

THE CORPORATION OF THE DISTRICT OF BURNABY

TRAFFIC SAFETY COMMITTEE

FILE: 20-2

HIS WORSHIP, THE MAYOR
AND MEMBERS OF COUNCIL

Madam/Gentlemen:

REPORT OF THE TRAFFIC SAFETY COMMITTEE

1. Lane West of Cariboo Road between Armstrong Avenue and Monroe Avenue

Recommendations:

- (a) "That the entrance to the lane west of Cariboo Road at Armstrong Avenue be posted 'DO NOT ENTER'.
- (b) That Mrs. Edwin, 8988 Monroe Avenue, Burnaby, B.C., V3N 4E6, be sent a copy of this report.
- (c) That the residents of 8965 and 8987 Armstrong Avenue and 8966 and 8988 Monroe Avenue be encouraged to monitor the effectiveness of the 'DO NOT ENTER' sign."

R E P O R T

Arising out of a complaint received by the Traffic Safety Committee on 1981 September 22, on behalf of Mrs. Edwin, 8988 Monroe Avenue, regarding speeding in the lane adjacent her property, the Municipal Engineer prepared the following report, namely:

"At the last meeting of the Traffic and Safety Committee held on 1981 September 22, a complaint of a Mrs. Edwin of 8988 Monroe Avenue was raised regarding speeding in the lane adjacent her property.

We have investigated this complaint and have made the following observations.

The lane in question, which is paved, is contained within a 14 foot right-of-way, the normal lane right-of-way is 20 feet. The lane falls to the north from Armstrong to Monroe Avenue at about a 7% grade. The four properties flanking the lane have vehicle access to the lane.

We have from time to time in our observations of traffic at the intersection of Armstrong Avenue and Cariboo road noted that when traffic backs up along Armstrong Avenue the impatient driver will pull out of the line up, often well in advance of the lane, and then dart down the lane to enter Cariboo Road either off Monroe or Blumer Avenue the next street to the north. The three periods of the day when this is most likely to happen is in the morning and afternoon rush hours and again around 15:00 - 15:30 h when school is letting out. The latter drivers appear to be high school students.

It has been the observation of the adult crossing supervisor and ourselves that there is a hazard to the many children on the Armstrong Avenue sidewalk generated by these vehicles suddenly deciding to shortcut the intersection particularly during the 15:00 - 15:30 h period when the children's backs are to the traffic.

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We have suggested speed bumps to Mrs. Edwin but she cannot see being able to raise the required \$465.) from the four properties adjacent the lane.

It has been suggested by Mrs. Edwin that the lane be barricaded at Armstrong Avenue. We feel that this is too restrictive in view of the sporadic nature of the complaint. As the problem relates to northbound traffic in the lane off Armstrong Avenue a 'DO NOT ENTER' restriction posted at the entrance to the lane at Armstrong Avenue should be sufficient. Homes adjacent the lane would still be able to exit to Armstrong Avenue.

RECOMMENDATIONS:

- (i) THAT the entrance to the lane west of Cariboo Road at Armstrong Avenue be posted 'DO NOT ENTER'.
- (ii) THAT Mrs. Edwin of 8988 Monroe Avenue be sent a copy of this report."

- 2. Request for the Placement of a Concrete Abutment in the 7600 block Ulster Street

Recommendations:

- (a) "That a sign be placed on the boulevard adjacent the west side of the Merit Car Wash restricting all exiting vehicles to a left turn only.
- (b) That Mr. Don Schick, 7671 Ulster Street, Burnaby, B.C., V5E 2G1 and Mr. R.S. Leach, 7606 Ulster Street, Burnaby, B.C., be sent copies of this report."

R E P O R T

Council, 1981 August 24 referred a letter from Mr. R.S. Leach, 7606 Ulster Street, Burnaby, B.C., complaining of the use off lanes in the area of Canada Way and Ulster Street as a thoroughfare to gain access to and egress from a car wash located at Ulster Street and Canada Way to the Traffic Safety Committee for consideration and a subsequent report to Council.

