for accidents. We might add that during the period of our observations we did not observe a single vehicle go through the stops that did not slow down, indicating they were aware of the stops.

During the period 1976 January to 1984 June, the intersection has experienced 34 right angle collisions. Of these 22 occurred in the off peak hours when the two way volume on Union Street was under 200 vehicles per hour (V.P.H.). The highest volume during the peak period was 550 V.P.H.

The warrant to institute a four way stop control should meet the following conditions:

1. Where traffic signals are warranted and urgently needed, the multiway is an interim measure that can be installed quickly in order to control traffic while arrangements are being made for the signal installation.
2. An accident problem as indicated by five or more reported accidents in a 12 month period of a kind susceptible to correction by a multiway STOP installation.
3. Minimum traffic volume:
 - a. The total vehicular volume entering the intersection from all approaches must average at least 500 vph for any 8 hour of an average day, and
 - b. the combined vehicular and pedestrian volume from the minor street or highway must average at least 200 units per hour for the same 8 hour, with an average delay to minor street vehicular traffic of at least 30 seconds per vehicle during the maximum hour, but
 - c. when the 85th percentile approach speed of the major street traffic exceeds 40 mph (64 kmh), the minimum vehicular volume warrant is 70 percent of the above requirements.

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While the accident rate has been met, not because of some physical defect in the geometrics or control of the intersection, but simply from a very poor driving attitude, the volume section has not. We are only able to meet the 500 V.P.H. approach for two of the required eight hours and those two hours are under 600 V.P.H.

To install a four way stop control at such a low volume intersection with no sight problems, only encourages disobedience and thus reduces the effectiveness of signs actually required to control traffic. The answer to the ever increasing accident rate at well defined stop locations is enforcement aimed at those drivers who persist in executing the so-called 'California' or rolling stop.

In response to the request that we repaint the stop bars at Springer Avenue, we would advise that they were repainted on 1984 07 03.

STAFF RECOMMENDATIONS TO THE TRAFFIC SAFETY COMMITTEE:

1. THAT the requested unwarranted advance stop signs not be installed.
2. THAT the R.C.M.P. be requested to increase enforcement against stop sign violators.
3. THAT Mrs. M. Smith of 875 Springer Avenue, Burnaby, B.C., V5B 3L4 be sent a copy of this report."

C. KITCHENER STREET AND SHERLOCK AVENUE

RECOMMENDATION:

1. THAT Council concur with the placement of advance intersection warning signs on both Kitchener Street legs.

R E P O R T

A report dated 1984 July 10 was received from the Director Engineering regarding Kitchener Street and Sherlock Avenue, the contents of which are contained hereunder:

"The Engineering Department has received a number of requests this year for either stop signs or yield signs at the captioned intersection. These requests have been prompted by the increasing accident history of this intersection.

The intersection geometrics involve a four leg uncontrolled 28 foot residential standard. Sherlock Avenue intersects Kitchener Street at the crest of a small hill which tends to obscure its presence. While this may in part be the answer to why there is an accident history, the reasons for the increase over the past few years appear to involve the treatment of an adjacent intersection.

Prior to 1975 the intersection of Cliff Avenue and Kitchener Street was controlled by yield signs. In spite of these controls there was a continuing accident history that, over the years, averaged about two accidents per year. For some reason the accident rate for 1975 shot up to seven. On the recommendation of the Traffic and Safety Committee the existing yield signs were replaced with stop signs. The stop signs did very little to eliminate the previous accident history and, in fact, if you discount the high year of 1975 the average per year, for eight years either side of 1975 is about the same.

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What the stop signs did do was to give the motorists the impression that Kitchener Street, in spite of only being 28 feet between curbs, was a through street. This resulted in an increase in the average yearly accident rate at Kitchener Street and Sherlock Avenue which went from 0.30 prior to 1975 to 1.90 since 1975, an increase of over 500% in the accident rate.

Taking the accident histories of both intersections together, we find that prior to 1975 they averaged 2.47 accidents per year. Since 1975 together they average 3.34 accidents per year.

The above accident history bears out the experience of many traffic agencies that the placement of stop signs at an isolated intersection does have a detrimental effect on adjacent uncontrolled intersections. For this reason we would be reluctant to suggest stop sign control for Kitchener Street and Sherlock Avenue.

Instead, as the intersection is not always visually apparent, we have placed intersection ahead warning signs on both Kitchener Street legs. The motorist on Kitchener Street should now be aware that he is approaching an uncontrolled intersection and that he must yield to the motorist on the right.

