

PUBLIC WORKS AND TRANSPORTATION
TRAFFIC & TRANSPORTATION SERVICES

M E M O R A N D U M

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SUBJECT: Armview Short-Cutting - Results of Trial One: Armview/Pryor/Jubilee

A trial installation under the Neighbourhood Short-Cutting Policy of a traffic signal light at the intersection of Jubilee Road and Connaught Avenue was started on August 16, 1999. The timing of the signal phases was intentionally weighted to reduce the volume of short-cutting motorists using the Armview-Pryor-Jubilee corridor. Monitoring of the effects of the signal as required by the Neighbourhood Short-Cutting Policy was done. An interim report was presented to Council on October 15, 1999. That report included a description of additional measures staff was to take in further adjusting traffic volumes. Council allowed the adjustments to proceed but requested another report after another six weeks of trial. The requested report was presented December 7, 1999. Much of that report is repeated in this report.

The Neighbourhood Short-Cutting Policy was adopted by HRM Council in April 1999 as an amendment to the Traffic Calming Policy approved in July 1996. Under the Policy a study, with a committee of residents, of the longstanding short-cutting matter on Armview Avenue - Pryor Street - Jubilee Road was commenced in April 1998. The resident's committee recommended prohibiting left and right turns into, and left turns out of, Armview, Prince Arthur, and Bloomingdale at Quinpool Road. A public open house was held in November 1998 to receive opinions on the proposal. A mail-out, mail-back vote of residents on the project streets was held to determine the opinions of those most affected. The vote was more than 80% in favour. There was, however, significant opposition expressed by persons who have been using the route as a short-cut. There was also concern by residents of the area near Sir Charles Tupper School. Those nearby residents feared short-cutting motorists would change their route to include Beech Street and/or Norwood Street and create or add to an existing short-cutting problem on nearby residential streets.

In light of the opposition expressed HRM staff were concerned that complete prohibition of entry by motorists to Armview, Prince Arthur, and Bloomingdale from Quinpool was too extreme a measure and a compromise concept was sought. The suggestion was made that traffic signal lights could be installed at the intersection of Connaught Avenue and Jubilee Road, with the

signal timing set to greatly favour travel via Connaught while at the same time still permit any driver to use Armview if he or she desired. As a trial, such a signal was installed and switched on August 16, 1999.

Following the procedures in the Neighbourhood Short-Cutting Policy traffic volume data on the project streets and nearby streets was recorded before and after the new traffic signals were turned on. The intent was to see what the consequences were of the signal's operation and determine if any diversion of short-cutting traffic to other nearby residential streets occurred.

An important aspect of the Neighbourhood Short-Cutting Policy is a requirement that trips diverted to other residential streets not exceed 400 vehicles per day or less. (There is a sliding maximum scale which depends on the pre-trial traffic volumes, with 150 vehicles per day being acceptable on any very quiet street, going up to 400 vehicles per day on a street with pre-trial volumes of 2,000 vehicles per day and declining to an increase of 0 (zero) vehicles per day on residential streets with pre-trial volumes of more than 3,000 vehicles per day.)

It was necessary that the pre-trial traffic counts were taken in July and August and most of the post-trial traffic counts were taken in September. This causes some ambiguity in the results because in July and August public schools are closed and universities' traffic is greatly reduced. Nonetheless Staff felt the results could be interpreted properly, and the very early counts taken before school started would give valuable insights. Several daily counts are taken at each reporting location and averaged to get a reported volume. Occasionally a counter malfunction required a count to be rejected.

At the time of staff's first evaluation of the results of the trial to that date, a problem of through traffic diverting to Norwood Street was seen. As reported to Council in the October 15, 1999 Interim Report, a partial closure of the intersection of Bloomingdale Terrace at Quinpool was proposed. The partial closure was installed before noon on Wednesday, October 27.

Following is a table showing traffic counts and a discussion of the results seen to date on several significant streets:

Trial of Preferential Traffic Signal Timing - 1999
Weekday 24 Hour Traffic Count Results

| location (street block) | traffic volume before test began | traffic volume (during first test period) <during second test period> | change in daily traffic volume (during first test period) <during second test period> | allowable increase under Short- Cutting Policy | OK? |
|---|-------------------------------------|--|---|---|----------------|
| Armview between Quinpool and Tupper Grove | 5,680 | (3,250) <n.a.> | (- 2,430) <n.a.> | (n.a.) | yes |
| Bloomingtondale between Jubilee and Norwood | 820 | (600) <470> | (- 220) <- 350> | 250 | (yes) <yes> |
| Bloomingtondale between Norwood and Quinpool | 950 | (840) <330> | (- 110) <- 620> | 375 | (yes) <yes> |
| Beech between Pepperell and Quinpool | 1,400 | (1,420) <1,580> | (+ 20) <+ 180> | 350 | (yes) <yes> |
| Norwood between Cambridge and Oxford | 2,130 | (2,440) <2,050> | (+ 310) <- 80> | 400 | (yes) <yes> |
| Norwood between Connaught and Rosebank | 1,410 | (1,900) <1,433> | (+ 490) <+ 23> | 350 | (no) <yes> |
| Norwood between Bloomingtondale and Connaught | 325 | (925) <510> | (+ 600) <+ 186> | 175 | (no) <yes> |
| Pepperell between Cambridge and Oxford | 1,040 | (1,100) <n.a.> | (+ 60) <n.a.> | 300 | (yes) <yes> |
| Rosebank between Quinpool and Norwood | n.a. | (680) <585> | <- 95> | 230 | <yes> |

Armview between Quinpool and Tupper Grove Before the signals were turned on the weekday daily traffic volume on this street was about 5,700 vehicles per day. After the signal was turned on and drivers had a chance to learn to take a different route, volumes declined to about 3,250 vehicles per day. Therefore, the trial is successful in reducing Armview Avenue traffic.