Subsequently, a letter and petition was received from Mr. Don Schick, 7671 Ulster Street, Burnaby, B.C., requesting a placement of a concrete abutment in the 7600 block Ulster Street.

This matter was referred to the Municipal Engineer who reported as follows:

"We have considered the request that a barricade be placed in the 7600 block Ulster Street in a manner that it only blocks 50% of the roadway for the intent of slowing down speeders and would make the following comments:

- (i) Depending on which half of the road you block, one direction of travel would have to drive on the wrong side of the road for a distance to pass through the opening.
- (ii) Parking would have to be banned on the open side of the roadway back from the barricade for a sufficient distance to allow passing.

(iii) There is a potential for head-on collisions.

In our previous report we advised that the total volume of traffic on Ulster Street was quite low and did not seem to indicate that the street was being used by many non-local residents. The complaints have indicated that the vehicles that do speed on the street are vehicles that are exiting from the Merit Car Wash on the corner of Canada Way and Ulster Street.

We have checked the driveway access on Ulster Street into the car wash and have found that it is wider than the normal crossing, being about 60 feet at the curb. The traffic circulation to the gas pumps however caters to an entrance movement only, with their exit to Formby Street. Those vehicles however who use the car wash facilities exit to Ulster Street. It would appear therefore that if the purported speeders are generated by the Merit station they are confined to those motorists who use the car washing facilities.

The following treatment could be considered to alleviate the complaint:

- (i) Place a sign just west of the Merit access advising 'LOCAL TRAFFIC ONLY'. This sign however would be unenforceable and is not recommended.
- (ii) Reconstruct the driveway to the Merit station by making it narrower and directional, to Canada Way. This revision to the driveway would cost about \$800.00 and cannot guarantee exiting vehicles would not turn onto Ulster Street. There is also the problem of financing.
- (iii) Place a sign on the boulevard adjacent the west edge of the driveway advising all exiting vehicles they must turn left. This sign would be enforceable.

STAFF RECOMMENDATIONS:

- (i) THAT a sign be placed on the boulevard adjacent the west side of the Merit Car Wash restricting all exiting vehicles to a left turn only.
- (ii) THAT Mr. Don Schick of 7671 Ulster Street and Mr. Leach of 7606 Ulster Street be sent copies of this report."

3. Report of the School Crosswalk Warrant Sub-Committee

Recommendations:

- (a) "That the following warrants be adopted for the evaluation of a request for the installation of a crosswalk in a school zone, namely:

When the traffic density during the period when 85% of pupils cross is between 300 vehicles per hour and 500 vehicles per hour in 15 minute segments, then the crosswalk may be WARRANTED and a more detailed study and assessment is indicated. The following warrants are to be considered :