STAFF RECOMMENDATION TO THE TRAFFIC SAFETY COMMITTEE:

1. THAT the Committee concur with the placement of advance intersection warning signs."

D. REQUEST FOR THE INSTALLATION OF A TRAFFIC BARRIER ON CLIFF AVENUE SOMEWHERE BETWEEN HALIFAX STREET AND BROADWAY

RECOMMENDATIONS:

1. THAT no action be taken on the request to barricade Cliff Avenue and that the matter be reviewed three (3) months following the opening of the B.N.R. Grade Separation.
2. THAT Mr. Alan Dalkin, 1891 Cliff Avenue, Burnaby, B.C., V5A 2K6 and Mr. and Mrs. J. MacKenzie, 1896 Cliff Avenue, Burnaby, B.C., V5A 2K6 be sent a copy of this report.

(CARRIED UNANIMOUSLY)

R E P O R T

Council, at the regular Council Meeting held on 1984 July 09 received a letter from Mr. Alan Dalkin, 1891 Cliff Avenue, Burnaby, B.C., V5A 2K6 requesting the installation of a traffic barrier on Cliff Avenue somewhere between Halifax Street and Broadway, and referred this matter to the Traffic Safety Committee.

The Traffic Safety Committee, at its meeting held on 1984 August 28, heard two delegations being Mr. Alan Dalkin, 1891 Cliff Avenue and Mr. J. MacKenzie, 1896 Cliff Avenue, both of which requested the installation of a traffic barrier on Cliff Avenue, the suggestion being a half barrier on the east side of Cliff Avenue where Cliff Avenue intersects with Broadway.

A report dated 1984 July 10 was received from the Director Engineering in response to Mr. Dalkin's request, the contents of which are contained hereunder:

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"Cliff Avenue between Broadway and Halifax Street has been constructed to its final standard of 8.5 metres between curbs. While it has been constructed to a minor residential standard, it does serve as the spine or collector facility to a fairly large single family area bounded by Sperling Avenue on the west, Duthie Avenue on the east, Broadway on the south and Halifax on the north. The area is fully developed and traffic volumes are quite stable. From a count station on Cliff Avenue just north of Broadway we recorded in 1979 June a two-way volume of 2,635 vehicles per day (V.P.D.). In 1984 June at the same station location we recorded 3,032 V.P.D., a rise of only 397 V.P.D. in five years. The count of 2,446 V.P.D. used in Mr. Dalkin's submission was taken on Cliff Avenue just south of Halifax Street. Because of the many traffic generating streets between the two count stations, any comparison between the two as an indication of vehicle growth is invalid.

The suggestion that volumes will increase when the Kensington Overpass is open is, at this time, only subjective. We can see no reason why they should, in fact they may even decrease.

We checked our accident map from 1984 January 01 to June 30 and have no reports of any intersection accidents on the subject section of Cliff Avenue.

In summary, we can see no evidence to support any changes to the existing function or control of Cliff Avenue.

STAFF RECOMMENDATIONS TO THE TRAFFIC SAFETY COMMITTEE:

1. THAT no action be taken on the request to barricade Cliff Avenue.
2. THAT Mr. Alan Dalkin, 1891 Cliff Avenue, Burnaby, B.C., V5A 2K6 be sent a copy of this report."

E. INTERSECTION OF DOUGLAS ROAD AT SPROTT STREET

RECOMMENDATIONS:

1. THAT the request for an adult crossing guard be referred to the Burnaby School Board for their consideration.
2. THAT Ms. Lynda Siggers of 5312 Norfolk Street, Burnaby, B.C., V5G 1G2 be sent a copy of this report."

(CARRIED UNANIMOUSLY)

R E P O R T

A report dated 1984 July 18 was received from the Director Engineering in response to a letter received from Ms. Lynda Siggers, 5312 Norfolk Street, Burnaby, B.C., V5G 1G2 regarding the safety of children crossing Sprott Street at Douglas Road and suggesting, as a temporary solution, the placement of an adult crossing guard at this intersection.

The contents of the Director Engineering's report are contained hereunder:

"In her letter dated 1984 May 25, Ms. Siggers, writing on behalf of the Douglas Road Parents Group, expressed concern regarding the safety of children crossing at the above intersection.

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As a temporary solution to this problem the Parents Group suggested that an adult guard be placed at the intersection. This request must be referred to the Burnaby School Board for their consideration.

Burnaby is currently undertaking the reconstruction of Sprott Street between Douglas Road and Norland Avenue. As part of this reconstruction we will be installing a traffic signal at the intersection of Douglas Road and Sprott Street. This traffic signal will include push buttons for pedestrians and 'Walk-Don't Walk' signals.

