

REPORT  
Regular Council Meeting  
1992 January 20

THE CORPORATION OF THE DISTRICT OF BURNABY

TRAFFIC AND TRANSPORTATION COMMITTEE  
(TRAFFIC SAFETY DIVISION)

HIS WORSHIP, THE MAYOR  
AND ALDERMEN

A. PEDESTRIAN CROSSWALK AT ROYAL OAK SKYTRAIN STATION

RECOMMENDATIONS:

1. THAT staff pursue educational initiatives in consultation with ICBC and the RCMP, to inform both pedestrians and motorists about safety at crosswalks including special crosswalks.
2. THAT municipal staff conduct a safety review at the end of 1 year regarding operation of the special pedestrian crosswalk on Royal Oak Avenue at Beresford Street.

REPORT

The Assistant Director Engineering - Traffic and Engineering Systems submitted the following report to the Committee:

"1.0 BACKGROUND

Early in 1991 a 'special' pedestrian crosswalk was installed on Royal Oak Avenue at Beresford Street. Site conditions and pedestrian volumes led staff to recommend this application for this Royal Oak location. However there are relatively few crosswalks with signals of this type operating in the Lower Mainland and no others in Burnaby. Although this special crosswalk installation fully conforms to Provincial and draft National application standards and Motor Vehicle Act regulations, a significant number of motorists and pedestrians seem to be unfamiliar with its operation.

2.0 REVIEW

When the special crosswalk went into operation in May of this year, there was some confusion as to how it worked and staff received a number of complaints regarding its operation. In particular, a couple of area residents remain very concerned about safety at this location.

The special crosswalk is made up of 2 illuminated pedestrian signs and downlighting which illuminates the crosswalk on the roadway below. A special feature is the flashing amber lights which are activated by push button control. The typical installation standard for this type of crosswalk is illustrated in APPENDIX 1 attached.

INTERNAL DISTRIBUTION:  
AGENDA - 1992 JANUARY 20  
COPY - ACTING MUNICIPAL MANAGER  
- DIRECTOR ENGINEERING  
- DIRECTOR PLANNING & BUILDING

After completion of the pavement marking and prior to activation of the flashing lights staff conducted an evening peak hour study. During observations it was noted that less than 30% of vehicles travelling through the intersection yield the right-of-way to pedestrians occupying the crosswalk. Some non-compliance is not uncommon when motorists encounter a change in traffic control - an education period is usually required. A follow up study was recently conducted and it was found that more than 40% of vehicles approaching the crosswalk yield to pedestrians.

Prior to installation of the overhead lights and signs, pedestrians crossed the street where it was convenient and when crossing gaps occurred. This still occurs but to a lesser extent. Table 1 shows pedestrian crossings in the crosswalk have increased by 20%. This suggests that staff have been partially successful in the objective of attracting jaywalking pedestrians to the crosswalk.

TABLE 1: Peak Hour (4:00pm - 5:00pm)  
East & West Pedestrian Movement Across Royal Oak Ave

Date	Volume Crossing In Crosswalk	Volume Crossing Outside Crosswalk	Average Pedestrian Waiting Time
1991 03 22	88	84	6.2 seconds
1991 11 27	125	49	3.6 seconds

3.0 CONCLUSIONS/RECOMMENDATIONS

The primary intent of the flashing amber lights in the special crosswalk is to provide a visual cue, warning motorists that the crosswalk is occupied. Initially it was perceived that some pedestrians felt uncomfortable with the operation of the flashing lights, and when encountered for the first time tend to associate the push button controls with a pedestrian activated signal. In the crosswalk 'hierarchy', the special crosswalk is a step above the standard marked crosswalk and a notch below a pedestrian actuated signal. At this time, traffic volumes on Royal Oak Avenue at Beresford Street do not warrant the installation of a signal.

It has been suggested that the flashing amber lights be changed to red. The function of this amber crosswalk 'signal' is to provide a visual warning cue and should not be confused with stop control such as a red signal or stop sign. Staff note that changing the amber lights to red would not be a feasible solution as it does not conform to accepted application guidelines for pedestrian crossings or Motor Vehicle Act regulations.

Prior to the most recent site investigation staff intended to seek approval to remove the push buttons and amber lights altogether to resolve the ambiguity that seemed to be arising from a lack of understanding of how the special crosswalk operates. Staff were in effect going to propose reversion of the crosswalk to a 'standard' application. However, to the contrary it was observed that most pedestrians seemed quite confident using the push buttons. There was also a greater recognition by motorists, which is reflected by the decrease in pedestrian waiting time (Table 1). Observations showed that only 3-4% of pedestrians seemed unfamiliar or perplexed by the push button operation.

To aid in public education, staff had prepared the draft article attached as APPENDIX 2 for insertion in the Information Burnaby newsletter. Unfortunately, the length of the article has resulted in delay of its publication. Staff will now review alternative means for disseminating this information.

To draw additional attention to and enhance crosswalk visibility staff will also install additional side mounted signs (shown as optional in APPENDIX 1)."

The Committee amended the recommendation in the report by requesting municipal staff to conduct a safety review at the end of one year regarding the operation of the special pedestrian crosswalk on royal Oak Avenue at Beresford Street.

Arising from the discussion of the report, the Committee also recommended that the I.C.B.C. Education Department work with the Burnaby R.C.M.P. detachment and municipal staff to produce a pedestrian safety education brochure which includes reference to special pedestrian crosswalks such as the one on Royal Oak Avenue at Beresford Street.

B. BROADWAY AT HOLDOM AVENUE

RECOMMENDATION:

1. THAT the installation of a traffic signal at Holdom Avenue and Broadway be approved at an estimated cost of \$87,000.

REPORT

The Assistant Director Engineering - Traffic and Engineering Systems submitted the following report to the Committee:

"The Executive Summary of a report titled 'Traffic Review for the Holdom Avenue and Broadway Intersection, Burnaby, British Columbia' has been attached as APPENDIX 3 for the information of Council. The full report is available from the Assistant Director Engineering, Traffic & Engineering Systems for any Council members who may wish more detail.

The consultant reviewed the intersection capacity, traffic volumes, traffic accidents and conducted traffic conflict observations at the subject intersection. A traffic conflict occurs when two or more road users approach the same point in an intersection at the same time. In order to prevent a collision, the road users must take evasive action. While traffic accidents are comparatively rare, conflict incidence is more frequent. Hence trained observers counting 'conflicts' can accumulate data over a few days that would supplement years of accident history.

The warrants for the installation of a traffic signal were also reviewed. The consultant concluded that a traffic signal should be installed at this intersection. Staff concur with this conclusion. The addition of a signal will reduce congestion at the intersection during peak periods and will likely reduce accidents. As described in the Executive Summary, auxiliary equipment will be required to minimize the potential for traffic to queue through Holdom and Broadway from the Loughheed Highway signal. To maximize the level of service, staff will pursue the interconnection of this signal with the Loughheed signal through negotiation with the Ministry of Transportation & Highways.

The estimated cost of this signal is \$87,000. Funding is available in the 1991-1995 Capital Budget under Code 60-14, Traffic Management. This expenditure is in conformance with the recent Capital Expenditure Program review."

