REGIONAL MUNICIPALITY OF OTTAWA CARLETON — REPORT
MUNICIPALITÉ RÉGIONALE D'OTTAWA CARLETON — RAPPORT

Our File/N/Réf. **50** 09-98-0008
Your File/V/Réf.

DATE 13 February 1998

TO/DEST. Co-ordinator Transportation Committee

FROM/EXP. Director Mobility Services and Corporate Fleet Services
Environment and Transportation Department

SUBJECT/OBJET **CENTRETOWN TRAFFIC CALMING PLAN AND KENT STREET TRAFFIC CALMING CONCEPT PLAN**

DEPARTMENTAL RECOMMENDATIONS

That the Transportation Committee recommend Council approve:

1. **that the report prepared by J. P. Braaksma and Associates, entitled *Centretown Traffic Calming Plan and Kent Street Traffic Calming Concept Plan (*Document 1 on file with the Regional Clerk) be received;**

2. **that, subject to technical evaluation, detailed design, and the identification of capital and operating funds, the *Preferred Kent Street Traffic Calming Concept Plan* as illustrated in Annex A and Figure 5.2 of the consultant's report be approved;**

3. **that, subject to technical evaluation, detailed design, and the identification of capital and operating funds, the *Preferred Traffic Calming Plan* as illustrated in Annex B and Figure 6.1 of the consultant's report be used as a basis for identifying traffic calming measures to be implemented in the Centretown neighbourhood, specifically on streets as detailed in Annexes B and C;**

4. **that additional peak period curb parking on Bank and Elgin Streets *not* be approved;**

5. **that the establishment of implementation priorities and assessment criteria include, where appropriate, input from area residents and local business representatives;**

6. that consideration of any vertical measures on Regional roads be deferred pending evaluation of the proposed measures on Kirkwood Avenue.

BACKGROUND

The City of Ottawa, in its 1994 budget deliberations, allocated $80,000 for a traffic calming study within the Centretown area. This study, initiated as part of the Centretown revitalization effort stemming from the work of the Centretown Revitalization Group in the early 1990s, was intended to serve as the basis for implementing policies of the City of Ottawa Official Plan dealing with traffic calming, and policies of the Centretown Secondary Policy Plan that provide direction for reducing the impacts of through traffic on the residential liveability of the neighbourhood.

In April 1994, the Ottawa Local Architects Network held an Urban Design Charrette to identify ways to revitalize Kent Street between the Queensway and Gloucester Street.

After the Charrette was completed, the Transportation Committee directed staff to:

> "Review the Kent Street Urban Design Charrette in order to create a street of regional significance (in an urban context) leading to Parliament Hill; and that Planning and Transportation Departments report back on how they would proceed with this project, i.e., consultant vs. staff, 1994 or 1995 budget, before the end of this term of Council."

Subsequently, Kent Street was added to the Centretown Traffic Calming Plan as a special study area, with a consultant budget allocated by the RMOC of $40,000.

The final Terms of Reference for the study were adopted by the City of Ottawa and the Region in December 1994, and the consultant began the study in 1995.

A key component of the study was community involvement which was provided through the establishment of a Steering Committee/Working Group. This group comprised community representatives, the City and Regional Councillors for the area, and City and Regional staff. Ongoing feedback and direction to the consultant team throughout the study process was provided by the Steering Committee/Working Group.

The final report entitled Centretown Traffic Calming Plan and Kent Street Traffic Calming Concept Plan (Document 1*) presents the findings and the recommendations of the consultant with respect to the task assigned. The report was circulated to the public and to technical agencies for comments which were considered in the formulation of the recommendations set out in this submission.

DISCUSSION

Recommendation No. 1

The Centretown Traffic Calming Plan (CTCP) provides a basis to implement traffic calming policies of the Ottawa Official Plan and the Region's new Official Plan and Transportation Master Plan as they relate to Centretown and to implement policies of Ottawa's Centretown Secondary Policy plan dealing with improving the residential liveability of the neighbourhood by addressing concerns related to through traffic. Specifically, the CTCP is viewed as a response from the community to the traffic concerns within the Centretown neighbourhood and the community's solutions as guided by the consultant retained to prepare the plan.