At the same time the traffic signal is being installed at Douglas and Sprott, the traffic signal at Canada Way and Douglas Road will be reconstructed. At that time the crosswalk crossing Douglas will be eliminated and pedestrians will be required to cross at the Douglas-Sprott traffic signal. This will eliminate any potential conflicts between pedestrians and right-turning vehicles from Canada Way.

These changes will be made within the next year. Once completed, the need for an adult crossing guard would be eliminated. The children would be able to cross safely with the new signal.

STAFF RECOMMENDATIONS TO THE TRAFFIC SAFETY COMMITTEE:

1. THAT the request for an adult crossing guard be referred to the Burnaby School Board for their consideration.
2. THAT Lynda Siggers of 5312 Norfolk Street, Burnaby, B.C., V5G 1G2 be sent a copy of this report."

F. PARKING RESTRICTIONS - 4800 BLOCK ROWAN AVENUE

RECOMMENDATIONS:

1. THAT the existing parking restrictions on the west side of Rowan Avenue from Gilpin Street 100 feet south remain in effect to accommodate the turning of fire vehicles.
2. THAT the remainder of the existing parking restrictions on the west side of Rowan Avenue south to Price Street be relocated to the east side of Rowan Avenue.
3. THAT Mr. D. Staughton, 4893 Rowan Avenue, Burnaby, B.C., V5G 3S9 be sent a copy of this report.

R E P O R T

A letter dated 1984 July 17 was received from Mr. D. Staughton, 4893 Rowan Avenue, Burnaby, B.C., V5G 3S9 regarding his concern of the recently implemented parking restrictions in the 4800 block Rowan Avenue.

A report dated 1984 August 08 was received from the Director Engineering in response to Mr. Staughton's concerns, the contents of which are contained hereunder:

" The subject parking ban was installed along the west side of Rowan Avenue from Gilpin Street to Price Street on 1984 June 11. The parking restriction was instituted at the request of the Burnaby Fire Department.

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The restriction was placed on the right hand side of the road to facilitate a fire vehicle responding to a call. It was also more compatible to a vehicle making a left turn off Gilpin Avenue, the move made by fire vehicles responding from the nearest fire hall.

In response to the concern of unloading groceries, we note that the residence has a driveway off Price Street with two parking spaces built into the house. In addition, there are no parking restrictions on Price Street.

STAFF RECOMMENDATIONS TO THE TRAFFIC SAFETY COMMITTEE:

1. THAT no changes be made in the present parking restrictions.
2. THAT Mr. D. Staughton, 4893 Rowan Avenue, Burnaby, B.C., V5G 3S9 be sent a copy of this report."

G. MARY AVENUE AND 13TH AVENUE

RECOMMENDATIONS:

1. THAT the cul-de-sac on Mary Avenue remain in place as constructed.
2. THAT Mr. A. Allegretto, 7725 Mary Avenue, Burnaby, B.C., V3H 3G9 be sent a copy of this report.

(CARRIED UNANIMOUSLY)

R E P O R T

A report dated 1984 August 13 was received from the Director Engineering in response to a letter and petition containing 88 signatures received in the Mayor's Office from Mr. A. Allegretto, 7725 Mary Avenue, Burnaby, B.C., V3H 3G9 concerning an increase in traffic volumes as a result of the installation of the cul-de-sac in the 7400 block 12th Avenue.

The contents of the Director Engineering's report are contained hereunder:

"On 1984 April 26, the Mayor's Office received a letter and petition from a Mr. A. Allegretto of 7725 Mary Avenue, concerning traffic in his neighbourhood.

To put the members of the Traffic and Safety Committee into the picture we will have to go back to a time prior to the cul-de-sacing of 12th Avenue.

Over the years (back to 1968) staff and previous Councils and Traffic Committees have considered complaints and requests to do something about purported high volumes of vehicles, many being large trucks, using 12th Avenue as a shortcut between Canada Way and Kingsway. The concern expressed by the residents of the area was compounded by the fact that there are two schools on 12th Avenue, the 12th Avenue Elementary and the St. Thomas More High School.

In 1974 December the Traffic Safety Committee dealt with one of these complaints of speeding and high volumes of traffic. Counts taken at that time indicated a volume of approximately 2,000 vehicles per day (V.P.D.) on 12th Avenue. Visual observations at that time, however, failed to indicate any noticeable problem related to truck traffic.

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In 1980 the Planning Department received an application to rezone the property on the north side of 12th Avenue immediately west of the lane west of Mary Avenue to permit the construction of a condominium development. This rezoning gave the municipality the opportunity to acquire the land needed to block and cul-de-sac 12th Avenue.

