

REPORT
Regular Council Meeting
1990 June 18

THE CORPORATION OF THE DISTRICT OF BURNABY

TRAFFIC AND TRANSPORTATION COMMITTEE
(TRAFFIC DIVISION)

HIS WORSHIP, THE MAYOR
AND ALDERMEN

REPORT OF THE TRAFFIC DIVISION

A meeting of the Traffic and Transportation Committee (Traffic Division) was held in the Council Chamber, Municipal Hall, 4949 Canada Way, Burnaby, B.C. on Tuesday, 1990 June 05 at which time a duly constituted quorum was not present.

A. WESTERN CANADA TRAFFIC ASSOCIATION CONFERENCE - ATTENDANCE

RECOMMENDATION:

1. THAT members of the Traffic and Transportation Committee (Traffic Division) be authorized to attend the 1990 Annual Western Canada Traffic Association Conference, 1990 October 09 to 12 in Burnaby, B.C.

R E P O R T

As Council is well aware, Burnaby is the host of the 1990 Annual Western Canada Traffic Association (W.C.T.A.) Conference to be held at the Burnaby Sheraton Inn, 1990 October 09 to 12 inclusive.

The W.C.T.A. promotes research and education on traffic and parking problems, standardization of traffic and parking regulations and devices, traffic accident prevention and public education on traffic safety and items of current concern.

Traditionally, a number of Committee members attend the annual W.C.T.A. Conference and this year, it is anticipated that the majority of Committee members will participate in the Conference, in one form or another.

Early Bird Registration fees, to be paid prior to August 15, are set at \$130.00 per delegate. It is anticipated that a maximum of seven (7) Traffic and Transportation Committee members will be categorized as paying delegates. Those Committee members who serve as hosts (Council members) or serve as the Conference Executive Committee are not required to pay registration fees (six Committee members in total).

B. PANDORA STREET AND WARWICK AVENUE

RECOMMENDATION:

1. THAT Council approve the installation of a two-way stop control on Pandora Street at Warwick Avenue.

R E P O R T

The Traffic Supervisor submitted the following report to the Traffic and Transportation Committee at its meeting held on 1990 June 05:

INTERNAL DISTRIBUTION:
AGENDA - 1990 JUNE 18
COPY - MUNICIPAL MANAGER
- DIRECTOR ENGINEERING
- DIRECTOR PLANNING & BUILDING INSPECTION
- O.I.C., R.C.M.P.

"In the fall of 1989 a complaint was received in the Engineering Department regarding an accident problem at the intersection of Pandora Street and Warwick Avenue.

Accident records at the time indicated that a warrant for any additional traffic control was not met. It was noted however, that an accident problem appeared to be developing relative to previous years (1987 and prior). It was stated at that time that the intersection would be monitored.

A site visit to the intersection did not indicate any apparent cause for the increase in accidents (vision obstructions, etc.). In fact, site distance is excellent. As well, two of the approach streets are posted 30kmh school/park zone. However, two more accidents in late 1989 and at least one in the current year lead us to conclude that stop sign installation is warranted.

Installation of a two-way stop is therefore proposed at this local intersection and, in keeping with the recent practice of stopping the more desirable 'through' street, Pandora Street will be required to stop in favour of Warwick Avenue."

C. LANE CLOSURE IN 7000 BLOCK HASTINGS STREET

RECOMMENDATIONS:

1. THAT the barricade in the lane serving the south side 7000 block Hastings Street be removed if the residents support a speed bump initiative.
2. THAT a copy of this report be sent to Barry Jones, MLA (Burnaby North), Constituency Office, #31-250 Willingdon Avenue, Burnaby, B.C., V5C 5E9.

R E P O R T

The Traffic Supervisor submitted the following report to the Traffic and Transportation Committee:

"Since the closure of the lane south of the 7000 Block Hastings Street there have been a number of occasions where the lane closure has been the subject of complaint. In response to those complaints and also a letter to the Committee from the area MLA, staff have again reviewed the situation with the Chairman of the Traffic and Transportation Committee.