During the study process, various philosophies concerning the function of Regional roads and City streets within the Centretown neighbourhood were put forward by the consultant. Some of these philosophies have resulted in recommendations by the consultant that require a change in Regional and/or City policy and will therefore require further investigation. Staff's response to the consultant's specific recommendations is set out in Annex D.

Many roadway modifications identified within the Preferred Traffic Calming Plan (contained within the CTCP and detailed in Annexes B and C), are considered appropriate and reasonable. In fact, some have been implemented in conjunction with other road-works recently undertaken in the area.

Other works suggested that involve more significant modifications to City streets and Regional roads require more detailed analysis on their feasibility and of potential impacts on adjacent roadways. The CTCP acknowledges this and in the "Foreword" states that the Preferred Traffic Calming Plan is conceptual and may be modified as required to address technical and operational concerns. Technical considerations will be addressed at the design stage for each of the proposed measures.

It is further noted that RMOC staff, OC Transpo staff and emergency services have expressed concerns or objections to some modifications that have been proposed for Regional roads. Regional staff do not have concerns regarding speed humps on local or collector roads, and would prefer that any demonstration projects occur on this classification of roadway. However, staff are not aware of any traffic engineering manuals that support the use of such measures on arterial roads; therefore, RMOC staff feel that "vertical traffic calming measures" should not be widely used on Regional roads until they are proven.

Speed humps and raised intersections are currently under design for Churchill and Kirkwood Avenues. When installed, they should provide a basis for evaluation, and further installations should await the results of this evaluation. It should be noted that any recommendation affecting Regional roads will be subject to a technical feasibility review by Regional and OC Transpo staff and emergency services, followed by a Council decision.

OC Transpo does not support the use of speed humps on roads that accommodate transit service. They are concerned that speed humps result in extra acceleration and deceleration which increases both noise and pollution in the subject neighbourhood. Also, OC Transpo is concerned that humps will make the ride less comfortable for customers, thus discouraging transit usage. In the past, OC Transpo has also expressed concerns with regard to potential damage to vehicle suspensions.

In view of the foregoing, staff are not able to endorse all of the recommendations of the CTCP nor are staff able to agree with all the roadway modifications proposed in the Preferred Traffic Calming Plan. Staff however, are satisfied that the Plan can serve as a basis for identifying "traffic calming" to be considered for Regional roads within the Centretown neighbourhood. It is therefore recommended that the CTCP be received. In this manner, the plan can serve to provide guidance for future implementation of traffic calming measures subject to Recommendations 3 and 5.

Recommendation No. 2

The Kent Street concept plan illustrated in Annex A provides an appropriate and acceptable concept plan to proceed with final design and implementation as priorities and funds dictate. The raised intersections illustrated for the intersections with Somerset Street and Gladstone Avenue are cause for concern on major arterial streets such as Kent Street, since they may have adverse impact on emergency vehicle and bus operations, and will require extra maintenance. These measures should not be implemented until the pilot project for Kirkwood and Churchill Avenues is assessed.

Recommendation No. 3

The Preferred Traffic Calming Plan (Annex B) presents a number of traffic calming measures throughout the Centretown neighbourhood. These measures are primarily intended to inhibit speeding and aggressive driving practices within the area, to improve the area's residential liveability and to minimize adverse impacts resulting from through traffic destined to and from the downtown. While the consultant has recommended that this plan be approved for detailed design and implementation, staff as noted, cannot support all of the consultant's recommended roadway modifications at this point. The specific measures and locations proposed are presented in Annex B. Table A of Annex C constitutes a list of measures recommended for City streets, while Table B identifies the measures recommended for Regional roads.

Implementation of any traffic calming measure, whether associated with proposed works or as individual projects, would be subject to a more detailed technical evaluation, detailed design, consultation, and identification of costs including maintenance costs. Any traffic calming measure deemed to be appropriate as a result of this more detailed examination would be the subject of a future submission to Council for approval. Staff Recommendations 2 and 3 serve to provide direction to use the CTCP as the basis for implementing traffic calming measures within Centretown and clarify that implementation of any measure will be determined only following more detailed review. The following highlights the actions that will be required prior to implementation. These actions include other approvals as required.

- detailed design including a technical circulation to determine the physical feasibility;
- technical review including;
    - impacts on other Departments, Branches, and Agencies
    - automobile speeds and volumes
    - vehicle collisions
    - transit
    - bicycles
    - pedestrians
    - other roadway users
    - maintenance (snow clearing, repairs, and spring clean-up)
    - emergency vehicles (police, fire, ambulance)
- identification of funds for the additional maintenance costs incurred by new measures; and
- additional public input (advertising per the Municipal Act, and Committee and Council decisions should objections be received).