## REPORT

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C. CURTIS STREET AT FELL AVENUERECOMMENDATIONS:

1. THAT the installation of a pedestrian activated traffic signal on Curtis Street at Fell Avenue be approved.
2. THAT copies of this report be sent to:
  - a) Mrs. D. Kennedy, 1150 Fell Avenue, Burnaby, B.C., V5B 3V7;
  - b) P. Sexsmith, Principal Aubrey School, 1075 Stratford Avenue, Burnaby, B.C.; and
  - c) Elaine Jaltema, c/o Kensington Recreation Centre.

REPORT

The Assistant Director Engineering - Traffic and Engineering Systems submitted the following report to the Committee:

"Staff have recently received a number of requests for pedestrian crosswalk control at the Curtis Street/Fell Avenue intersection. In telephone conversation and written form, staff have heard from Aubrey Elementary School, a parent group (see APPENDIX 4 attached) and the Kensington Recreation Centre of their concerns about pedestrian safety at this location. The solution suggested by those concerned is that a pedestrian controlled signal should be installed. Staff note that Fell Avenue is about half-way between the signals at Holdom and Kensington on Curtis. The distance between those signals is 750m, so a pedestrian signal would generally conform with application guidelines.

With the availability of amenities at Kensington Park on the north side and Aubrey Elementary School on the south side, there is a draw for pedestrian crossings of Curtis Street at Fell Avenue. On-site observations indicate that many of these pedestrians experience some difficulty in crossing Curtis Street. It was noticed on at least one occasion, pedestrians crossing to the centreline before being stranded while vehicles passed in either direction.

pedestrian volumes, traffic volumes and the consequent difficulties experienced in crossing Curtis Street, and the need for a central crossing were factors considered in the evaluation of this request. A marked crosswalk without signals to assist pedestrians probably would not be a safety improvement for this intersection. Aside from the fact that marked crossing areas generally have higher accident rates, the speed and volume of Curtis Street traffic is significant and the sight lines are poor due to Fell Avenue being below the crest of a hill. A paramount concern is child safety relative to the pedestrian traffic between Aubrey School and the park - an unsignalized marked school crosswalk at this location would not be sufficient protection relative to draft MOTH guidelines.

Staff therefore recommend that a pedestrian activated signal would be appropriate for this intersection. The cost of the signal including interconnection to existing signals, and an advance warning flasher for eastbound traffic would be about \$75,000. Funds are available for this work in the 1991-1995 Capital Budget (Traffic Management account code 60-14). This expenditure is in conformance with the recent \$34.7 million Capital Expenditure Program review."

D. TRAFFIC CONCERNS ON MARINE DRIVE

RECOMMENDATION:

1. THAT Mrs. Herchenson, 5489 Marine Drive, Burnaby, B.C., V5J 3G7 be sent a copy of this report.
2. THAT the R.C.M.P. monitor speeding on Marine Drive and further; that municipal staff review the 'no truck route' signage on Marine Drive and examine the advisability of placing stop signs at three or four points on Marine Drive to deter commuter traffic.

REPORT

The Assistant Director Engineering - Traffic and Engineering Systems submitted the following report to the Committee:

"1.0 BACKGROUND

In a letter to the Committee (APPENDIX 5), Mrs. Herchenson expressed concerns regarding traffic on Marine Drive where she lives. Her concerns included traffic volumes, truck traffic, vehicle speed, and parking during the Hare Krishna carnival. Subsequent to her letter to the Committee, staff have spoken with Mrs. Herchenson and discussed her concerns in greater detail.

2.0 VEHICLE VOLUMES

Prior to construction of Marine Way in 1985, Marine Drive served as the southernmost link through Burnaby. During that time, volumes of 20,000 were not uncommon. Table 1 gives a summary of some of the traffic count data gathered in the past. No previous count data is available in the 5400 block of Marine Drive, and staff can only compare recent counts in the 5400 block Marine Drive to samples collected east and west of Nelson Avenue.

TABLE 1: Vehicle Volumes on Marine Drive (24 Hour Totals)

<u>Location</u>	<u>Date</u>	<u>Volume</u>
5400 block west of Gilley east and west	91/11/28	9,400
4700 block east of Nelson	91/03/05	9,400
4600 block west of Nelson	83/03/15	19,400
	85/03/12	8,300
	87/03/03	9,300
	91/03/05	9,100

Since the opening of Marine Way, volumes on Marine Drive have dropped from 20,000 vehicles per day to their present volume of just over 9,000 vehicles.

The most recent count on Marine Way was conducted in 1988 east of Nelson Avenue where volumes were in the 37,000 vehicle per day range.

3.0 TRUCK TRAFFIC

As is the case with many residential collectors, Marine Drive attracts a number of trucks. Staff have liaised with Bylaw Enforcement staff who have indicated that they conduct routine checks for trucks off of truck route. Previous spot checks indicate that many of the trucks are under the legal weight limit (13,600 kg), and are legitimately using the road.

4.0 TRAFFIC SPEEDS

Staff have recently deployed speed detection equipment in the 5400 block of Marine Drive, and found data collected at this site to be typical of that found on collector streets. Staff have sent copies of the speed graphs (APPENDIX 6) to the RCMP for evaluation and action as required. At the time of writing, RCMP had recently monitored this section of Marine Drive for speeding as well as trucks off truck route. During 40 minutes of observation they only wrote 3 speeding tickets. Although this does not confirm a problem, RCMP staff indicated that they would again be monitoring this location in the future.

5.0 PARKING

As indicated in the letter from Mrs. Herchenson the parking problem mentioned is an isolated occurrence (during the Hare Krishna carnival in the summer). The main concern from residents is visual obstruction from parked vehicles. Staff will confirm the next carnival date with the Krishna organizers and install temporary 'No Parking' signs to provide adequate driveway clearances.

6.0 SUMMARY/CONCLUSION

In comparing current vehicle volumes to data collected in the past, it can be seen that traffic on Marine Drive has remained relatively stable. It is anticipated that volumes may further decrease upon completion of the 10th Avenue/20th Street Connector. This route will provide a direct link to 10th Avenue via Byrne Road.

To address bylaw concerns, staff have requested that the RCMP periodically enforce/monitor speeds and trucks off truck route."

Arising from the discussion of the report, the Committee recommended that the R.C.M.P. monitor speeding on Marine Drive. In addition, the Committee requested that municipal staff review the 'no truck route' signage on Marine Drive and examine the advisability of placing stop signs at three or four points on Marine Drive to deter commuter traffic.

E.

SMITH AVENUE AT PINE STREET

RECOMMENDATION:

1. THAT a copy of this report be sent to:
  - a) Lynne Eross, 3858 Forest St., Burnaby, B.C., V5G 1W8
  - b) Bill Wallace, Principal, Cascade Heights School, 4343 Smith Avenue, Burnaby, B.C., V5G 2V5

REPORT

The Assistant Director Engineering - Traffic and Engineering Systems submitted the following report to the Committee:

1.0 BACKGROUND:

"A letter from Lynne Eross to the Traffic Safety Committee has been referred to the Traffic Division of the Engineering Department. On behalf of parents of Cascade Heights Elementary School students, Ms. Eross outlined the following concerns:

- the excess speed of vehicles travelling through the 30 kmh 'school zone' on Smith Avenue in front of the school
- the distance between the stop bar (on the southbound approach) and the crosswalk

On 1991 November 14, a staff member from the Traffic Division made a site visit with Lynne Eross and Bill Wallace, Principal of Cascade Heights School. At that time an additional concern arose regarding the visibility of the school zone and 30 kmh signs on the west side of Smith Avenue (north of the school).