As a result of this review a letter outlining a speed bump initiative for this lane has been forwarded to one of the resident households. The speed bump initiative which includes a plebiscite would substantially address the concerns and suggestions raised by Barry Jones, MLA, in his letter of 1990 April 24.

As yet staff have not received a response to this suggestion of a speed bump proposal. If a speed bump proposal is supported by the residents, staff recommend removal of the barricade concurrently with installation of the speed bumps."

D. CARLETON AVENUE ADJACENT WILLINGDON HEIGHTS PARK

RECOMMENDATION:

1. THAT Mr. Ken Humphrey of 4238 Charles Street, Burnaby, B.C., V5C 3K9, be sent a copy of this report.

R E P O R T

The Traffic Supervisor submitted the following report to the Traffic and Transportation Committee:

"In a recent letter to the Committee, Mr. Ken Humphrey of 4238 Charles Street expressed concern over the use of Carleton Avenue by shortcutting traffic and the speed at which this traffic is travelling. He has also questioned the location and positioning of the existing playground/30kmh warning signs. Staff have investigated these concerns.

Carleton Avenue adjacent Willingdon Heights Park, Douglas Street to William Street, is a 30kmh zone and is marked as such. A review of the signing indicates all required signing is in place and properly positioned. Signs are located at all possible entry points to the park. The signs Mr. Humphrey refers to as facing in the wrong direction are not necessarily intended for Carleton Street traffic but for westbound traffic on the side streets on approaches to the park.

Speeding and shortcutting are unfortunately problems in many areas reflecting congestion and the poor driving habits of many motorists. As this portion of Carleton Avenue is clearly and properly signed, enforcement of the 30kmh speed limit can readily be conducted. By copy of this report staff will request R.C.M.P. monitoring and enforcement of the 30kmh zones adjacent Willingdon Heights Park.

Staff have contacted Mr. Humphrey and discussed with him the intent of the signing and the action being taken regarding speeding."

E. SUSSEX AVENUE - RUMBLE STREET INTERSECTION

RECOMMENDATION:

1. THAT this report be received for information purposes.

R E P O R T

The Traffic Supervisor submitted the following report to the Traffic and Transportation Committee:

"BACKGROUND

In 1987, Sussex Avenue was reconstructed to collector standard under local improvement from Imperial Street to Rumble Street. The following year, construction resumed south to Marine Drive until its completion in the Autumn of 1988.

ACCIDENT HISTORY

Prior to road construction on Sussex Avenue, this intersection had a relatively minor accident history with 2 right angle collisions per year from 1986-1988. However, 1989 saw a significant increase, with 17 right angle collisions on record.

SIGNAL ANALYSIS - WARRANTS

Statistical data was collected by manual and automatic traffic count procedures during the week of February 12th. Data was subject to both 'Roads and Transportation Association of Canada', and 'Institute of Transportation Engineers' warrants. These warrants have not been satisfied. This can be attributed to low side street traffic volumes on Sussex Avenue. Apart from the accident record it would appear that the existing control is appropriate.

TRAFFIC CONTROL

Sussex Avenue is presently 2 way stop controlled, yielding right-of-way to Rumble Street. In 1990 April the existing 24" stop signs were converted to 30" and stop ahead signs were installed together with 20m parking restrictions on both inter-section approaches.

CONCLUSION

Due to the high accident rate, staff feel that driver awareness must be increased beyond the enhanced stop controls already in place. As a result, staff will be installing overhanging warning beacons showing a red flashing ball for Sussex Avenue and yellow for Rumble Street. Staff expect completing the installation in August-September of this year."