A key component of the detailed review of any measure being considered for implementation is maintenance. The three main components of maintenance operations are hard surface repair/ replacement, winter maintenance, and spring clean-up. The following describes the maintenance activities that can be expected for traffic calming measures.

- A certain amount of plow damage to roadway modifications, such as intersection narrowings, is to be expected. In addition, repairing conditions such as differential settlement and damage to the hard surface(s) within the narrowing will require annual inspections and attention. Supplemental annual funds to maintain the hard surface roadway modifications will be approximately equivalent to the cost of replacing these facilities on a seven-year cycle (whereas the normal life cycle of asphalt pavement is 10 years, and of concrete curbs, gutters and islands is 25 years).

- With respect to snow and ice control, it is estimated that narrowings and other roadway modifications will not greatly affect the speed at which a street will be plowed or gritted with winter abrasives. However, it is estimated that to respond to winter thaws and rains, staff will be required to inspect the sites and respond to concerns about drainage and sight line obstructions (caused by snow banks) on a more regular basis. Experience with similar measures has shown that this type of attention is required after every storm of major accumulation (i.e. greater than 15 cm).

- Throughout the winter period, grit and other debris will accumulate on a narrowing. Each spring staff are required to remove these materials. Prior to sweeping the curb lane, staff must sweep the material off the sidewalks, boulevards, and narrowings onto the street to make it accessible to the roadway sweeper. Although the sidewalks can typically be swept mechanically, due to the size/shape and inaccessibility of some of the islands, medians, and narrowings, they must be swept by hand.

Recommendation No. 4

Staff cannot support any increase in peak period parking on Bank and Elgin Streets. Both streets are important transit corridors, and in keeping with Council's commitment to transit, as re-iterated in the new Regional Official Plan, must provide the best possible traffic flow during the peak periods to encourage transit use.

Recommendation No. 5

Based on the City's and Region's current financial situation, it is expected that traffic calming measures within Centretown will be implemented mostly where they can be incorporated into other scheduled road-works (including road and sewer, and overlay projects) subject to Recommendations 2 and 3. Some features on Regional roads may be implemented from the Traffic Calming Measures account. Also, the City will co-ordinate, to the extent possible, any projects with those being undertaken by the RMOC and will attempt to identify projects that would complement those being undertaken by the RMOC in order to assess potential impacts. Implementation priorities beyond those works that would be examined for implementation with other road-works (either by the City, Region or by other agencies) are expected to be subject to future capital budgets.

As with any physical modification to the roadway, monitoring is a key element in order to determine success. Staff propose that a comprehensive monitoring and evaluation programme be established. This will allow the effectiveness of implemented measures in terms of community expectations/perception, as well as the quantitative perspective to be determined. The results of this information in turn serves as a basis for future decisions as to the particular benefit of a particular measure in various situations within Centretown and other areas.

It is anticipated that the evaluation process will include, but not be limited to the following:

1. consultation with affected groups/agencies (Ward Councillor, City staff, RMOC staff, emergency services, special interest groups);
2. collection and analysis of data (vehicle speeds and volumes, collisions, winter maintenance);
3. updates on other projects at separate locations;
4. consultation with the affected public and businesses;
5. modification/removal of measures causing substantiated safety concerns; and
6. evaluation and confirmation of measures still to be implemented, following consideration of the above-noted items.

With approval of Recommendation 5, both the process proposed for priorizing traffic calming initiatives and for developing a monitoring programme will be acknowledged. Also, the requirement for developing a monitoring programme at this time to ensure that appropriate resources for the data collection and public consultation can be budgeted for will be confirmed.

CONSULTATION

The public participation component (detailed in Annex E) consisted of ongoing guidance from the Public Steering Committee/Working Group (composed of both community and government representatives), and input from two public meetings, and nine neighbourhood design workshops.

The consultant participated in a number of consultation activities with community representatives at the beginning of the study. The issues raised during these sessions were recorded (summarized in the consultant's report) and where appropriate, incorporated into the study process.

