

CITY OF BURNABY
TRAFFIC SAFETY COMMITTEE

A

*HIS WORSHIP, THE MAYOR
AND COUNCILLORS*

SUBJECT: CLIFF AVENUE AT KITCHENER STREET - TRAFFIC CONTROL

RECOMMENDATION:

1. **THAT** Council forward a copy of the attached report to Mathew Foley, 6990 Kitchener Street, Burnaby, B.C., V5B 2J9.

REPORT

The Traffic Safety Committee, at its meeting held on 2003 October 07, received and adopted the *attached* report addressing concerns relating to speed and stop violations at the intersection of Cliff Street and Kitchener Avenue.

Respectfully submitted,

Councillor D. Evans
Chair

Councillor N. Volkow
Vice Chair

Councillor L. Rankin
Member

COPY: CITY MANAGER
DIRECTOR ENGINEERING
RCMP, Traffic Division

City of Burnaby

INTER-OFFICE COMMUNICATION

TO: TRAFFIC SAFETY COMMITTEE **DATE:** 2003 09 29
FROM: ASST. DIRECTOR ENGINEERING,
TRAFFIC & ENGINEERING SYSTEMS **FILE:** 38000-20
SUBJECT: CLIFF AVENUE AT KITCHENER STREET - TRAFFIC CONTROL
PURPOSE: To address concerns relating to speed and stop violations at the intersection of
Cliff Street and Kitchener Avenue.

RECOMMENDATION:

1. **THAT** Mathew Foley, 6990 Kitchener Street, Burnaby BC V5B 2J9 receive a copy of this report.

R E P O R T

1.0 INTRODUCTION

Appearing on the 2003 September 2 agenda of the Traffic Safety Committee was E-mail correspondence from Mr. Mathew Foley of 6990 Kitchener Street. Mr. Foley directed his subsequent Email correspondence to the Mayor's Office and it appears elsewhere on this agenda. Mr. Foley's concerns primarily relate to pedestrian safety at the intersection of Cliff Avenue and Kitchener Street. He cites traffic speed on these streets and non-compliance at the intersection stop controls as the source of the concern.

2.0 BACKGROUND

The intersection of Cliff Avenue and Kitchener Street is currently controlled by a 4-way stop. This control has been in place since May of 1993, and was installed to reflect the parity in traffic volumes (see below) and proximity to Lochdale School. Previously there was a 2-way stop giving right-of-way to Kitchener over Cliff which reflected the designation of Kitchener as a local collector. The 2-way stops on Cliff were installed in 1975 and replaced previously existing yield controls. Our traffic accident data base does not indicate a single reported accident occurring at this intersection since the conversion to 4-way stop controls.

3.0 REVIEW

Traffic speed and volume collection equipment was set up on all 4 legs of this intersection. Volume figures do not indicate any excess traffic utilizing these roadways and the numbers are lower than those expected on similar roadways. Volume on Cliff Avenue, which is classified as a residential roadway, are in the range of 700 vehicles per day. Kitchener Street, classified as a local collector, is carrying a little over 800 vehicles per day.

The data below shows the mean speed as well as the 85th% speed (85% of traffic is travelling at or less than the 85th percentile).

TABLE 1: Intersection Approach Speeds

Street	Direction	Mean Speed (km/h)	85th Percentile (km/h)
Kitchener, west of Cliff	EB	44	55
Kitchener, east of Cliff	WB	40	53
Cliff, south of Kitchener	NB	43	54
Cliff*, north of Kitchener	SB	43	53

*school zone not in effect at time of survey

These figures are for the approach directions to the intersection. The speed equipment was set up in mid-block locations so as to obtain data not affected by the stop signs. The numbers indicate a consistent speed pattern and acceptable compliance with the 50 km/h urban standard.

4.0 DISCUSSION OF OPTIONS

The Cliff Avenue - Kitchener Street intersection, shown in Figure 1 attached, is controlled by a 4-way stop. The stop signs are appropriately placed and visible to traffic approaching on all four legs. This form of traffic control has been effective in controlling intersection with similar approach traffic volumes. From an accident reduction perspective it is also effective in right-of way assignment and reducing right angle collisions. This form of control typically has a positive effect on traffic speed as the average motorists will abide by the stop requirements.

Unfortunately, some motorists who are familiar with an intersection will take advantage of this control by not coming to a full stop (a "California stop"). The 4-way stops typically installed at intersections with higher traffic volumes do not have the same level of non-compliance. In lower volume locations, a few motorists may even run the stop as they are habituated to not expecting conflicting traffic or, if encountering traffic, they assume that the other vehicle would stop. During "rush" hour for this intersection an average of only two vehicles per minute enter the intersection. The reasonably good sightlines at this intersection add comfort to this careless driver. We are hearing of California stops as an issue on a more regular basis and note a report on another location elsewhere on this agenda.

The correspondent has suggested speed humps and roundabouts as measures to address his concern. As Kitchener Street is classified as a collector roadway, it is ineligible for installation of speed humps. Cliff, however would be eligible and an LIP Speed Hump Program on the north leg would address child pedestrian safety adjacent Lochdale Community School. We note however that speed humps would not necessarily address the California stop issue.

The installation of a roundabout has also been suggested. While this measure may address stop sign non-compliance it requires more driver attention as a diversionary manoeuvre is required and the motorist is required to yield to vehicles "in" the roundabout. Accordingly, roundabouts are less pedestrian friendly than other forms of intersection control. Crosswalks in roundabouts are typically placed well away from the intersection to address this crossing concern.