## 2.0 REVIEW AND CONCLUSIONS

Although students acting as 'school safety patrols' assist other children in crossing at this location, there is an increasing safety hazard posed by these speeding vehicles. On 1991 December 05, the Traffic Division conducted a speed study on Smith Avenue between Pine Street and Fir Street. The results revealed that a number of vehicles are exceeding the posted speed limit between the hours of 08:00 and 17:00. A copy of this graph (APPENDIX 7) is attached to this report which has also been forwarded to the R.C.M.P. Traffic Section for review.

Ms. Eross was also concerned that vehicles travelling southbound on Smith Avenue stopped too close to the crosswalk. She suggested that the existing stop bar painted on the road be removed and a new one painted further back from the crossing. The standard for school crosswalks does not include stop bars. The reason this crosswalk has one in place is that when Burnaby's school crosswalks were upgraded to the present standard (thermoplastic zebra striping), the painted stop bars which were part of the previous crosswalk (parallel lines) were left in place to wear off. This is generally considered to be a sufficient and most cost effective way of dealing with such redundant markings. If the school patrols stand further north of the crossing when stopping traffic, this should ensure that vehicles stop in advance of the crosswalk markings. However, if the obsolete stop bar remains a problem staff will have it mechanically eradicated.

There seems to be a reduced driver awareness of the school zone sign and the 30 kmh tab on the west side of Smith Avenue (north of the school), because of the height of the signs and also the fact that they are located above 'no stopping, bus zone' signs. To correct this, an additional school zone sign and larger 30 kmh tab will be installed at the northwest corner of Smith Avenue and Spruce Street. This will give additional advance warning of the speed limit change."

## F. RADAR VAN INITIATIVE

### RECOMMENDATIONS:

1. THAT Council endorse in principle the Radar Van Traffic Safety Initiative proposed by Mrs. Marina Abercromby.
2. THAT the Traffic and Transportation Committee (Traffic Safety Division) members, including staff representatives, assist Mrs. Abercromby in the establishment of a society to oversee the implementation of a Radar Van/neighbourhood traffic safety program in Burnaby.
3. THAT a copy of this report be sent to Mrs. Marina Abercromby, 8076 Government Street, Burnaby, B.C.

REPORT

The Assistant Director Engineering - Traffic and Engineering Systems submitted the following report to the Committee:

"BACKGROUND

At its last meeting, the Committee received Mrs. Marina Abercromby as a delegation. In her presentation, Mrs. Abercromby outlined how the Surrey Crime Prevention Society used a radar equipped van, staffed by qualified volunteers to raise community consciousness about speeding traffic. She concluded by introducing Mr. Mike Robinson, Executive Director, Surrey Crime Prevention Society. Mr. Robinson drove the Society's radar speed van to Burnaby for this meeting and demonstrated the operation of the van in the Municipal courtyard.

THE RADAR VAN - HOW IT WORKS

The van is parked at locations where speeding is a concern, and drivers are informed by signs of the speed limit and their own speed as captured by radar. Some press cuttings outlining the program are attached to this report as APPENDIX 8 and a copy of the Training Manual for the Surrey program is available through the Clerk's office.

PROGRAM EFFECTIVENESS

Staff understand that the Surrey program has won sufficient local support that a second 'radar van' is being acquired and adjacent communities are setting up their own programs. The 'What's Your Hurry Surrey' program was established through considerable local resourcefulness and initiative but similar programs have been successfully implemented elsewhere, most notably in Seattle.

As a community based initiative staffed by local volunteers, the program has a greater potential for raising safety awareness than many other types of traffic safety campaigns. Operational success however is contingent upon a strong liaison with local police.

ESTABLISHING A PROGRAM IN BURNABY

Mrs. Abercromby has requested assistance in establishing a radar van program for Burnaby with special emphasis on school areas. Costs of the program are well defined through the Surrey model (e.g. APPENDIX 9 attached) and there is obviously scope for innovation, for example, in procurement of a van. More problematic are some of the organizational issues involved. Surrey's program was an offshoot of an existing community based crime prevention society.

In Burnaby it would appear that Mrs. Abercromby will need to 'build' an organization. Preferably this organization should be a legal entity in order to assure financial soundness. Staff have passed information on incorporating a non-profit society to Mrs. Abercromby and staff understand that the United Way would provide further advice as to the process of doing so. Staff note that a board of directors (a minimum of five members) is required for incorporation.

Once incorporated as a society, 'Burnaby Traffic Watch' (or whatever name is chosen by the group) will be in a position to more readily secure funding from a variety of community sources. More importantly, other members of the board will be able to share the organizational load currently borne solely by Mrs. Abercromby.



A variety of organizational detail will have to be attended to and ideally some Municipal staff and Committee resources could facilitate matters. For example, staff understand that office space at the Burnaby Heights School, which houses other community organizations, may be available for nominal rental through our Social Planning Department.

CONCLUSIONS

Staff readily conclude that the radar van initiative proposed to the Committee is a feasible and most desirable program. Its ultimate success will be contingent upon the willingness of dedicated Burnaby residents such as Mrs. Abercromby. Staff's recommendations are directed at assisting Mrs. Abercromby in establishment of a program and have been reviewed with her."

G. CORRESPONDENCE FROM THE INDEPENDENT CANADIAN TRANSIT UNION LOCAL 1 1991 DECEMBER 18

RECOMMENDATION:

1. THAT copies of this report be sent to:
  - a) Independent Canadian Transit Union, and
  - b) B.C. Transit Authority.

REPORT

The Assistant Director Engineering - Traffic and Engineering Systems submitted the following report to the Committee:

"Council, at its regular meeting of 1992 January 06, received correspondence from the Independent Canadian Transit Union (ICTU) Local 1 requesting that bus routes be increased in priority for snow and ice control. This in turn was referred to the Traffic Safety Committee.

As the ICTU states in their letter, municipal priorities for snow and ice control are:

1. Arterials
2. Collectors
3. Bus Routes
4. Residential streets on steep grades with one exit

A large percentage of bus routes are on arterials and collector roads already. A staff review indicates over 90% of bus routes have an existing priority higher than a 3 now. In addition, because transit routes are intended to act as 'collectors' of people, staff propose that they be treated as such.

Staff contacted the ICTU to discuss their concerns. The discussion identified that areas of concern included level and timeliness of service response in the marginal icing situations. The Engineering Department currently has a foreman on call outside of regular working hours who responds to emergency calls concerning snow and ice control. The level of response is determined by the number and type of calls received from the public and various agencies such as Transit, RCMP, Parks Patrol, etc. as well as considering predicted weather reports.

The service response time to undertake the various priorities varies based on the time the foreman receives the call and the nature and severity of the conditions. The ICTU's main concerns related to the timeliness of response from the time of their call. Staff acknowledge this concern and have implemented measures to improve service. More specifically, the night dispatcher will actively contact other agencies such as Transit and the RCMP when temperatures and weather conditions indicate the potential for icing rather than wait for calls to come in. This will promote and improve communications and provide the foreman with the best information available to enable an effective early response.