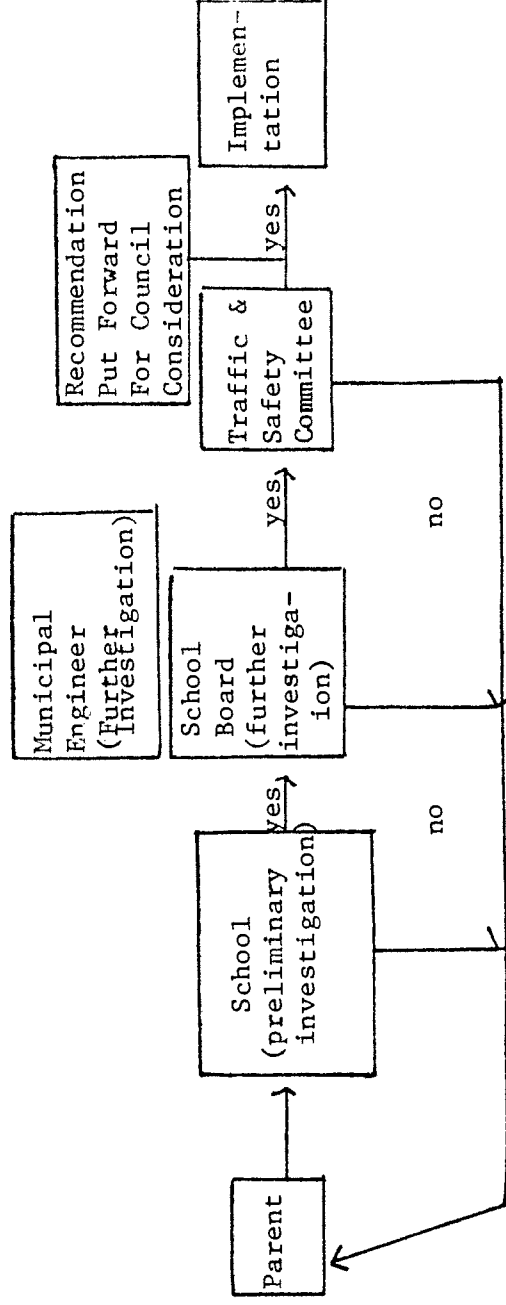
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- (i) Number of Students
- a minimum of 35 students using the intersection in question is required before a school crosswalk can be established.
- (ii) Speed of Vehicles
- if the traffic is consistently exceeding posted limits, then enforcement measures may be required to reduce a hazardous situation. If speeding persists, then a crosswalk may be warranted regardless of other circumstances at the crossing.
- (iii) Drivers Habits
- habits such as not stopping for children waiting to cross and passing vehicles stopped for crossing children should be corrected by enforcement or a crosswalk may be warranted.
- (iv) Turning Movement of Vehicles
- may be required if a percentage of the vehicles turning at the intersection is considered high enough to constitute a hazard to students.
- (v) Visibility
- if vision is restricted by a hill, curve, or other immovable obstructions, a crosswalk may be required.
- (vi) Location of Crosswalk
- crosswalks shall not be established if the distance to the school exceeds 4 blocks. If the crossing is more than 4 blocks from the school and there is a warrant for a school crosswalk, a pedestrian activated signal should be installed.
- (vii) Pedestrian Waiting Periods
- if students are required to wait for more than 30 seconds, a crosswalk should be installed.
- (viii) Gaps in Traffic Flow
- if the frequency of gaps of a minimum of 15 seconds is too low to prevent students from crossing, a crosswalk should be established.
- (ix) Accident History
- a crosswalk is required if there has been a maximum of five accidents in the vicinity of the intersection in question within a one year period."

(b) That appendix 'A', attached to this report, be used for the evaluation of school crossings.

(c) That a policy for requesting a crosswalk be developed along the following lines:



- (d) That a study on the hiring of a special constable be made in consultation with the Burnaby School Board.

R E P O R T

The Traffic Safety Committee on 1981 May 19 formed the "School Crosswalk Warrant Sub-Committee", comprised of Mr. B.G. Jones, Chairman, Alderman D.N. Brown, Staff/Sgt. B.M. Duncan and Mrs. Rosemary Rawnsley to review the existing warrants applied when a request is received to install a Crosswalk in a Burnaby School Zone.

Arising out of the meetings held by the "School Crosswalk Warrant Sub-Committee," the following interim report was presented to the Traffic Safety Committee on 1981 July 21, namely:

Background

"The sub-committee has met twice to consider the question of student safety in general, and warrants for school crosswalks in particular. The Committee was formed as a result of great concern in the community that increased traffic volumes and concomitant driver frustration has led to a situation around many schools in which student safety is in jeopardy. The sub-committee feels that there is no simple answer to the problem, but only through:

- improved student safety education,
- improved driver awareness,
- improved supervision of children,
- improved enforcement of traffic laws

can the safety of our children be improved. With respect to improved student safety education, in March of this year the Burnaby School Board approved the following recommendation:

That the Board undertake the development of a comprehensive traffic and student safety program which would include the following elements:

- (a) program development K - 12 to improve student attitudes and behaviours,
- (b) teacher in-service,
- (c) greater emphasis on training and coordination of district student patrols,
- (d) improved liaison with police, traffic and safety committee, schools and parent groups,
- (e) selection and training of adult guards/supervisors,
- (f) planning and coordination of 'Safety Village' concept,
- (g) enhance motivation and develop incentives for improving school safety programs,
- (h) evaluate usefulness of local Advisory Committee to deal with referrals from schools.