At a public hearing on the rezoning application held on 1981 May 26 the Eastburn Community Association made a presentation and submitted a large petition fully supporting the requirement of cul-de-sacing 12th Avenue. With the apparent support of the community the project approval required the construction of the aforementioned cul-de-sac.

The closure of 12th Avenue by means of a cul-de-sac was officially completed on 1983 May 30. Since that date we have received numerous complaints from Mr. Allegretto related to the increase in traffic on Mary Avenue, 13th Avenue and in the lane west of Mary Avenue.

Traffic volume counts were taken by automatic traffic counters during the week of 1984 July 16 and the following twenty-four (24) hour counts were recorded:

Lane west of Mary Avenue	118 V.P.D.
Mary Avenue off 12th Avenue	540 V.P.D.
Davies Avenue off 12th Avenue	330 V.P.D.

The counts indicated are not in themselves high for a residential street. However, if in the past they were in the 250 V.P.D. range, the doubling of volume would be quite noticeable. Unfortunately we do not have any previous counts on these side avenues on which to judge the degree of change in volume.

The volume count in the lane while not high for a twenty-four (24) hour count in a standard 170-200 metre long lane, is high for a 115 metre lane and is of concern to Mr. Allegretto. The condominium development has a small parking lot (3 vehicles) connected to the lane. This lot was part of the approved plan. The higher than normal volume in the lane is probably due to the lane being the last spot to turn before the cul-de-sac and could be the exit used by vehicle trips to the St. Thomas More School.

Since the cul-de-sac was installed we have recorded one right angle collision at 13th/Mary and none at 12th/Mary. In the same period of time before the change there were no accidents at either intersection.

There is now on the books a proposal to build a fifty-five (55) suite apartment on the S.E.C. of 13th/Kingway. If and when this is built there is a possibility of an increase in traffic on 13th Avenue and on Mary Avenue. This, however, would be a possibility with or without the cul-de-sac.

In summary, we would say that the cul-de-sac has reduced the previous volumes on 12th Avenue but has diverted what remains of external traffic to the area onto Mary and possibly Davies Avenues. To what extent, we do not know, as we have no previous counts for comparison. To remove the cul-de-sac would again open up 12th Avenue as an unobstructed link between Canada Way and Kingway, bringing back the previous concerns of high volumes and danger to school children.

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While we can sympathize with the concerns of the Allegrettos and those who signed the petition, we feel that the overall volume of commuters entering the area via 12th Avenue has been reduced.

STAFF RECOMMENDATIONS TO THE TRAFFIC SAFETY COMMITTEE:

1. THAT the cul-de-sac on Mary Avenue remain in place as constructed.
2. THAT Mr. A. Allegretto, 7725 Mary Avenue, Burnaby, B.C., V3H 3G9 be sent a copy of this report."

H. CENTRAL PARK B.C. HYDRORAILWAY TRAFFIC CONTROL

RECOMMENDATION:

1. THAT stop signs be installed at the following six (6) crossings which intersect with the Central Park B.C. Hydrorailway Line:
 - (a) Wilson Avenue - Stops for both directions;
 - (b) Kathleen Avenue (Temporary) - Stop for southbound direction;
 - (c) McKay Avenue (Temporary) - Stop for southbound direction;
 - (d) Dow Avenue (Temporary) - Stops for both directions;
 - (e) MacPherson Avenue - Stops for both directions;
 - (f) Buller Avenue - Stop for northbound direction.

(CARRIED UNANIMOUSLY)

R E P O R T

A report dated 1984 August 22 was received from the Director Engineering outlining traffic control measures for level road crossings which intersect with the Central Park B.C. Hydrorailway Line.

The contents of the Director Engineering's report are contained hereunder:

"The Central Park B.C. Hydrorailway Line cuts across the southern portion of Burnaby from Boundary Road on the west to 10th Avenue on the south. Along this length of line there are sixteen level road crossings. Of the sixteen crossings, none are protected by signals, four have stop sign protection, while the remainder are called to the motorist's attention by railway crossbucks (the white crosses mounted just before the crossing) supplemented by advance warning signs. Two of the four crossings protected by stop signs were recently installed (Silver Avenue and relocated Telford Avenue) and crossing approval was only granted on the condition that stop signs were installed.

Over the years the B.C. Hydro Railway have repeatedly asked that stop signs be placed at all level crossings in Burnaby. We have resisted these requests as, in our opinion, they would receive very poor compliance. This is due, in part, to the absence of any obvious rail activity as the very few trains that do use this line usually run between midnight and 2:00 a.m.