F. DELTA AVENUE AND LOUGHEED HIGHWAY

RECOMMENDATION:

1. THAT a copy of this report be sent to Ms. Lynn Ferguson, 7050 Halifax Street, Burnaby, B.C., V5A 1L8.

R E P O R T

The Traffic Supervisor submitted the following report to the Traffic and Transportation Committee:

"1.0 BACKGROUND

In November of 1989 the Traffic Division of the Engineering Department received a telephone call from Lynn Ferguson, formerly residing at #905, 5051 Lougheed Highway. Ms. Ferguson expressed concerns over lack of street lighting and the need for an improved walkway on Delta Avenue, north of Lougheed Highway.

Although staff were able to assist in improving the lighting conditions on Delta Avenue (we arranged for B.C. Hydro to install two additional lease lights) it was explained to Ms. Ferguson that a Local Improvement Program (LIP) would be necessary to bring the roadway and street lighting to a finished standard and that this program must be initiated by a property owner on Delta Avenue.

Ms. Ferguson did not feel support would be given for LIP as many residents were renting properties. She has now brought these and her other concerns to the attention of the Committee.

2.0 INVESTIGATION

In her letter to the Committee dated 1990 February 16, Ms. Ferguson listed a number of issues and included some suggested improvements.

The Engineering Department is aware of the difficulties pedestrians can experience on Delta Avenue and/or at the Lougheed Highway intersection. Staff have considered several improvements including those mentioned in Ms. Ferguson's letter. Unfortunately, because of jurisdictional limitations and topographical constraints the options pending completion of the Community Plan are limited.

2.1 Municipal Jurisdiction (Delta Avenue)

Improving Delta Avenue, north of Lougheed Highway, whether it be a local improvement or a Corporation initiated project, would be a Municipal responsibility. However with the pending closure of this portion of Delta Avenue (as proposed under Community Plan 9 - Figure 1), any long term major works would not be feasible.

It has been observed that an internal walkway and a 'beaten path' on the upper portion of the Delta Avenue hill provide safe and functional pedestrian routes to Anola Drive. From Anola Drive to Lougheed Highway however, there is no walkway.

Staff have reviewed the feasibility of several interim measures including stairs, handrails and a chipwalk path.

Each of these have safety drawbacks or are simply impossible to construct due to topography. Stairs for example, were proposed as a connector between Anola Drive and Loughheed Highway. All design concepts were rejected because a safe incline grade could not be provided.

In addition to the steep incline, the side slopes on Delta Avenue at Loughheed Highway are also restrictive. On the east side the ground line rises immediately back of pavement eliminating the possibility of constructing any improved walkway area off the travel portion of Delta Avenue. This factor is also important in considering a handrail. Although the rail would be helpful to pedestrians negotiating the hill, staff would have serious safety concerns for the pedestrian. As no off-road walkway area would be in existence, pedestrians would be required to walk on the road, outside of the rail.

2.2 Provincial Jurisdiction (Loughheed Highway)

Loughheed Highway including the intersection at Delta Avenue/Douglas Road and the traffic signal at this location are under the Ministry of Transportation & Highways (MOTH) jurisdiction. As with Delta Avenue, this section of the Loughheed Highway provides a hostile pedestrian environment. The bus stops to the east and west of Delta Avenue are the primary if not sole destinations of pedestrians. Although an improved walkway along the Loughheed Highway does not exist, there are paths to the stops which are safely off the roadway itself. Staff are unaware of any scheduled improvements to Loughheed Highway. However improvement of the Loughheed Highway is considered a high priority by Burnaby Council and the Ministry of Transportation & Highways is aware of this.

Ms. Ferguson has also suggested the upgrading of the traffic signal at Delta Avenue/Douglas Road-Loughheed Highway to include pedestrian signals on all four legs of the intersection. Currently the signal is equipped with pedestrian signals only at the painted crosswalk on the east leg of the intersection. Because of the traffic flow patterns at this intersection this is both functional and desirable. The northbound to westbound left turn volume is very high. MOTH does not wish to create a conflict between these vehicles and pedestrians on the west leg. Staff would concur with this approach for obvious safety reasons. For the bulk of the pedestrian traffic the crossings on the east leg is sufficient as this provides a controlled route to and from the bus stop on the south side of Loughheed Highway.