A series of nine workshops were conducted in November and December of 1995 within a three-week period. The workshops outlined the basics of traffic calming and provided an opportunity for all interested members of the community to provide input directly to the study consultants. Public consultation consisted of ongoing guidance from the Working Group, two public meetings, nine neighbourhood design workshops, two walking tours and one bicycle tour.

The consultant also participated in walking tours, bicycle tours, meetings with business associations, and open houses to determine individual concerns.

The following Departments or Agencies provided input during the course of the study and were provided a copy of this submission for review and comment. All comments received have been incorporated into this submission.

- Department of Planning Economic Development and Housing (City of Ottawa)
- Ottawa Fire Service
- Ottawa-Carleton Regional Ambulance Services
- OC Transpo
- Ottawa-Carleton Regional Police Services

Comments from technical agencies and advisory groups are outlined in the consultant's report and Annex F.

The comments of the Regional Cycling Advisory Group (RCAG) are attached at Annex G.

FINANCIAL IMPLICATIONS

For the purpose of strategic planning, the consultant has provided a general cost estimate of the proposed traffic calming devices. The consultant's estimate to implement all the proposed devices on Regional roads is $1.6 million. This estimate could change considerably with detailed design.

Maintenance costs are expected to increase for roadways on which the proposed traffic calming measures are implemented.

Implementation would proceed according to annual budget allocations and based on a Council-approved priority system for all traffic calming features identified as a result of studies such as this for roads throughout the Region.

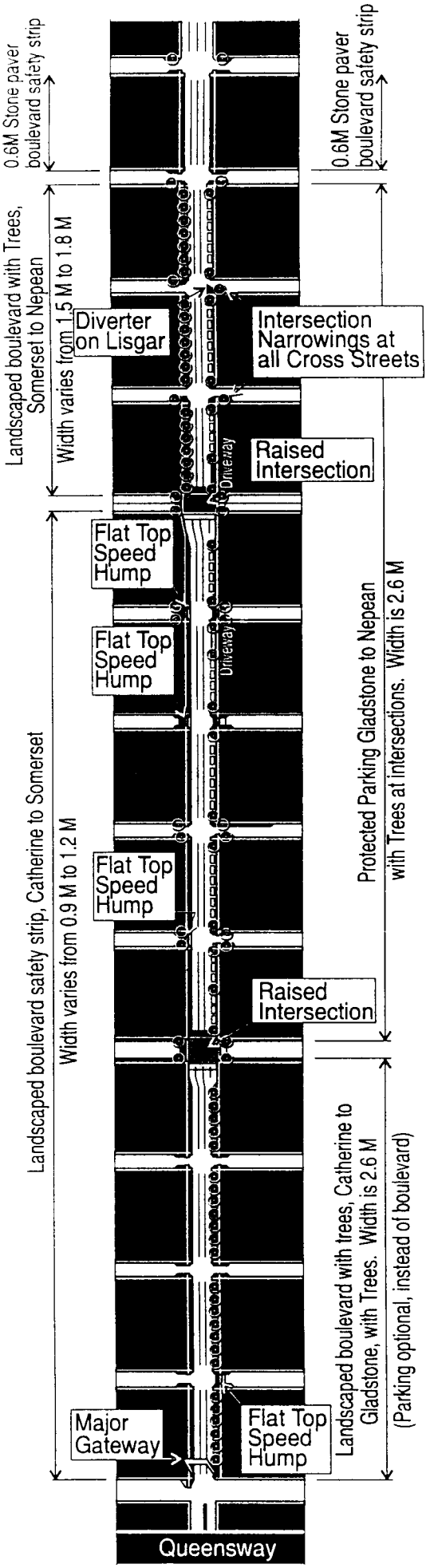
Approved by
Doug Brousseau

GM/sc

Attach: (7)

*LIST OF SUPPORTING DOCUMENTATION AVAILABLE AT CLERK'S DEPARTMENT

Document 1: Consultant's Report - "Centretown Traffic Calming Plan and Kent Street Traffic Calming Concept Plan"



Gloucester St.

Nepean St.

Lisgar St.

Cooper St.

Somerset St.

MacLaren St.

Gilmour St.

James St.

Florence St.

Gladstone Ave.

McLeod St.

Flora St.

Arlington Ave.

Catherine St.