With regard to updating truck routing, each sanding/plowing truck is currently provided with a map that indicates the routes in order of priority. The route books are updated each Fall to reflect any changes in transit routes. These maps are reviewed with the drivers at an annual refresher training seminar.

Staff have reviewed the gist of this report with the correspondents who are in accord with staff's intentions. Staff note that the objectives are not at variance with those of the correspondent and trust that better communication in the future will maximize safety."

Arising from the discussion, the Traffic Safety Division requested that staff prepare a report for the Committee's consideration which reviews the use of salt versus a sand/salt mixture on roads particularly in the south slope area of Burnaby.

MEMBERS:

Mr. W. Anderson  
Mr. D. Baker  
Mr. W.B. Bennett  
Mr. M. Bloomfield  
Mrs. L. Brown  
Mrs. G. Evans  
Mr. T. Hulme  
Mr. E. Fourchalk  
Mr. D. Ramsbotham  
Mr. W.B. Roxburgh  
Mr. R. Weston

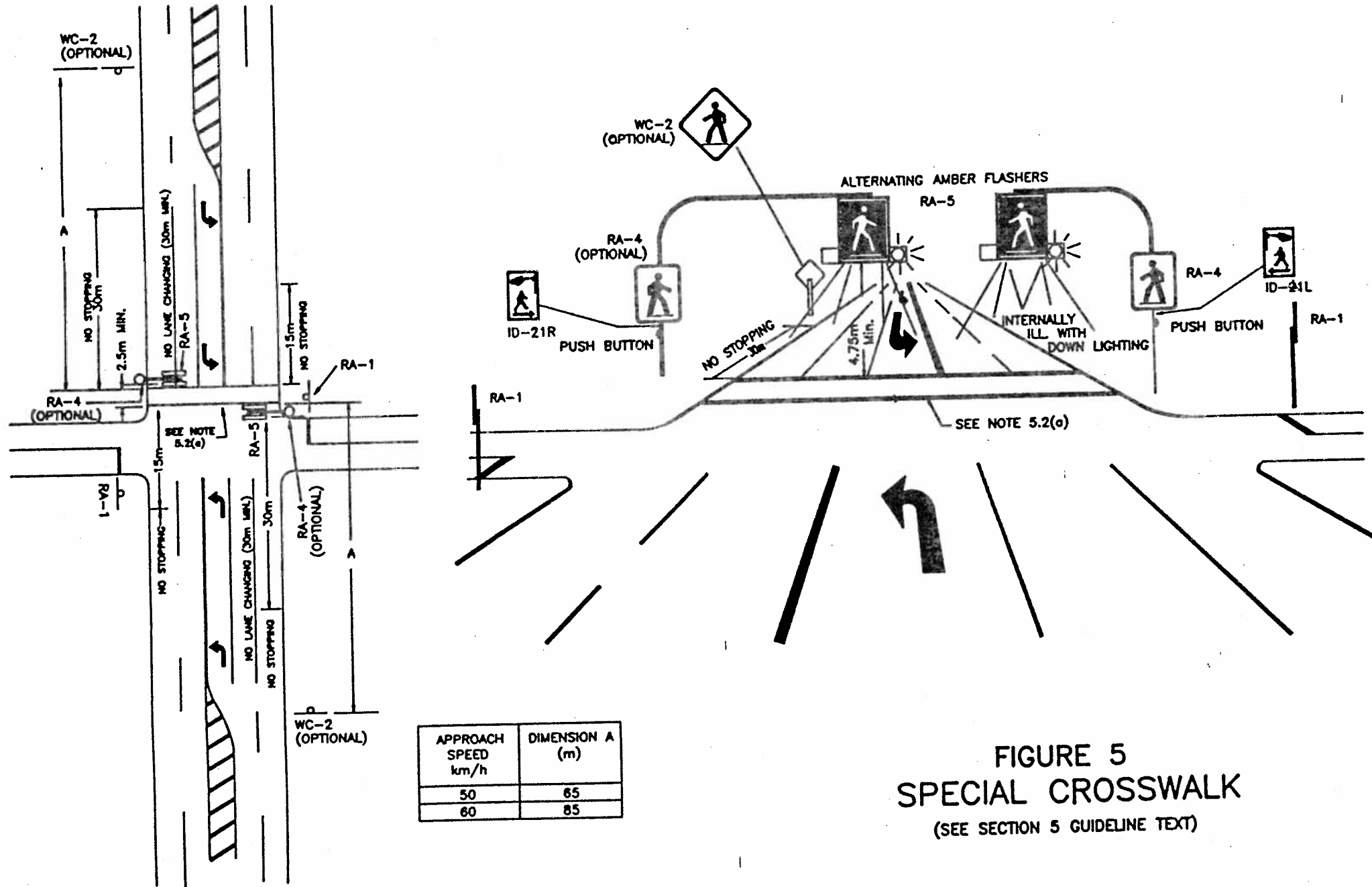
Respectfully submitted,

Alderman J. Young  
Chairman

Alderman D. Evans  
Member

Alderman D. Lawson  
Member

Alderman C. Redman  
Member



APPROACH SPEED km/h	DIMENSION A (m)
50	65
60	85

**FIGURE 5**  
**SPECIAL CROSSWALK**  
(SEE SECTION 5 GUIDELINE TEXT)

# DRAFT

## WHEN CROSSING THE STREET

The Motor Vehicle Act (Section 181) defines the rights-of-way between vehicle and pedestrians at crosswalks without traffic control signals as follows:

- "(1)... the driver of a vehicle shall yield the right-of-way to a pedestrian ... when the pedestrian is crossing the highway in a crosswalk and the pedestrian is on the half of the highway on which the vehicle is traveling, or is approaching so close from the other half of the highway that he is in danger.
- (2) A pedestrian shall not leave a curb or other place of safety and walk or run into the path of a vehicle that is so close it is impracticable for the driver to yield the right-of-way.
- (3) Where a vehicle is slowing down or stopped at a crosswalk or at an intersection to permit a pedestrian to cross the highway, the driver of a vehicle approaching from the rear shall not overtake and pass the vehicle which is slowing down or stopped.
- (4) A pedestrian, cyclist or the driver of a motor vehicle shall obey the instructions of an adult school crossing guard and of a school pupil acting as a member of a school patrol..."
- In the context of the Motor Vehicle Act, every street intersection includes crosswalks each ~~has~~ whether marked or not. Thus, in theory, a pedestrian enjoys a considerable right of priority. Unfortunately, it is only a minority of drivers which is courteous enough to yield to pedestrians. Pedestrians should note that "when a pedestrian is crossing a highway at a point not in a crosswalk, he shall yield the right-of-way to a vehicle" (Section 182).

Marked Crosswalks, (apart from those at signals) are generally provided where there are significant pedestrian volumes that have to be marshalled to an appropriate crossing point. Pedestrians should not assume that they are any less vulnerable because a crosswalk is marked.