3.0 CONCLUSION

Staff share many of the concerns brought forward by Ms. Ferguson and we have considered or investigated several possibilities for improvements in and around this intersection both prior to and since receiving her correspondence. Unfortunately, our conclusion remains that grade difficulties are not readily overcome by any interim measures. The Planning & Building Inspection Department is aware of the need to consider Mrs. Ferguson's concerns in the context of any forthcoming Community Plan review.

Until the Community Plan is realized through the redevelopment of the lands north of Loughheed Highway, with a permanent resolution of the issues folded in, staff feel we can not significantly alter conditions to improve safety and adequacy to the pedestrian."

6. INTERSECTIONS ON 6TH STREET - 12TH AVENUE TO 18TH AVENUE

RECOMMENDATIONS:

1. THAT the existing pedestrian actuated signal at 6th Street and 16th Avenue be upgraded to include vehicle actuation.
2. THAT parking bans be implemented on 6th Street at 12th Avenue, 14th Avenue, 15th Avenue and 18th Avenue to improve sight distance for pedestrians.
3. THAT staff study the feasibility of implementing a pedestrian-actuated traffic signal on 6th Street between 12th and 14th Avenues as a further measure of ensuring pedestrian safety.
4. THAT Isabel McCurdy of #13 - 7330 6th Street, Burnaby, B.C., V3N 4S3 and Harvey Elder, President of the East Burnaby Ratepayers' Association, 8251 14th Avenue, Burnaby, B.C., V3W 2C1, be sent a copy of this report.

R E P O R T

The Traffic Supervisor submitted the following report to the Traffic and Transportation Committee:

"1.0 BACKGROUND/DISCUSSION

At its meeting of 1990 April 04, the Traffic & Transportation Committee (Traffic Division) received a report from Engineering regarding a number of requests for additional traffic control of 6th Street between 12th Avenue and 18th Avenue. The requested changes were:

1. Installation of marked crosswalks at 12th Avenue, 15th Avenue and 18th Avenue.
2. Installation of pedestrian actuated signals at 14th Avenue and at 12th Avenue.
3. Increased parking restrictions at the above intersections to improve sight distance.
4. Conversion of the existing pedestrian actuated signal at 16th Avenue to a vehicle actuated signal.

Additional data was needed to properly evaluate the requests as inter-related issues because of the close proximity of the intersections involved. Staff have completed the gathering of this information.

6th Street between 10th Avenue and Edmonds Street carries up to 25,000 vehicles per day. Until the larger issue of increasing demand relative to capacity on the arterial network within the Municipality and metropolitan area is resolved, traffic flows on this portion of 6th Street are likely to remain constant if not increase. The volume of traffic on occasion overburdens the existing lane configuration (1 travel lane in each direction) causing delay to pedestrians waiting for safe gaps to cross the 13.4m (44 ft) width of 6th Street. This observation generally applies to the entire length of 6th Street between 10th Avenue and Edmonds Street.

2.0 INVESTIGATION OF REQUESTED TRAFFIC CONTROL CHANGES

- 2.1 Marked Crosswalks at 12th Avenue, 15th Avenue and 18th Avenue

The above intersections were suggested by Harvey Elder of the East Burnaby Ratepayers' Association in correspondence to the Committee dated 1990 April 07, as requiring increased

Counts did not show a high number of pedestrians crossing at these locations. At times, however, pedestrians did experience a substantial 'wait' before a safe crossing gap in traffic occurred.

It should be noted that according to the Provincial Motor Vehicle Act, legal crosswalks exist at every street intersection whether marked or not. The rights and duties of pedestrians and drivers as specified in the Motor Vehicle Act are excerpted in Appendix A attached.

Accordingly a marked pedestrian crosswalk does not add to the rights of a pedestrian. A marked crosswalk may enhance driver perception of the possibility of a pedestrian crossing at that location but potentially at a cost of heightening motorist disregard at adjacent unmarked locations.

