

REPORT
Regular Council Meeting
1993 January 04

CITY OF BURNABY

TRAFFIC AND TRANSPORTATION COMMITTEE
(TRANSPORTATION AND TRANSIT DIVISION)

HIS WORSHIP, THE MAYOR
AND COUNCILLORS

Re: 16th Avenue Traffic Analysis

RECOMMENDATION:

1. THAT Council receive this report for information, and that a copy be sent to Ms. Julianna Craig at 7864 Sixteenth Avenue, Burnaby, B.C., V3N 1R1.

REPORT

The Traffic and Transportation Committee (Transportation and Transit Division), at its meeting held on 1992 December 16, adopted the attached staff report regarding traffic problems and volumes on Sixteenth Avenue between Sixth Street and Canada Way as well as the accident history at the intersections of Sixteenth Avenue/Sixth Street and Sixteenth Avenue/Canada Way.

Respectfully submitted,

Members:

Mr. Ernest Neumann
Mr. Peter Miller
Mr. Len Werden

Councillor J. Young
Chairman

Councillor D. Evans
Member

Councillor D. Lawson
Member

Councillor C. Redman
Member

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AGENDA - 1993 JANUARY 04

COPY - CITY MANAGER

- DIRECTOR ENGINEERING

- DIRECTOR PLANNING & BUILDING

TO: CHAIRMAN & MEMBERS 1992 DECEMBER 9
TRAFFIC & TRANSPORTATION COMMITTEE
FROM: ACTING DIRECTOR PLANNING & BUILDING OUR FILE: 16TH AVE
SUBJECT: 16TH AVENUE TRAFFIC ANALYSIS
PURPOSE: To report on traffic volumes and patterns on Sixteenth Avenue, between Sixth Street and Canada Way.

RECOMMENDATION:

1. THAT the Traffic & Transportation Committee receive this report for information, and that a copy be sent to Ms. Julianna Craig at 7864 Sixteenth Avenue, Burnaby, B.C, V3N 1R1.

R E P O R T

1.0 BACKGROUND

At the 1992 October 20 meeting of the Traffic and Transportation Committee, Ms. Julianna Craig appeared as a delegation expressing concern regarding the increase in commuter traffic in the 7700 and 7800 blocks of Sixteenth Avenue since the installation of a full traffic signal at Sixth Street/Sixteenth Avenue. Ms. Craig requested that the City take action to deter commuter traffic from using this section of Sixteenth Avenue. Another concern expressed by Ms. Craig in a letter to the Committee prior to her appearance as a delegation, was the increased number of accidents at the Canada Way/Sixteenth Avenue intersection since the signal installation at Sixth Street.

This report documents traffic patterns and volumes on Sixteenth Avenue, as well as the accident history at the intersections of Sixteenth Avenue/Sixth Street and Sixteenth Avenue/Canada Way, for the information of the Committee.

2.0 TRAFFIC VOLUMES

Sixteenth Avenue, east of Sixth Street, is a major collector street carrying high volumes of commuter traffic between Canada Way and areas to the east. During the AM Peak, the majority of traffic headed westbound on 16th Avenue makes a right turn at the 16th Avenue/6th Street intersection, and travels northbound along Sixth Street to Edmonds, and eventually to Canada Way or Kingsway. During the PM Peak, traffic headed towards the east travels this same route, but in the opposite direction.

In September 1991, the intersection of Sixteenth Avenue/Sixth Street was converted from a pedestrian controlled signal to a full traffic signal. The following documents the affect of this change on traffic control on Sixteenth Avenue.

2.1 Daily Traffic Volumes

Average daily traffic volumes in the 7700 block of Sixteenth Avenue, west of Sixth Street, before and after the installation of the full traffic signal at Sixth Street, show that there has been an increase of approximately 630 vehicles per day, from 1140 vehicles per day to 1770 vehicles per day. Despite the fact that traffic on this section of Sixteenth Avenue is below the typical maximum volume of 3000 vehicles per day expected on local streets (RTAC Manual of Geometric Design Standards for Canadian Roads), it is recognised that there has been a 55% increase in the traffic volume since the installation of the signal at Sixth Street.

2.2 Peak Hour Traffic Volumes

Traffic counts were conducted at the intersection of Sixteenth Avenue/Sixth Street before and after the installation of the signal. Table 1 shows the change in total volume of traffic on both the east and west legs of the intersection since the signalization.