Hopefully this program will go a long way in helping this aspect of the safety program.

Meeting - July 15, 1981

The sub-committee met at the Burnaby School Board office and reviewed the warrants and procedures adopted in the City of Vancouver. Out of this discussion arose several recommendations.

School Crosswalk Warrant No. 3

The sub-committee agreed with the traffic densities indicated in warrants 1 and 2, but felt a need for greater degree of specificity in evaluating a crosswalk.

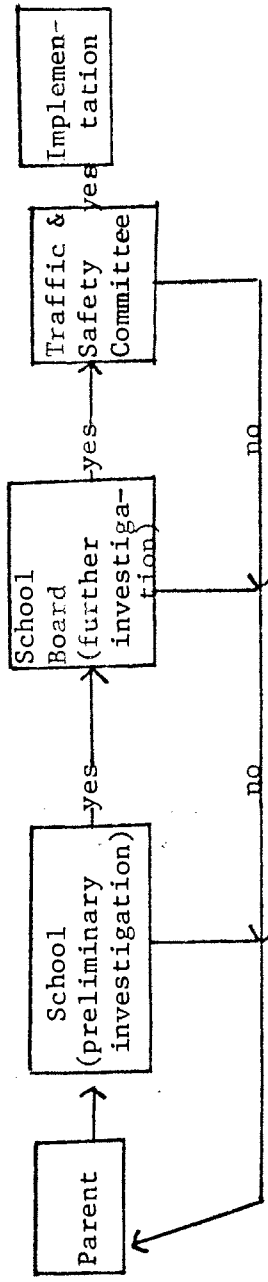
Recommendation 1 - That a review of school crosswalk warrant No. 3 be undertaken with a view to improving the clarity and specificity of criteria other than traffic density.

Recommendation 2 - That a form be developed for evaluation of a school crossing that includes the multiplicity of factors that affect student safety.

Policy on Requesting a Crosswalk

The sub-committee felt that there was confusion on the part of parents on the process to follow when requesting a crosswalk. The need for a well-defined process that permitted the opportunity for a screening at the school or school board level before coming to the Traffic and Safety Committee was recognized.

Recommendation 3 - That a policy for requesting a crosswalk be developed along the following lines:



Special Constable for Student Safety

The sub-committee explored the feasibility of hiring a special constable to assist the student safety program. The possibility of joint funding between the School Board and the Municipality was considered.

Recommendation 4 - That a study on the hiring of a special constable be made in consultation with the Burnaby School Board.

Reduced Speed Zones Around Schools

The sub-committee felt that the concept of reduced speed zones around schools had merit at least during the time students are travelling to and from school. Some of the problems associated with such speed zones were discussed and more information such as:

- practice in neighbouring jurisdictions,
- possibility of changing provincial regulations on 7 - 9, 4 - 6 speed signs,
- why our policy indicates that crosswalks shall not be installed on streets with reduced speed zones, was required.

Recommendation 5 - That a report on reduced speed zones around schools be prepared.

The Traffic Safety Committee subsequently tabled recommendations 1 - 5 as contained in the interim report of the School Crosswalk Warrant Sub-Committee to allow the Municipal Engineer an opportunity to respond to the recommendations contained therein.

The Municipal Engineer reported as follows:

"Having read through the submitted report of the sub-committee we offer the following comments:

RECOMMENDATION #1

The crosswalk warrant #3 at present includes more than just traffic density, it covers number and age of children, distance from existing traffic controls, accident history, sight distances, nature of parking and stopping, physical conditions prevailing, road width, possibility of rerouting pupils to a concentrated point, etc.

We are not quite sure what improvements are being requested as almost all conditions that could occur are subject to review. To try and specify exact numbers to each condition in our opinion makes the warrant somewhat inflexible whereas it should be flexible to the point where unforeseen conditions can lend support to the warrant.

RECOMMENDATION #2

This recommendation has probably been answered in our previous comment in that it is looking into a form that would assess a point rating to various conditions. Such a form could probably act as a guide but in the end a decision on any particular problem is going to be made on factors related to a specific location.