A marked crosswalk should also send a signal to the pedestrian - that it is 'safer' to cross at the marked crosswalk than elsewhere. This should be an appropriate message lest it lead to overconfidence by the pedestrian. We are not satisfied that this corridor meets the requirements for one or more marked crosswalks. The street intersections are all similar in layout and pedestrian loading, and we are concerned that safety may be compromised rather than enhanced by crosswalks in this case. For example, while research in this area is limited, a comprehensive study carried out in San Diego some years ago indicated pedestrians were twice as likely to be injured in marked rather than unmarked crosswalks.

At this stage we would recommend other measures, as discussed below, to enforce safety.

2.2 Parking Restrictions for Increased Sight Distance

If we were installing marked crosswalks we would be increasing and signing stopping restrictions to within 30m of the crosswalk. We would propose imposing similar restrictions along 6th Street but for the fact that our previous efforts to sign lesser restrictions have met with strident opposition. This is because parking is at a premium in this area because of its commercial nature we concur that 10m parking bans on the approach and departure at all locations should be instituted to ensure safe sight distance for pedestrians seeking to cross 6th Street. We recommend an extended restriction on the north side of 6th Street at 14th Avenue because of the grade. This ban should be contiguous to the existing no parking restriction in front of 7670 6th Street to maximize sightlines.

2.3 Installation of Pedestrian Actuated Traffic Signals at 12th Avenue and 14th Avenue

The installation of this type of signal control at 14th Avenue was suggested by Mr. Elder in his correspondence. A request for similar signalization at 12th Avenue was requested by Isabel McCurdy in correspondence to the Committee dated 1989 November 28 she cited school children crossing the road as a concern. The two locations failed to meet warrants for either pedestrian actuated or vehicular actuated signals.

We have contacted 12th Street School with regard to 12th Avenue at 6th Street being a main crossing point for school children. They informed us that 6th Street is the boundary for the school catchment area and there are only a few children who travel from the north side of 6th Street. We will be discussing the routing of this small number of children with them.

2.4 Upgrading of the Pedestrian Actuated Traffic Signal at 16th Avenue

The warrants for pedestrian actuated signals typically all include some measure of traffic volume weighed against pedestrian demand. The objective is to determine whether there are sufficient safe gaps for pedestrians to cross without undue delay. Thus, as traffic volumes increase the number of gaps diminishes and the justification for a signal increase. Similarly, as pedestrian crossing volumes increase so does aggregate delay and the justification for a signal to minimize delay. We believe that we can add to crossing gaps along 6th Street by upgrading of the existing pedestrian operated signal at 16th Avenue to vehicle actuation. This conversion is now warranted for traffic management at this intersection but the routine cycling introduced by vehicle actuation will also platoon vehicles travelling along 6th Street thus increasing safe crossing opportunities for pedestrians.

However, care must be taken with the implementation of full traffic signal actuation at this location. While 16th Avenue north/east of 6th Street is a major collector it functions as a lesser order street between Canada Way and 6th Street. If it is determined that the signal would attract extraneous traffic to this latter section of 16th Avenue then measures must be taken to minimize or eliminate this through traffic without impairing neighbourhood accessibility. As the signal upgrading cannot be implemented for some months this caveat can be fully addressed. There would be a future report to the Committee outlining alternative strategies and recommending a design for implementation.

3.0 CONCLUSIONS

Staff have reviewed pedestrian safety needs along the 6th Street corridor and conclude the following:

1. Additional pedestrian actuated signals are not warranted at any location.
2. Marked crosswalks at one or more locations would not necessarily enhance pedestrian safety and may in fact be counter-productive.
3. Additional intersection clearance should be provided at each intersection along the corridor to improve visibility. A minimum of 10m is proposed at each approach and departure. At 14th Avenue the clearance on the north-westbound approach of 6th Street would be further extended to take advantage of an existing zone.
4. Significant additional safe crossing gaps for pedestrians would be introduced by upgrading the existing pedestrian signal at 16th Avenue and 6th Street to a 'full' signal with vehicle actuation."