Special Crosswalks - The Municipality has installed its first special crosswalk at the Royal Oak Station. At night this crosswalk design provides downward illumination of crossing pedestrians and presents an internally illuminated crosswalk sign to drivers. When pedestrians wish to cross at this crosswalk they should press a button to activate a flashing yellow beacon that is intended to catch the driver's eye and further alert him/her to the presence of pedestrians. However, the pedestrian must not cross until it is safe to do so.

Pedestrian signals provide the highest level of protection (apart from grade separations) to crossing pedestrians. However, pedestrians should be aware of the following rules:

1. When you arrive at the crosswalk and the signal indicates "Do Not Walk", push the button on the signal pole.
2. Wait until the signal indicates walk by showing the figure of a person walking. Then, and only then, do you step from the curb and again only after you are sure all vehicles have stopped.
3. While walking across the street the "Walk" indication may be out and the "Do Not Walk" come on. When this happens, continue crossing as there is a clearance during the start of a "Do Not Walk" that allows pedestrians on the crosswalk to get to the far curb before the green traffic signal comes on.
4. If you push the button for a walk signal and it does not change right away, be patient. If pedestrian call had just been completed the signal will not return to the pedestrian until the vehicular traffic has been given a guaranteed time, usually 30 seconds in which to move off.
5. NEVER START TO CROSS UNLESS THE SIGNAL INDICATES "WALK".

TRAFFIC REVIEW FOR THE HOLDOM AVENUE AND BROADWAY INTERSECTION  
BURNABY, BRITISH COLUMBIA

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**EXECUTIVE SUMMARY**

In the three-year period between 1988 and 1990, a total of 65 motor vehicle accidents have been reported at the intersection of Holdom Avenue and Broadway, in the District of Burnaby. In addition, significant queuing and delays have been observed at the intersection during the peak traffic periods. A review of the intersection safety and traffic operations was initiated in an attempt to mitigate the high accident rate and the apparent operational inefficiency of the intersection.

A systematic approach was taken to review the traffic characteristics of the study intersection. The analysis included the review of mechanical and manual traffic counts, intersection performance and motor vehicle accident summaries. In addition, a comprehensive traffic conflict study was performed.

The significant findings of the analysis are summarized as follows:

1. The eastbound and westbound left-turn movements are operating at unsatisfactory levels of service E, or worse during the morning peak hour period and therefore, warrant consideration for improvement.
2. The eastbound left-turn and through movements as well as the westbound left-turn movements are operating at unsatisfactory levels of service E, or worse during the afternoon peak hour period and therefore, warrant consideration for improvement.
3. A total of 65 motor vehicle accidents occurred at the study intersection during the three-year period between 1988 and 1990.
4. The increasing frequency of motor vehicle accidents between 1988 and 1990 can be attributed to the growth in traffic volumes utilizing the intersection.
5. Crossing accidents accounted for approximately 78 percent of all accidents at the study intersection.

TRAFFIC REVIEW FOR THE HOLDOM AVENUE AND BROADWAY INTERSECTION  
BURNABY, BRITISH COLUMBIA

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6. The occurrence of crossing accidents can be attributed to the poor performance of the Broadway approach movements. As a result of the poor performance of these movements, motorists become impatient and drive aggressively. Motorists use insufficient crossing gaps in the northbound and southbound traffic, resulting in crossing accidents.
7. The results of the review indicated that property damage accidents accounted for 91 percent of all accidents while personal injury accidents accounted for approximately nine percent of all accidents at the study intersection. The low incidence of personal injury accidents can be indirectly attributed to the low speeds of the minor street approach movements.
8. A total of 62 traffic conflicts were observed at the study intersection during the two-day observation period.
9. Crossing conflicts represented 52 percent of all conflicts observed at the study intersection.
10. The proportion of traffic conflicts which were observed to occur during the morning and afternoon peak periods was 44 and 35 percent, respectively. These results are consistent with the findings of the performance analysis which indicated that the eastbound through and left-turn movements and westbound left-turn movements are operating at levels of service E, or worse during the morning and afternoon peak hour periods. Therefore, the occurrence of traffic conflicts is, in general, related to the intersection performance.
11. The traffic conflicts can be attributed to the poor performance and the lack of adequate crossing gaps in the Holdom Avenue traffic stream which resulted in motorists becoming impatient and driving more aggressively. Eastbound and westbound motorists were observed to enter the intersection using marginally adequate gaps which resulted in conflicts.

TRAFFIC REVIEW FOR THE HOLDOM AVENUE AND BROADWAY INTERSECTION  
BURNABY, BRITISH COLUMBIA

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Therefore, the solution strategy was centred on the provision of adequate crossing gaps in the Holdom Avenue traffic stream, such that the northbound and southbound queues are accommodated within the available storage along Holdom Avenue, between Lougheed Highway and Broadway. A two phase solution strategy is proposed.

In the first phase, the provision of a traffic signal is proposed. The results of the analysis indicated that a traffic signal is warranted at the study intersection. The results of the performance analysis indicated that the improved intersection is anticipated to operate at acceptable levels of service during the morning, noon and afternoon peak hour periods.

However, the provision of a traffic signal at the Holdom Avenue and Broadway intersection is expected to introduce northbound and southbound queues at the study intersection. Furthermore, on-site observations indicated that during the peak 15 minute periods, southbound queues at the Lougheed Highway and Holdom Avenue intersection were observed to exceed the available storage and extend north, effectively blocking eastbound and westbound traffic on Broadway.

In order to accommodate the northbound and southbound queues on Holdom Avenue, a two phase solution strategy is proposed. The first phase of the improvement involves the use of "presence detectors" along Holdom Avenue, as shown in FIGURE 5.2. When the southbound queues extend to the presence detectors, the traffic controller would then suppress the green phase for the westbound left-turn and southbound through movements until the southbound queues at the Lougheed Highway intersection dissipate. Southbound queues due to the traffic signal, therefore, would be unchanged and all other movements could proceed through the intersection unimpeded.

The results of the review also indicated that, due to the longer green time required for the northbound and southbound traffic at the Broadway intersection, northbound queues are unlikely to extend to the Lougheed Highway intersection.

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In order to merge the two northbound through lanes adequately, the two-lane section should be continued on the exit leg for a distance of approximately 20 metres. The proposed configuration is illustrated in FIGURE 5.2.

In the second phase, traffic signal coordination between the two traffic signals at the Loughheed Highway and the Broadway intersections is proposed. Coordination between these two traffic signals will improve progression and minimize queuing and delays. However, current Ministry of Transportation and Highways policy precludes the provision of traffic signal coordination.

Therefore, in order to ameliorate the identified deficiencies, the provision of a traffic signal and the use of "presence detectors" are recommended. With the provision of these improvements, the traffic operations at the study intersection are expected to improve significantly during the morning, noon and afternoon peak hour periods.



1150 Fell Avenue  
Burnaby, B. C.  
V5B 3Y7

August 21, 1991

RECEIVED IN  
ENGINEERING DEPT.  
55-03-04  
SEP - 4 1991

Corporation of the District of Burnaby  
Engineering Department  
4949 Canada Way  
Burnaby, B. C.  
V5B 1M2

Dear Sirs:

Re: Crossing on Curtis at Fell

I am writing to you on behalf of the Parent Advisory Council at Aubrey Elementary School in regards to a pedestrian control crossing at Curtis and Fell.