Table 1 Peak Hour Traffic Volumes at the Sixteenth Avenue/Sixth Street Intersection

YEAR OF COUNT		16TH AVE EAST OF 6TH STREET		16TH AVE WEST OF 6TH STREET	
		2-way traffic volume	increase since signal installation	2-way traffic volume	increase since signal installation
1988	AM	465	-	45	-
	PM	525	-	50	-
1991	AM	790	325	190	145
	PM	910	385	185	135
1992	AM	905	440	215	170
	PM	890	365	285	235

The volume of traffic on Sixteenth Avenue east of Sixth Street has increased by approximately 40% since 1988; however, traffic volumes on Sixteenth Avenue west of Sixth Street have increased by approximately 150 to 200 vehicles since the installation of the signal. Despite this tripling of volumes during the peak hour, it must be noted that the overall volume of traffic on Sixteenth Avenue west of the signal remains relatively low, at less than 250 vehicles per hour (average of less than 4 vehicles per minute).

The installation of the signal has provided capacity for through movements along Sixteenth Avenue at the Sixth Street intersection. Traffic which would previously have accessed Canada Way via Edmonds is now avoiding turn movements at this congested intersection by continuing straight on Sixteenth Avenue.

3.0 PROPORTION OF NON-LOCAL TRAFFIC

As well as being concerned about the increase in traffic volumes on Sixteenth Avenue, residents are worried by the speed of the traffic. There is a perception that the traffic is short-cutting, and hence is travelling at unsafe speeds.

To determine the proportion of through traffic, staff conducted a licence plate trace on all vehicles entering and leaving the portion of Sixteenth Avenue between Sixth Street and Canada Way. Matching licence plates observed at both intersections during the AM and PM Peak periods gives an indication of the percentage of through traffic. From the results of the December 1992 survey, approximately 87% of all traffic on Sixteenth Avenue is non-local. Therefore, only 13% of traffic is local.

4.0 ACCIDENT HISTORY

The City of Burnaby Engineering Department keeps records of all accidents occurring on its streets and intersections. Staff accessed this information for the intersections of Sixteenth Avenue with Sixth Street and Canada Way, to compare the accident statistics there before and after the installation of the signal at Sixth Street. The accident records are summarised in Table 2.

Table 2 Accidents at Sixteenth Ave/Canada Way and Sixteenth Ave/Sixth St.

	Number of Accidents at Intersection	
	Sixteenth Avenue / Sixth Street	Sixteenth Avenue / Canada Way
Before Signalization Jan. - Sept. 1991	12	4
After Signalization Jan. - Sept. 1992	6	18

As is evident from the statistics, the installation of a signal at Sixteenth Avenue/Sixth Street has reduced the number of accidents at that intersection from twelve to six. However, there has been an increase in the number of accidents at the Canada Way end of Sixteenth Avenue, likely due to the increased volume of non-local traffic using this intersection without signal control.

5.0 SUMMARY AND CONCLUSION

The major problem areas in the 7700 and 7800 blocks of Sixteenth Avenue are as follows:

1. Traffic Volume

Since the installation of the signal at Sixteenth Avenue/Sixth Street, traffic volumes on the 7700 and 7800 blocks of Sixteenth Avenue have increased significantly, but almost all of this increase is peak period and non local. A licence plate survey of vehicles entering and leaving this block of Sixteenth Avenue showed that only 13% of the traffic using Sixteenth Avenue in this location, is local.

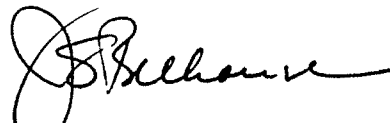
2. Traffic Speed

Residents of this section of Sixteenth Avenue perceive that non-local traffic is speeding through their neighbourhood. Staff has not checked to see if speeds are in excess of the speed limit, but plan to look at this issue.

3. Accidents

There has been a decrease in the number of accidents at the Sixteenth Avenue/Sixth Street intersection since the installation of the signal, likely due to there being an increase in the capacity for minor leg movements. The frequency of accidents has increased at the Sixteenth Avenue/Canada Way intersection, because of the increase in traffic to and from Sixteenth Avenue since the installation of the signal at Sixth Street.

Staff recognise that there has been a significant effect on traffic patterns on the 7700 and 7800 blocks of Sixteenth Avenue since the installation of the signal at Sixth Street. A report addressing the issues arising from the traffic analysis will be brought to the Committee in early 1993.



D.G. Stenson, Acting Director
PLANNING & BUILDING

DAB/dab
cc: Director Engineering