RECOMMENDATION #3

The policy as outlined has assigned the responsibility of evaluating the need for a crosswalk and associated traffic controls to the School Board. No Engineering input is indicated and the inference is that all requests for crosswalks, even those received by the Engineering Department, be referred to the School Board for evaluation and report to the Traffic and Safety Committee, who then without Council approval order implementation.

It is our opinion that may requests for traffic control devices on the public road system must be evaluated by the Engineering Department who have the trained personnel and the necessary equipment to properly conduct traffic studies. The Engineering Department also have the required experience to ensure that any controls that are recommended to Council are warranted and meet the requirement of the Canadian Manual on Uniform Traffic Control Devices.

The present system has always worked satisfactorily. In the past any input from the School Board has been accepted and considered in evaluating any concern related to student safety on the street system and we would hope this would continue.

RECOMMENDATION #4 - SPECIAL CONSTABLE FOR SUPERVISION OF SCHOOL PATROLS

The Engineering Department previously made a similar recommendation to the Traffic and Safety Committee but it was turned down. The feeling of the Committee, supported by the R.C.M.P., at that time was that supervision of school patrols and safety instruction could best be handled by the R.C.M.P. who were a familiar authority to school age children.

RECOMMENDATION #5 - REDUCED SPEED ZONES

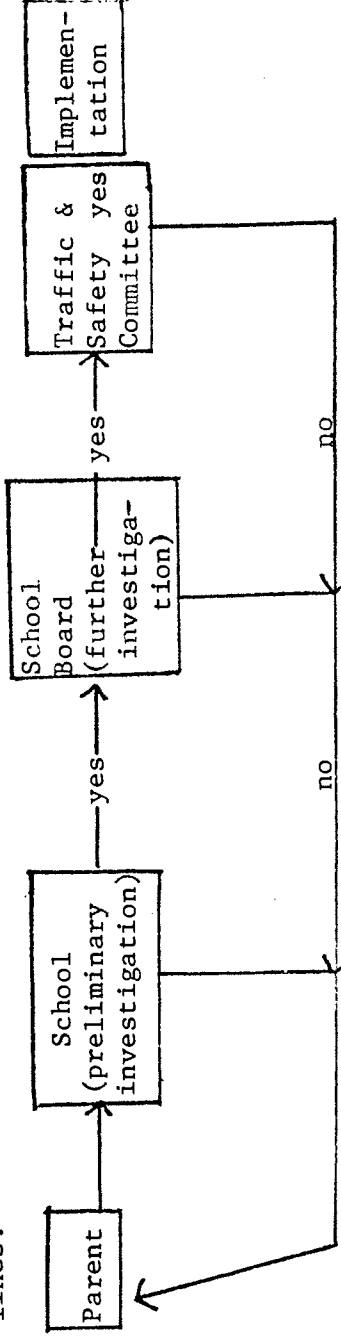
(a) Practice in neighbouring jurisdictions.

While it may be of interest to check into speed control practices of neighbouring jurisdictions, it should not be taken as a guide to what we should do in Burnaby. Any reduced speed control placed on a street should be realistic if it is to be accepted and obeyed by the majority of motorists, not placed on a street simply to pay lip service to someone who is predicting all manners of doom and gloom without such speed restrictions.

(b) We agree in principle with what is being suggested here in having reduced speed limits that are posted apply only to the periods when children are on the street. We believe the times noted are not realistic, i.e. 7:00 - 9:00, 4:00 - 6:00. They should be 8:00 - 9:00, 12:00 - 1:00 and 2:30 P.M. - 3:30 P.M. Having said that, we should say that having such a multitude of time periods could be confusing to legislate, post and enforce. Why not just have the police enforce reduced speeds in the vicinity of schools when children are present on the streets.

(c) Our policy states that reduced speeds should not be placed on roads with marked and patrolled crosswalks as it was felt to be an unnecessary restriction when all children were being directed to cross at controlled locations."

The Traffic Safety Committee on 1981 September 22 referred recommendations 1, 2 and 5 back to the Sub-Committee for further review, and adopted recommendation #4, 'That a study on the hiring of a special constable be made in consultation with the Burnaby School Board', and recommendation #3, 'That a policy for requesting a crosswalk be developed along the following lines:



- with the following amendments:

- (i) That input from the Municipal Engineer be included on a parallel with School Board input.
- (ii) That Council give consideration to these requests prior to implementation.