H. 3962 PENDER STREET

RECOMMENDATIONS:

1. THAT the Council approve the installation of a 30 minute time limited zone, on a trial basis, in front of 3962 Pender Street, and that this time limit be in effect from 9:00am to 9:00pm.
2. THAT Karen Kidd, 328 S. Gilmore Avenue, Burnaby, B.C., V5C 4R1 be sent a copy of this report.

R E P O R T

The Traffic Supervisor submitted the following report to the Traffic and Transportation Committee:

"In a letter to the Committee dated 1990 April 28, Mrs. Karen Kidd, Manager of Hemlock Apartments, 3962 Pender Street requested a restricted parking zone adjacent this address. Staff have been in contact with Mrs. Kidd to determine more specifically what was meant by a 'restricted' parking zone and for what purpose the zone was required.

Ms. Kidd advised us that due to long term parkers, tenants of this apartment are having difficulties locating pick-up or drop-off points on the street. She feels a time limited parking zone would resolve this problem. Staff generally do not establish this type of zone for only a portion of a block face, however after the needs of the tenants were explained, we believed this was an exceptional case.

Many of the tenants of this apartment block are elderly or somewhat incapacitated. They often require taxis, friends, relatives etc. to pick them up for their outings. A rear parking lot exists; however, it is not accessible to these residents as the building is not equipped with an elevator and several stairs must be negotiated.

As on-street parking is often unavailable, we would agree that by instituting a time limited parking zone we would eliminate the all day parking problem and create a zone where these residents could be served.

As this is somewhat of a unique installation we would recommend the signing be installed on a trial basis."

Respectfully submitted,

Alderman Jim Young
Chairman

Alderman Gary Begin
Member

Alderman Lee Rankin
Member

APPENDIX A - EXCERPT FROM MOTOR VEHICLE ACT

2000, 2001, 02,

"crosswalk" means

- (a) a portion of the roadway at an intersection or elsewhere distinctly indicated for pedestrian crossing by signs or by lines or other markings on the surface; or
- (b) the portion of a highway at an intersection that is included within the connection of the lateral lines of the sidewalks on the opposite sides of the highway, or within the extension of the lateral lines of the sidewalk on one side of the highway, measured from the curbs, or in the absence of curbs, from the edges of the roadway;

"vehicle" means a device having any number of wheels that is propelled by locomotion

Rights of way between vehicle and pedestrian

181. (1) Subject to section 182, the driver of a vehicle shall yield the right of way to a pedestrian where traffic control signals are not in place or not in operation 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 travelling, or is approaching so closely 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 where the guards or pupils are

- (a) provided under the *School Act*; or
- (b) authorized by the chief of police of the municipality as defined in section 32 (4).

RS1960-253-169; 1968-32-18; 1975-46-9.

Crossing at other than crosswalk

182. When a pedestrian is crossing a highway at a point not in a crosswalk, he shall yield the right of way to a vehicle.

RS1960-253-170.

Duty of driver

183. Notwithstanding sections 180, 181 and 182, a driver of a vehicle shall (a) exercise due care to avoid colliding with a pedestrian who is on the highway;

- (b) give warning by sounding the horn of the vehicle when necessary; and
- (c) observe proper precaution on observing a child or apparently confused or incapacitated person on the highway.

RS1960-253-171.

Walking by pedestrian

184. (1) Where there is a sidewalk that is reasonably passable on either or both sides of a highway, a pedestrian shall not walk on a roadway.

(2) Where there is no sidewalk, a pedestrian walking along or on a highway shall walk only on the extreme left side of the roadway or the shoulder of the highway, facing traffic approaching from the opposite direction.

(3) A person shall not be on a roadway to solicit a ride, employment or business from an occupant of a vehicle.

RS1960-253-172; *Amended 1985-78-14, not in force, amendment not included.*

APPENDIX A.