It is of great importance to us as this affects our school children who have to cross Curtis or who are driven and have to make a left hand turn off Curtis. It is becoming more dangerous every day. It is not just a concern for our children at Aubrey but also for parents who have older children like myself who have to cross Curtis early in the morning to go to Burnaby North Secondary School or who take the bus to other schools as there is a bus stop on both sides of Curtis at Fell.

The cars race up Curtis hill from the light at Holdem and keep up their speed till they reach Kensington which is 7 blocks long with no access to a through street. The only north exit off Curtis is at the Kensington golf course parking lot, which also serves the Kensington recreation centre. Our school uses the centre during school hours in the winter and we have many students using it after school so we have to make arrangements for an adult to cross with them. We ourselves live on Fell and during peak hours we do not even attempt to go that way but rather go down Fell to Charles or Kitchener and over to Holdem.

With a lighted pedestrian control crossing it would enable a safer crossing for the whole area, including:

1. Our students at Aubrey and Burnaby North
2. Those in the community taking the buses and
3. Those using the recreation facilities that Burnaby provides such as, Kensington arena; Baseball Diamonds;

... Con't...

- 2 -

the golf course and Soccer fields which Cliff Avenue United Soccer Club has provided the field lighting and who are planning to build a club house.

I am looking forward to hearing from you regarding this matter as soon as possible as I would like to have a report for our next meeting.

If there is anything we can do to help solve this problem, I can be reached at 294-5725 or at the above address. I await your reply and thank you very much for looking into this on behalf of the Aubrey Parent Advisory Council.

Yours Truly

*Marie E. Kennedy*  
Mrs. D. Kennedy  
Chairperson, Aubrey  
Parent Advisory Council

- C.C. Traffic Department
- C.C. Ms. P. Sexsmith, Principal
- C.C. Aubrey Elementary School
- C.C. Kensington Recreation Centre

RECEIVED IN  
ENGINEERING DEPT.

October NOV-9 1991

Traffic & Safety Committee,  
Allerton, Jan Gary.

NR 307

PL.

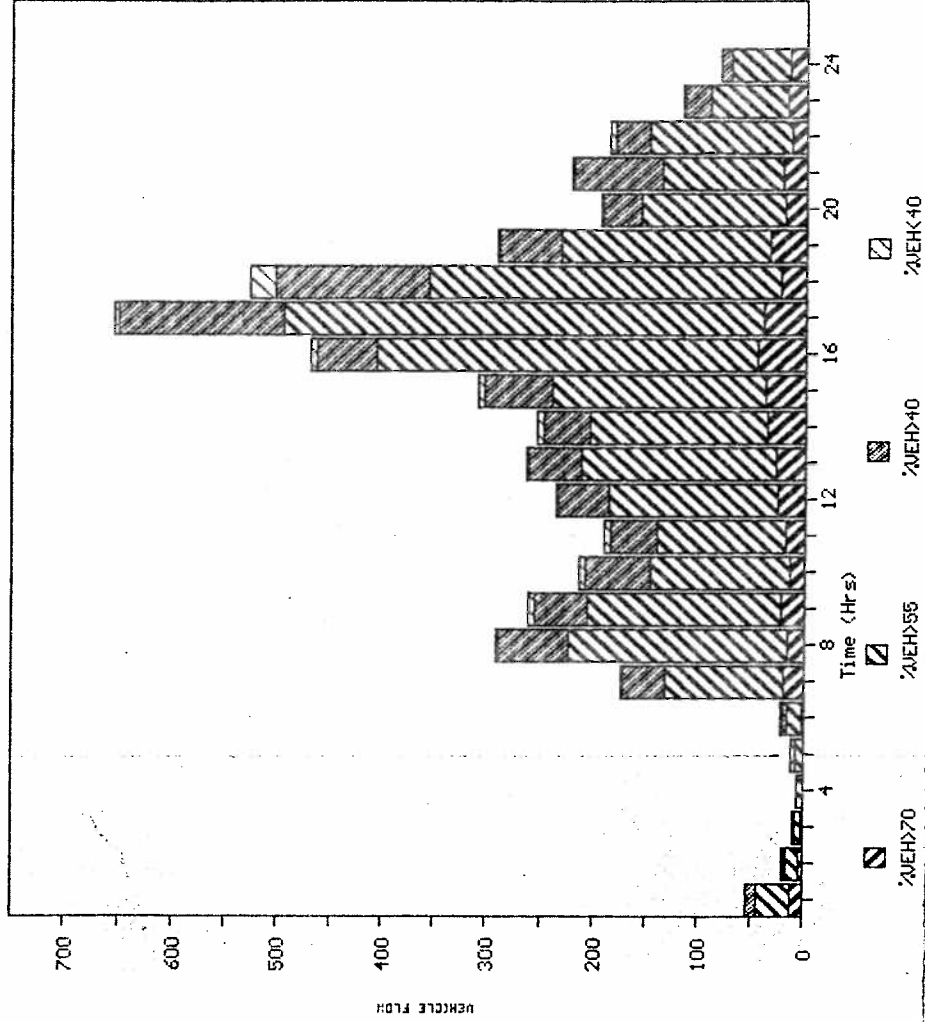
As a resident of 5489 Marine Drive of thirty three years, we were happy with the opening by Marine way, we see the traffic flow, bypass us for a short while Traffic today has returned heavier, include trucks, speed. It is a regular freeway, nothing to slow them down from Byrnes Road to Kerr & Marine. It will be spent. I have called Bob Bailey of Traffic Division 3 times as was assumed they would look into the matter. Nothing has been done. Another point to bring up is the Carnival like fare trucks have once a year, cars parked on marine Dr. 3 deep, Ald. Corrigan who I called, come down can attend to this. It's outrageous to even try to get down our steep driveway, to get onto the road, As long time, now both retired residents, we need some attention given to this very serious problem.

Mrs. P. Herckerson.