Bloomingtondale between Jubilee & Norwood Traffic on this block fell from about 800 vehicles per day to about 470 vehicles per day.

Bloomingtondale between Norwood and Quinpool Traffic in this block of Bloomingtondale fell from 950 to 330 vehicles per day after the signals were turned on and turns from Quinpool Road restricted.

Beech Street between Pepperell and Quinpool Traffic in this block of Beech appears virtually unchanged between before the test (late July) and after the test (mid-September), and is up only slightly after the turn restrictions were put in place on Bloomingdale. Some Beech Street traffic seen after July is school drop-off and pick-up traffic which is legitimate and not due to the short-cutting measures.

Norwood between Cambridge and Oxford This block of Norwood shows a decrease of about 80 vehicles per day with the new signals operating and turns to Bloomingdale restricted.

Norwood between Connaught and Rosebank This block of Rosebank has an allowable increase of 350 vehicles per day. After turn restrictions were installed on Bloomingdale, the measured increase is about 20 vehicles per day, which is acceptable.

Norwood between Bloomingdale & Connaught This block of Norwood has an allowable increase of 175 vehicles per day. Before the signals were installed, the volume was 300 to 350 vehicles per day, after the signals went in 850 to 950. Strangely, an equivalent increase in volumes on Bloomingdale was not found. Based on the fact that all three Norwood count locations show increases it appears the before-trial Bloomingdale counts might have been high, masking a real increase which occurred. After installing turn restrictions at the intersection of Bloomingdale and Quinpool the volume has been reduced to about 510 vehicles per day. This is an increase on Norwood of about 185 vehicles per day. With the possibility of a high initial count on Bloomingdale, school and university traffic after the summer months, and a minor excess of only 10 vehicles per day, this volume is satisfactory.

Pepperell between Cambridge and Oxford Before the turn restrictions were installed on Bloomingdale this block showed an increase of 60 vehicles per day, well within policy limits (300 vehicles per day). Because the "before" count is from July, part of the increase is likely school traffic. Traffic was also counted after the new turn restrictions were put in place on Bloomingdale but the counter malfunctioned. However, if all of the increase seen on Beech (160 additional vehicles per day) were to go to Pepperell, the new volume would still be within the allowable limits.

Summary: The results of this analysis show Bloomingdale, Beech, Rosebank, Norwood, and Pepperell are all OK with the new lights turned on and the turn restrictions on Bloomingdale in place.

The next steps in the Neighbourhood Short-Cutting Policy process are laid out in parts 6.7 and 6.8 of the Policy.

"6.7 PERMANENT INSTALLATION VOTE OF RESIDENTS AND BUSINESSES ON THE PROBLEM STREET(S)

Residents and businesses within the same area as the first vote for trial installation will be given the opportunity to vote on making permanent the short-cutting reduction plan by way of a mail-out/mail-back ballot. If the minimum return rate of 50 percent is not achieved on the first ballot, a second ballot will be sent out after two weeks. Of the returned ballots, simple majority support is required for the plan to proceed to Regional Council for consideration of permanent implementation. The purpose of the vote is to give the people living on the project street itself a say in anything that is supposed to benefit them but with which they disagree. It also protects residents of the project street from an active minority on the street which does not adequately represent the views of all residents of the street."

The voting area is defined in section 6.5 of the Policy as: households and businesses on the project street and on adjacent local streets up to 60 metres from the project street. Therefore, the ballot was circulated (one per household or place of business) to 170 addresses on Armview Avenue, Prince Arthur Street, Bloomingdale Terrace, Pryor Street, Jubilee Road (from the North West Arm to Connaught Avenue), Tupper Grove and Armview Terrace, and to residences on local streets with lots within 60 metres (200 feet) of those streets (measured along the front property lines). This is the same area as covered by the earlier "Trial Installation Vote of Residents and Businesses on the Problem Street(s)."

The question on the ballots was as follows:

"The question HRM is asking is: "Is the benefit of reduced through traffic from the installed trial measures worth the trouble and inconvenience they will cause you and your neighbours if the measures are made permanent?"

_____ *YES, I request the measures be made permanent.*

_____ *NO, I am opposed to the measures being made permanent."*

The ballots were mailed using regular Canada Post letter mail on December 16, 1999. Ballots received at the offices of the Traffic and Transportation Section on Dutch Village Road as of 10:00 a.m. Monday, January 10, 2000, were opened by Traffic and Transportation staff in the presence of a member of the Municipal Clerk's staff and the results counted.

There were 170 ballots issued of which 123 were returned, which is 72% of the total. This exceeds the required 50% return rate. Therefore, a valid vote has been obtained.

Of the 123 ballots, there were 90 (73%) in favour of proceeding, 30 (24%) opposed, and 3 (2%) ballots not countable because of conditions marked on the ballot (two ballots) and the ballot not marked (one ballot).

There was therefore a majority of residents on the project streets in favour of proceeding to make the trial installation permanent.