It was agreed at this time that the study on the hiring of a special constable would review the costs involved, including the feasibility of cost sharing amongst the participating parties, and would be conducted by the Municipal Engineer, the Superintendent of the Burnaby School Board, with input from the Burnaby Detachment, R.C.M.P.

Subsequently, on 1981 October 20 the School Crosswalk Warrant Sub-Committee presented the following report to the Traffic Safety Committee, namely:

REPORT OF THE SCHOOL CROSSWALK SUB-COMMITTEE

October 14, 1981

The School Crosswalk Sub-Committee was established in the spring to review the warrants for school crosswalks and student safety in Burnaby.

On July 21 the sub-committee made five recommendations to the Traffic Safety Committee. These recommendations, which were largely requests for information, were tabled by the Committee pending a report from the Engineering Department. Two months later, the September 22nd meeting of the Committee, the Engineering Department responded to the recommendations. At this meeting Recommendation 3, on a process for dealing with requests for crosswalks, was approved with amendments, and Recommendation 4, on a request for a feasibility study on the hiring of a special constable, was approved by the Committee. The Sub-Committee felt that the information requested in Recommendations 1, 2, 5 was not provided by the Engineering Department and hence these matters were tabled to provide an opportunity for the Sub-Committee to do their own research. Neighbouring jurisdictions, primarily Vancouver, were reviewed as to their practice and the following recommendations are being made.

RECOMMENDATION #1 - That the following warrants be adopted.

SCHOOL CROSSWALKS

WARRANTS

(see Appendix 'B' for existing warrants)

When the traffic density during the period when 85% of pupils cross is between 300 VPH and 500 VPH in fifteen minute segments, then the crosswalk MAY BE WARRANTED and a more detailed study and assessment is indicated. The following warrants are to be considered:

- a) Number of Students - a minimum of thirty-five students using the intersection in question is required before a school crosswalk can be established.
- b) Speed of Vehicles - if the traffic is consistently exceeding posted limits, then enforcement measures may be required to reduce a hazardous situation. If speeding persists, then a crosswalk may be warranted regardless of other circumstances at the crossing.
- c) Drivers' Habits - habits such as not stopping for children waiting to cross and passing vehicles stopped for crossing children should be corrected by enforcement or a crosswalk may be warranted.
- d) Turning Movement of Vehicles - may be required if a percentage of the vehicles turning at the intersection is considered high enough to constitute a hazard to students.
- e) Visibility - if vision is restricted by a hill, curve, or other immovable obstruction, a crosswalk may be required.
- f) Location of Crosswalk - crosswalks shall not be established if the distance to the school exceeds four blocks. If the crossing is more than four blocks from the school and there is a warrant for a school crosswalk, a pedestrian activated signal should be installed.
- g) Pedestrian Waiting Periods - if students are required to wait for more than thirty seconds, a crosswalk should be installed.

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- h) Gaps in Traffic Flow - if the frequency of gaps of a minimum of fifteen seconds is too low to prevent students from crossing, a crosswalk should be established.
- i) Accident History - a crosswalk is required if there has been a maximum of five accidents in the vicinity of the intersection in question within a one year period.

RECOMMENDATION 2 - "That appendix 'A' attached to this report, be used for the evaluation of school crossings."

RECOMMENDATION 3 - THAT 30 Kmph signs be posted around all schools in Burnaby.

SPEED LIMITS WITHIN SCHOOL ZONES

North Vancouver - Traffic Branch: 30 km per hour, with the tags attached to the triangular school signs.

Rigidly enforced and radar assistance.

New Westminster - Traffic Branch: 30 km per hour with tags attached to the triangular signs.

In some areas, dependent upon the local topography, fences, etc., just the triangular sign.

Silhouette area checked with radar ... good compliance by motorists.

Coquitlam -- Traffic Branch: All school signs (triangular) have 30 km tags affixed thereto. Rigidly enforced.