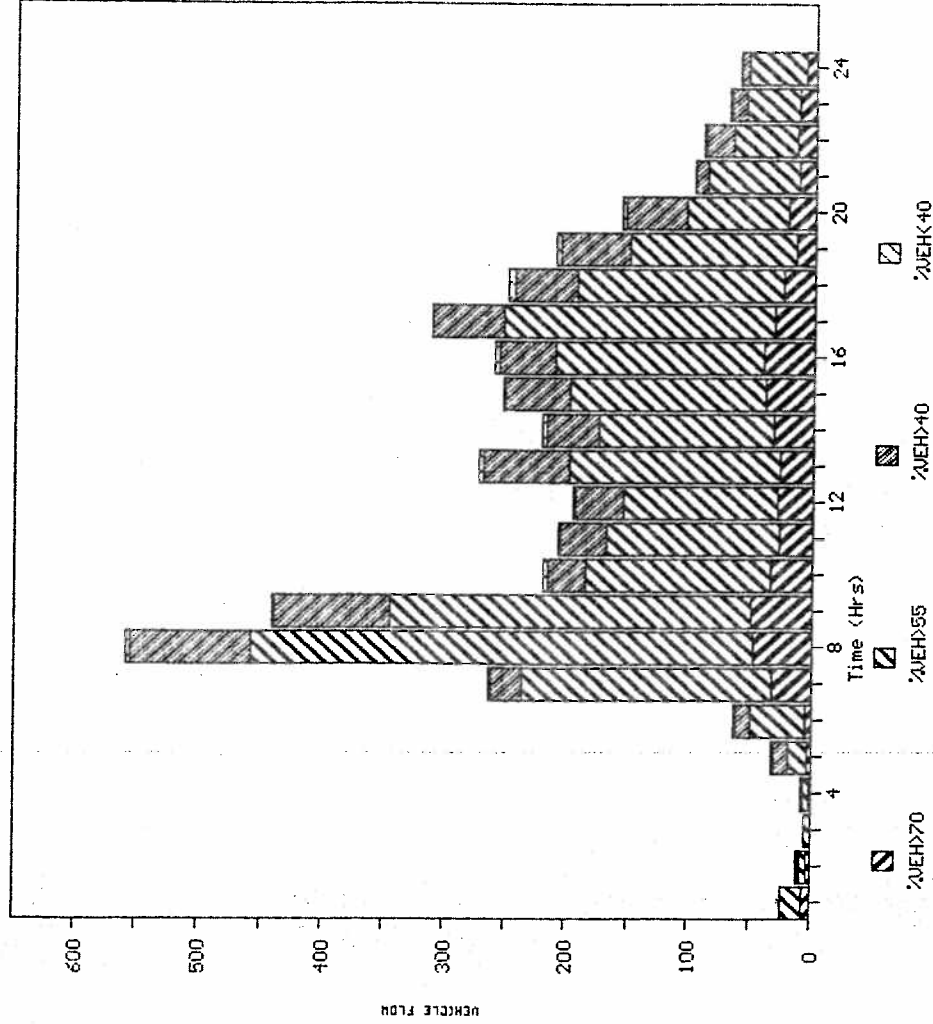
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MARINE DRIVE BETWEEN ROYAL OAK AND GILLEY  
EAST BOUND NOVEMBER 28, 1991

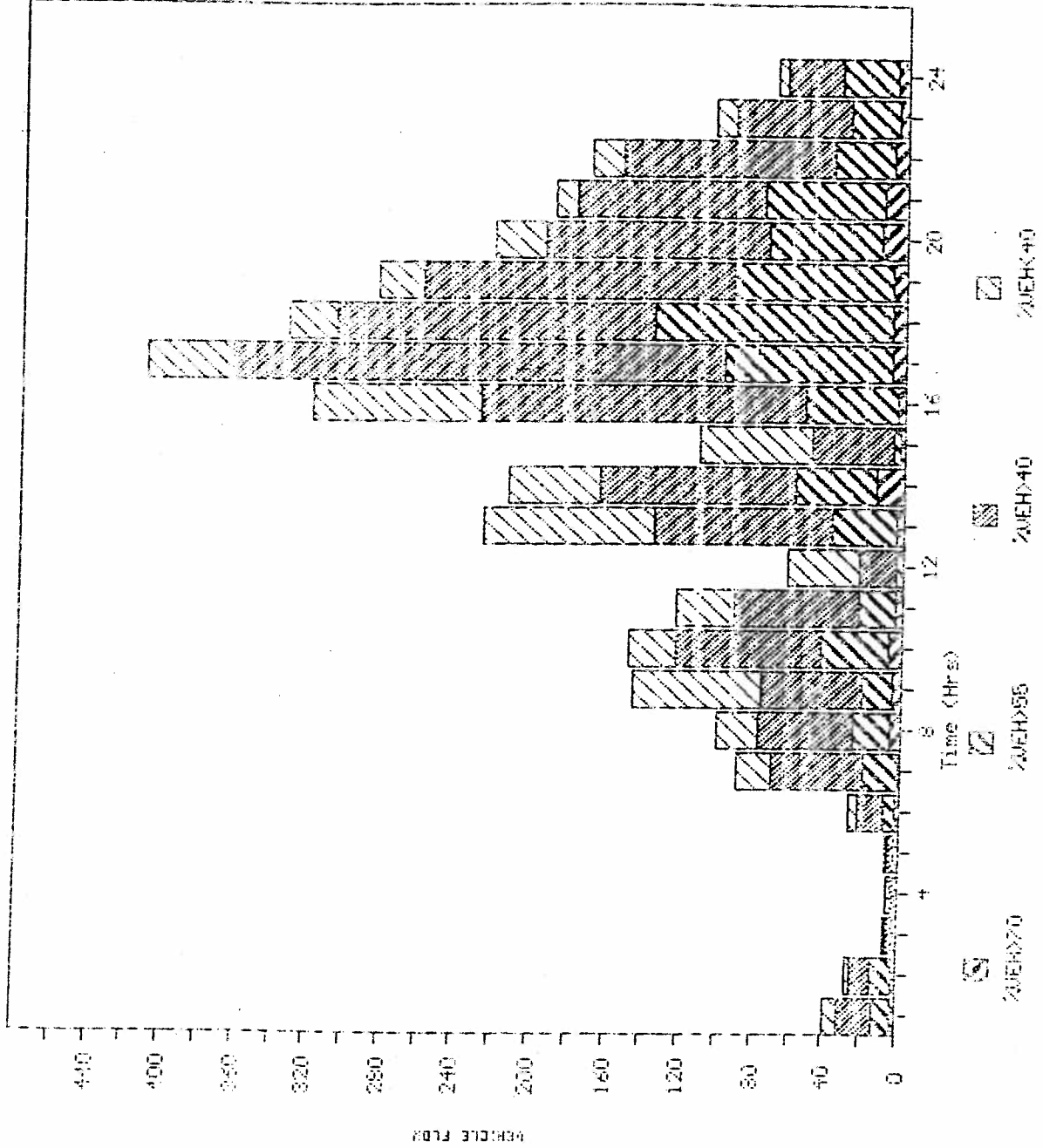
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MARINE DRIVE BETWEEN ROYAL OAK AND GILLEY  
WEST BOUND NOVEMBER 28, 1991



SMITH BETWEEN PINE AND FIR  
 NORTH AND SOUTH BOUND DECEMBER 5, 1981



# Eyes on Surrey speedsters



Staff photo by Peter Hubert  
**Mike Robinson demonstrates a neighborhood radar-trap vehicle to students of Surrey's William Beagle school.**

Surrey is really up to speed in slowing down neighborhood hot-rodders.

The successful crime-prevention technique of enlisting community help is now being used to promote traffic safety.

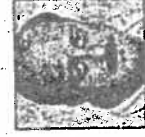
The Surrey Community Crime Prevention Society has begun setting up its own radar trap in troublesome areas to monitor traffic speed.

"The radar gun is mounted in the back of van and hooked to a screen in the rear window which flashes up the speed of each car," explains society executive director Mike Robinson.

"We can't ticket anybody, of course, but most times it has the desired effect. People slow down when they see the speed they're doing."

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## Volunteers man radar-trap van



**Keith Morgan**  
 Getting There

Hall: "The police can't be everywhere so we're very supportive of this project. It will undoubtedly do a lot to make our roads safer."

Similar programs are being operated successfully in the Seattle area and in Portland, as mentioned in a column last year. In the Seattle area there could soon be up to a dozen roving vans.