Centretown • Kent Street Traffic Calming Plan

Preferred Kent Street Traffic Calming Concept Plan

iMPACT! Graphics • January 1997

LEGEND

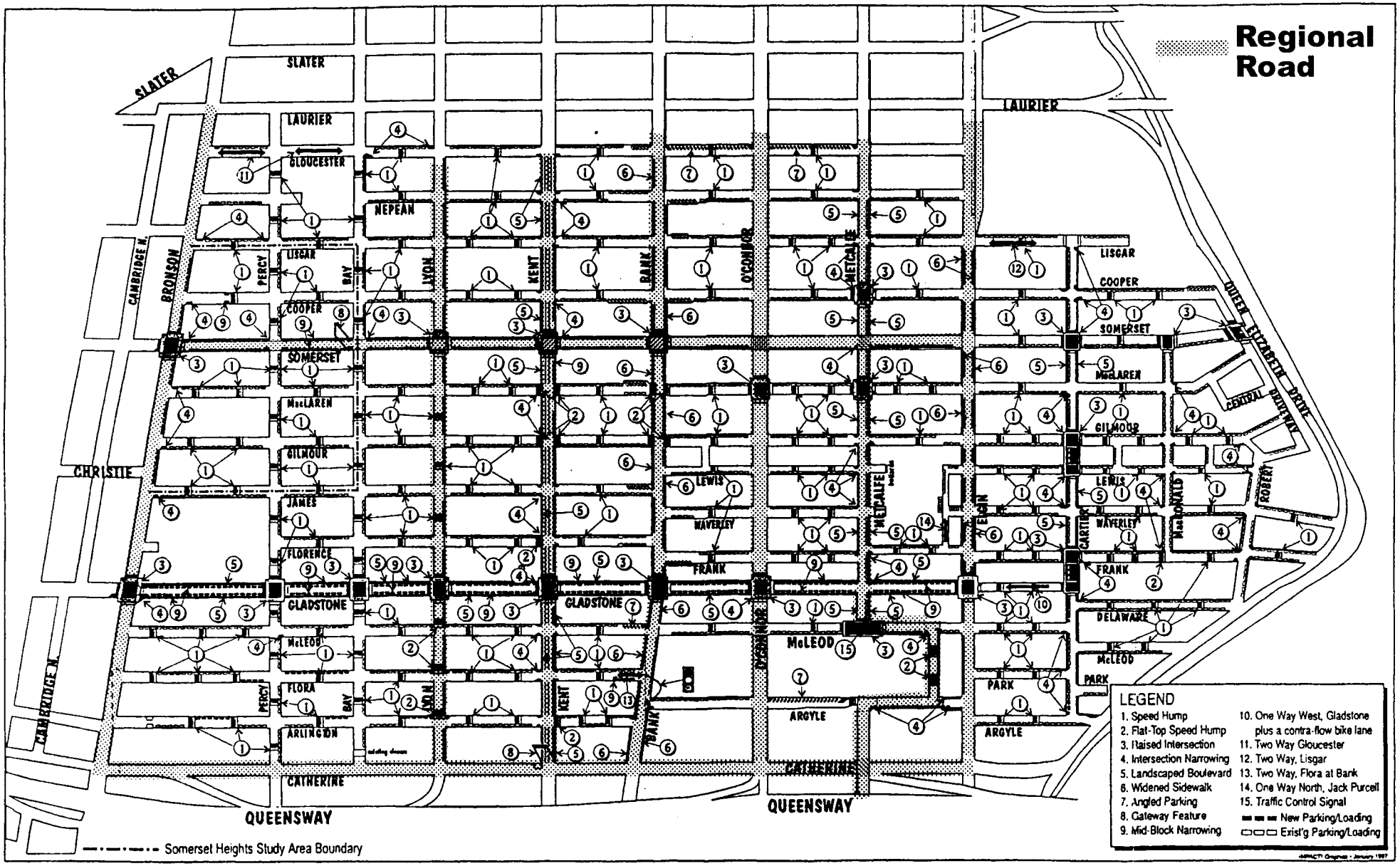
TREE

PARKED CAR

Centretown • Kent Street Traffic Calming Plan

The Preferred Traffic Calming Plan

Annex B



MEASURES RECOMMENDED BY THE CONSULTANT FOR IMPLEMENTATION
(from Preferred Traffic Calming Plan)

The following list is a summary of the type and number of "traffic calming" measures proposed in the consultant's Preferred Plan throughout the study area:

Table A and Table B detail the specific location for each measure with Table A identifying measures for streets under the City's jurisdiction and Table B identifying measures for Regional roads. Table A and Table B also identify estimated Capital Costs for implementation of each measure as stand-alone projects.