Nanaimo - Traffic Branch: Some school zones have the triangular signs with tags. Those with no tags are caution only and can not be enforced with reference to 30 km per hour. Regular city speed of 50 km. Have some local signs put up but they also are not enforceable. The police don't know why they have them.

Alderman Don Brown

The Traffic Safety Committee subsequently tabled Recommendation #3 of this report, "That 30 kmh signs be posted around all schools in Burnaby", to allow the Municipal Engineer an opportunity to report on those major streets around Burnaby Schools which would be adversely affected by the implementation of this recommendation.

Respectfully submitted,

Alderman G.D. Ast,
Chairman

Alderman D.N. Brown

Alderman F.G. Randall

TO: _____

DATE: _____

SUBJECT: _____

EVALUATION OF A SCHOOL CROSSING

The _____ at _____ corner _____ on _____ date/s _____ carried out a crossing survey
was from _____ to _____ during this period the following
observations were made:

• Number of vehicles and students

	Vehicles				Students
	N	S	E	W	
0800 - 0815 hrs. -					
0815 - 0830 hrs. -					
0830 - 0845 hrs. -					
0845 - 0900 hrs. -					
12:00 - 12:15					
12:15 - 12:30					
12:30 - 12:45					
12:45 - 1:00					
3:00 - 3:15					
3:15 - 3:30					
3:30 - 3:45					

- Speed of vehicles - _____
- Turning movement of vehicles - _____
- Drivers habits - _____
- Traffic violations - _____
- Road condition _____
- Accident history _____
- Students habits - _____
- Gaps in traffic flow - _____
- Pedestrian waiting periods - _____
- Type of street - _____
- Visibility - _____
- Signing - _____
- Location of X-walk from school - _____ blocks.
- Principal's reaction - _____

Comments - _____

APPENDIX 'A'

White copy to _____
Yellow copy to _____
Pink copy to _____

SCHOOL CROSSWALKS

Establishment of School crosswalks involves the installation of:

1. Crosswalk sign.
2. School advance sign (blue pentagon).
3. Painting of two lines on pavement.

The warrants below have been established for two lane roadways having a crossing width of 27 to 30 ft. and for normal road conditions.

WARRANTS

1. When the traffic density during the period when 85% of pupils cross is LESS THAN 300 VPH a crosswalk is NOT WARRANTED.
2. When the traffic density during the period when 85% of pupils cross is HIGHER THAN 500 VPH a crosswalk is WARRANTED.
3. When the traffic density during the period when 85% of pupils cross is between 300 VPH and 500 VPH then the crosswalk MAY BE WARRANTED and a more detailed study and assessment is indicated. Other factors governing the decision could be:- number and age of children, distance from existing traffic controls, accident history, sight distances, nature of parking and stopping, physical conditions prevailing, road width, possibility of rerouting pupils to a concentrated point, etc.

POLICIES

APPENDIX 'B'

- School crosswalks should only be established on through streets and main highways where warrants are satisfied.
- Crosswalks should not be established across a street controlled by stop signs or traffic signals.
- On multi-lane roads advance school signs to a crosswalk should have 'NO PASSING' tab.
- School and crosswalk signing on main streets should be removed where practical for summer periods.
- Where required, reduced speed zones (20 mph) on local streets and roads surrounding the school should be posted.
- On streets with reduced speed zones, crosswalks shall not be installed.
- The installation of signs and markings should be carried out in accordance with the Manual on Uniform Traffic Control Devices for Canada.
- Secondary Schools (Junior and Senior)
 - School patrols are highly desirable and should where possible and/or practical be provided; particularly so where traffic speeds are 40 mph or more.
- Elementary Schools (Primary)
 - School patrols at crosswalks should be mandatory.
 - Where supervision is not available then the crosswalk should be substituted with a school advance sign (blue pentagon) and installed at the beginning and the end of the school block.
- School patrols shall not be established at crosswalk locations not meeting these warrants.
- On multi-lane road the standard school crosswalk sign shall be mounted over the centre lanes as well as the curb.

WARRANTS & POLICIES

FOR

SCHOOL CROSSWALKS.