People regularly call here to complain about their neighborhood speedster. They're frightened to get into a row with the neighbors and they know the police can't come and sit on the guy, so the problem continues.

But this concept solves those difficulties. I especially like the non-threatening, non-punitive approach which makes it a good educational tool.

There's no confrontation; the volunteers just record the speeds and write up a report to the police with a recommendation. And the flashing of the speed is often a driver to ease off the gas.

Traffic sections in the rest of the Lower Mainland should take the lead from Surrey. There are lots of volunteers out there, ready, willing and able.

Call the traffic hotline on 732-2025 or write to: Getting There, The Province, 2250 Granville St., Vancouver, V6H 3G2.

"We monitor speeds and inform the Surrey RCMP and they move it to do real enforcement."

"Sometimes cars pull over in front of the van and wait for the ticket... we leave them to stew for a few minutes."

At the moment the group of volunteers, all trained by the RCMP traffic section, is concentrating on 30 km/h school zones. And they're amazed at the number of people zipping through at 70 km/h.

Says Robinson: "There's a problem driver on every block, but in the past it's always been difficult to do something about the bad neighbor."

"Now we have an opportunity to move into a neighborhood and see what's going on. The crime-prevention society is committed to making this a safer Surrey and that includes our roads."

The equipment is all donated by local businesses and the venture has the full backing of the RCMP. Says Surrey RCMP Insp. Rick

## Warning shocks speeding drivers

By Al Lewis

A ride that reads vehicle speed and flashes it on a large screen for the driver to see may be an effective way to warn motorists in school and playground areas.

But Capt. Steve Giesinger, of the Langley RCMP Crime Prevention Unit, says the equipment might also be used occasionally in conjunction with an even more effective deterrent — ticketing.

On Tuesday, at three Langley area schools, the radar, courtesy of the Surrey Community Crime Prevention Society, was used to warn speeding motorists, without ticketing.

Langley School Board school vice principal Steve Shipley said he got the idea to ask the Surrey society to come here after seeing a ITCV news clip about the new program.

The program has run in Surrey since January, and the society invites one of just three in the Lower Mainland.

The Langley event was run with the cooperation of Langley RCMP.

Giesinger, who accompanied the civilian volunteers from Surrey, says: "It is a great idea."

The officer says there are two types of speeders, those who are not aware they are speeding, and those that don't care.

Most fall into the former category, and for those drivers the reaction was immediate, when they saw their speed flashed up on the billboard.

"It was really interesting to watch. The reaction was just like a policeman had jumped out of the bush," Giesinger said.

Surrey said he is concerned about the speeds vehicles travel on streets in the area.

Most fall into the former category, and for those drivers the reaction was immediate, when they saw their speed flashed up on the billboard.

Shipley said there are many younger students, Grades 8 and 9 who are walking this street daily, and to compound the danger a school bus with a schooler children from Cloverdale drops students off on the west side of 36th Avenue and they must cross over children off on the west side of the street.

Giesinger said that while the warning system is good, in Surrey the society doesn't want familiarity to breed contempt for the nonflash warning.

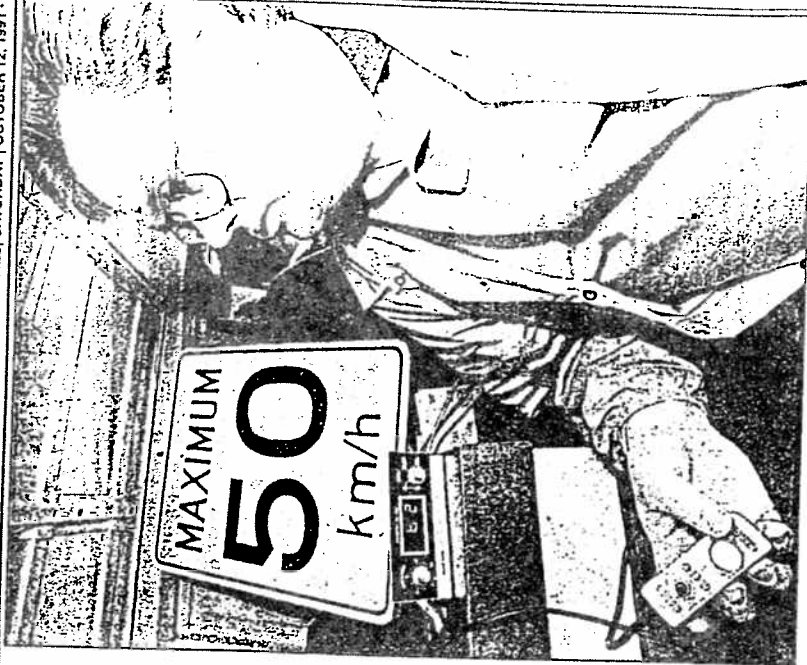
So they have been trying to work out an agreement with Surrey RCMP to take over the equipment every month or so, and to report it while handling out real speeding tickets.

Giesinger thinks that is an idea which might work well if Langley gets similar equipment next spring.

The school district, Insurance Corporation of B.C., Ministers Against Drunk Drivers, the RCMP and other community groups has recently agreed to take on gathering funds for purchase of the radar equipment.

If so, Langley drivers speeding through school zones may soon regularly see a flashing warning. And randomly, they may also see police lights flashing simultaneously.

LANGLEY TIMES, SATURDAY, OCTOBER 12, 1991 - 3



Surrey Community Crime Prevention Society executive director Michael J. Robinson clocks a speeding car at 62 km/h in a 50 km/h zone along 56 Ave. near Langley Secondary. During school hours the speed limit is lowered to 30 km/h. This photo was taken during lunch on Tuesday.

John Gordon photo



**SURREY COMMUNITY CRIME PREVENTION SOCIETY**

#104 - 14914 - 104th Avenue, Surrey, B.C. V3R 1M7  
TELEPHONE: 589-5279 FAX: 589-5265

# Neighbourhood Traffic Safety Program

## Radar Readerboard Price and Specifications Information

Correct as at time of printing, information subject to change.

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### Part ONE

We Supply...

- 1 Muni Quip T3 handheld Radar Unit (or equivalent).
- 1 Readerboard, lighted and ready to install.
- 1 set of suitable wiring harness to connect the above.

YOUR COST (FOB Surrey)..... \$2780.00 plus PST/GST.

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### Part TWO

You Supply a working radar unit, We Supply...

- 1 Readerboard, lighted and ready to install.
- 1 One set of suitable wiring harness to connect your unit and ours.

AND, full modifications to your radar.

NOTE: Radar must be dedicated to readerboard use as modifications connect it to the board permanently.

YOUR COST (FOB Surrey).....\$1150.00 plus PST/GST.

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### Part THREE

We Supply...

- 1. current model Ford Aerostar Van (new).
  - 1 Muni Quip T3 Handheld radar unit (or equivalent).
  - 1 Readerboard, lighted.
- AND, all installation, wiring etc.

YOUR COST (FOB Surrey)..... \$24,500.00 plus PST/GST.

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**We will be pleased to work with you to design any custom packages for your program Contact Mike Robinson, SCCPS, 589-5279.**

COOPERATION CURBS CRIME