In 1975 the Ministry of Transportation and Highways (MOTH) carried out a detailed Hazard Ranking Study of all the street/rail intersections in Burnaby.

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Many of the crossings were identified in the MOTH report as requiring signalization in 1980. However, those crossings still lack signals. The proposed A.L.R.T. columns near these intersections has once again raised the question of the safety of these crossings. While signalization is the ultimate solution to some of these sight problems, other more cost-effective control measures may suffice for some occasions as far as safety is concerned.

To define which intersections needed controls and to what degree, the B.C. Transit had ACRES Consulting Services Limited conduct a sight line study. This study was undertaken by B.C. Transit to measure what impact their A.L.R.T. project had on the safety of these crossings over and above that which existed prior to the construction of their A.L.R.T. structure.

The recommended control of both the MOTH report and the B.C. Transit report for thirteen of these crossings is listed below:

CROSSING

MOTH

B.C. TRANSIT

1. Patterson	Signalization by 1990	Stop Signs. Now.
2. Wilson	Warning Sign Adequate	Stop for Southbound-(S/B) Traffic
3. Kathleen	Warning Sign Adequate	Stop for Southbound-(S/B) Traffic
4. McKay	Warning Sign Adequate	Stop for Southbound-(S/B) Traffic
*5. Telford	Warning Sign Adequate	Stop for Southbound-(S/B) Traffic
6. Dow	Signalization by 1985	Stop signs & reduced train speed
7. Imperial	Signalization by 1980	Install Signal
8. Nelson	Signalization by 1980	Stop signs for present
9. Royal Oak	Signalization by 1980	Install signal
10. MacPherson	Signalization by 1990	Stop signs
11. Buller	Signalization by 1990	Stop for Northbound-(N/B) Traffic
12. Gilley	Signalization by 1985	Stop signs
13. Rumble	Signalization by 1980	Install signal

*This crossing was relocated and is stop controlled.

Because of the volume of traffic on Patterson, Imperial, Nelson, Royal Oak, Gilley and Rumble we feel that if any control is installed then it should be a signal. Unfortunately, railway signals are quite expensive, about \$70,000 each, and would probably be a 100% cost to Burnaby as the railway has priority on these crossings. The final decision on who pays what amount is made by MOTH, who have the same authority on Provincial railways as the Canadian Transport Commission has on inter-Provincial railways. Because of the very low volume of rail traffic (one train a day) and the hours of operation, we have suggested an alternative signal device using post mounted flashers and train detectors that should cost under \$10,000. This suggestion is being considered by the B.C. Hyrdo railway and by MOTH.

In the interim we have been requested to install stop signs at the following six locations. Three of the crossings to eventually be phased out with Metro-Town development are noted.

REPORT
REGULAR COUNCIL MEETING
1984 September 10

-14-

CROSSING

STOP CONTROL

Wilson Avenue Kathleen Avenue (Temporary) McKay Avenue (Temporary) Dow Avenue (Temporary) MacPherson Avenue Buller Avenue	Stops for both directions Stop for S/B direction Stop for S/B direction Stops for both directions Stops for both directions Stop for N/B direction
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STAFF RECOMMENDATION TO TRAFFIC SAFETY COMMITTEE:

1. THAT the stop signs indicatd for the six requested crossings be approved."

**I. WESTERN CANADA TRAFFIC ASSOCIATION
CONFERENCE - EDMONTON, ALBERTA**

RECOMMENDATION:

1. THAT permission be granted for Alderman A.H. Emmott, Chairman, Traffic Safety Committee and Mr. H.G. Bacon, Traffic Supervisor to attend the Western Canada Traffic Association Conference in Edmonton, Alberta on 1984 October 9,10 and 11.

(CARRIED UNANIMOUSLY)

R E P O R T

A letter dated 1984 July 31 was received from Mr. T.P. Murphy, C.E.T., B.C. Director, Western Canada Traffic Association, c/o District of Coquitlam, 1111 Brunette Avenue, Coquitlam, B.C., V3K 1E9 advising of the upcoming W.C.T.A. Conference in Edmonton, Alberta on 1984 October 9,10 and 11.

The conference is held to discuss traffic issues and to share solutions to traffic problems of common concern.

As a result of the Traffic Safety Committee's consideration respecting this matter, the abovementioned recommendation is submitted.

Respectfully submitted,

Alderman A.H. Emmott,
Chairman

Alderman Egon Nikolai,
Member

Alderman L.A. Rankin
Member