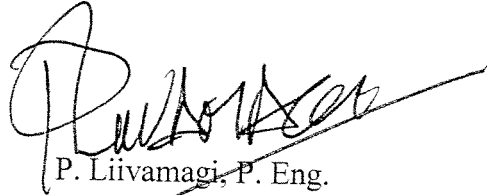
5.0 CONCLUSION

The Cliff/Kitchener intersection is currently controlled by a 4-way stop. While this form of control has been effective in assigning right of way, providing ample pedestrian crossing opportunities and controlling accidents and speed, at times it is abused. Our review of the data and limited observation suggests that this is a relatively innocuous intersection notwithstanding the California stops..

Engineering Department

Re: Cliff Ave at Kitchener St - Traffic Control

Cliff Avenue is eligible for possible speed hump installation through LIP but we would be extremely cautious about replacing the existing stop with a roundabout. The crosswalks at this 4-way intersection stop are presently well defined and provide better protection for pedestrians than a roundabout. Our experience is that driver compliance with school related safety facilities is highest when children are present and this intersection may benefit from the presence of school patrols.



P. Liivamagi, P. Eng.

ASST. DIRECTOR ENGINEERING,
TRAFFIC & ENG. SYSTEMS

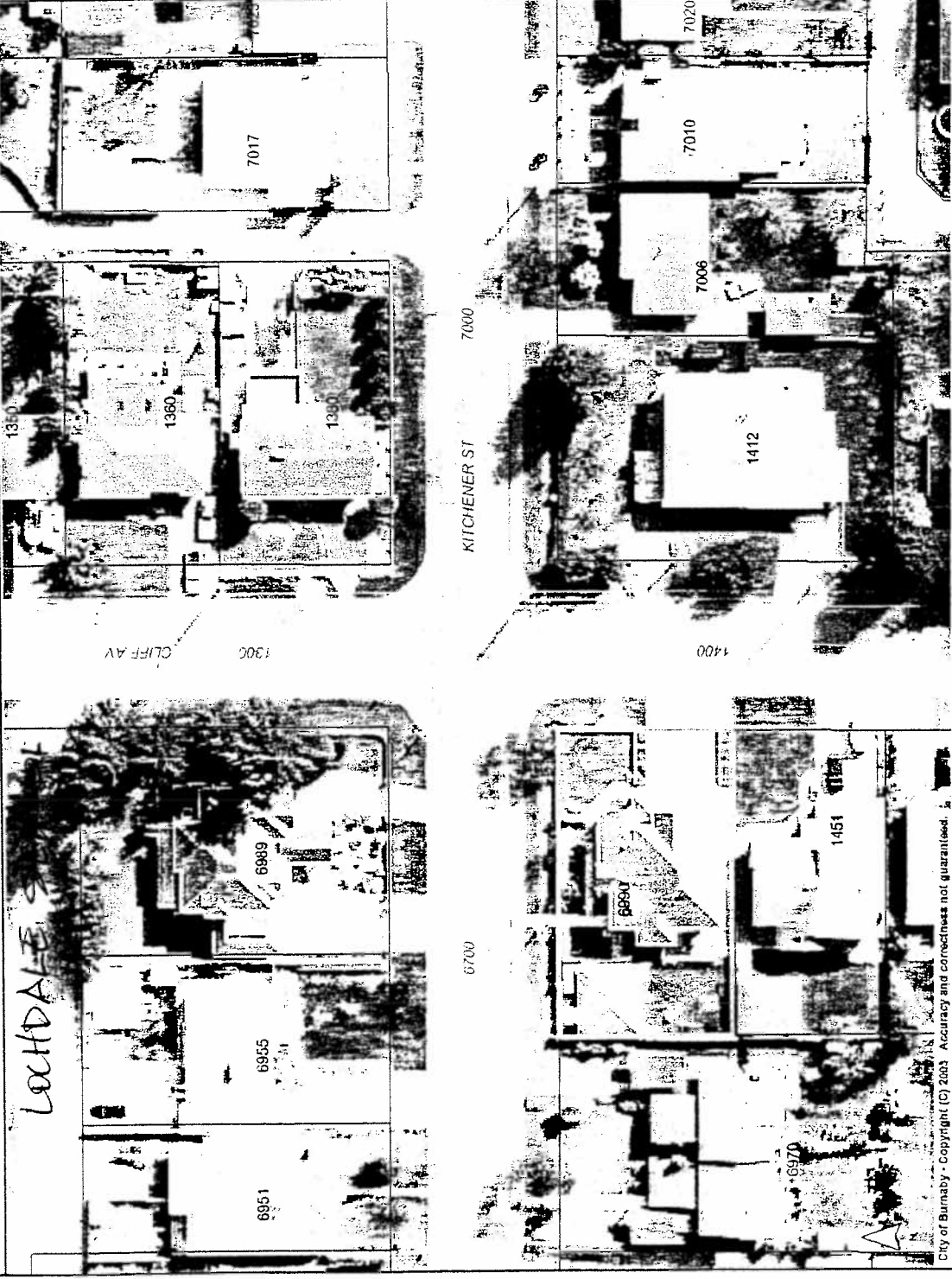
EJ/PL:

Attach.

cc: City Manager

Cliff Ave and Kitchener St Intersection

September 29, 2003



- Selected Facilities
- Speed Humps
- Strata Units
- Places
- 1 GOLF
- P POLICE
- F FIRE
- UTILITY
- ELDERLY
- SCHOOL
- CRIC
- LIBRARY
- HOSPITAL
- MALL
- PARKS and RECREATION
- Skytrain Stations
- Skytrain Lines
- Addresses
- Lot
- Street Intersection
- Special Humps
- Speed Humps
- Handred Blocks
- Roads
- Local
- Collector
- Arterial
- Freeway
- Hydrology
- Colour 2492
- Parks
- PARKLAND TO BE ACQUIRED
- Other
- Boundary