A. Roadway Modifications

i Intersection Narrowing / Channelization:

172 locations, intended to improve pedestrian safety (visibility), define on-street parking areas, and reduce vehicle speed.

ii Mid-Block Narrowing:

24 locations, intended to improve pedestrian safety and control vehicle speeds through neighborhoods

iii Speed Humps:

159 locations, intended to reduce vehicle speed and volume. Departmental staff are currently evaluating the effectiveness and impacts of recent speed hump installations on City streets prior to making a decision on additional installations.

iv Flat-Top Speed Humps:

16 locations, intended to regulate vehicle speeds. One such measure has to date been installed on Riverdale as a pilot project which is being monitored.

v Raised Intersections:

21 locations to control vehicle speeds, enhance pedestrian safety, and reduce regulatory signs at intersections. A raised intersection was recently developed at Cartier Street and Somerset Street as a pilot project.

vi Gateway Features:

1 location has been identified for signage and gateway treatment to encourage drivers to respect the community.

vii Diverter: (Kent Street)

While listed in the consultant's report, this item is not identified on the detailed plan. No details are available.

B. Other Physical Changes to Roadway

i Widened Sidewalks:

17 locations have been identified to improve pedestrian safety and comfort

ii Landscaped Boulevards:

31 locations (blocks) have been identified to enhance the overall environment.

C. Parking

i Additional On-Street Parking:

A number of locations have been identified for parallel parking in order to both increase supply and reduce the traveled roadway width.

ii Angled Parking:

4 locations have been identified to improve parking supply and to encourage slower traffic speeds.

D. Signage and Signal Modifications

i Convert to Two-way:

3 locations have been identified for possible conversion from one-way to two way operation. This is intended to improve vehicle access and cirulation, help to control speeds and reduce volumes.

ii Reverse Direction of Traffic:

2 locations have been identified to reverse the direction of traffic. This is intended to discourage cut through travel movements.

iii New Traffic Control Signal:

1 location has been identified to implement a new traffic control signal, to regulate and control traffic movements.

iv Relocate Traffic Control Signal:

1 location has been identified where it is recommended a traffic control signal be moved to an alternate position.

TABLE A
Centretown / Kent Street Traffic Calming Plan
Streets Under City of Ottawa Jurisdiction

STREET SECTION	PROPOSED TRAFFIC CALMING MEASURES	PHASING	CAPITAL COSTS	OFFICIAL PLAN DESIGNATION	RECOMMENDED DESIGNATION (traffic volume guidelines)	STAFF COMMENTS & ISSUES
Cartier Street between Lisgar street and Argyle Street	1 raised intersection	1	30000	Local	Living/ Mixed Purpose	90% Completed in 1996/97
	2 raised platforms	1	60000			
	20 intersection narrowings (11 wrap, 9 one street)	1	124000			
	widen landscaped boulevard (4 blocks)	1	0			
Percy Street between Somerset Street and Catherine Street	8 speed humps	1	32000	Local	Living Purpose	Subject to outcome of ongoing testing
	1 intersection narrowing (wrap)	*	8000			
Percy Street between Somerset Street and Gloucester Street	4 speed humps	*	16000	Local	Living Purpose	
Nepean Street between Bay Street and Elgin Street	1 speed hump	1	4000	Local	Mixed Purpose	
	2 intersection narrowings (2 one street)	1	8000			
	5 speed humps	*	20000	Local	Living/ Mixed Purpose	
	3 intersection narrowings (3 one street)	*	12000			
Waverley Street between Elgin Street and MacDonald Street	4 speed humps	1	16000	Local	Living Purpose	
	1 intersection narrowing (1 one street)	1	4000			
Waverley Street between Bank Street and Metcalfe Street	3 speed humps	1	12000	Local	Living/ Mixed Purpose	
	1 intersection narrowing (1 one street)	1	4000			
Waverley Street between MacDonald Street and Queen Elizabeth Drive	2 speed humps	*	8000	Local	Living Purpose	
Frank Street between Bank Street and Queen Elizabeth Drive	12 speed humps (1 flat-top, 11 speed)	1	50000	Local	Living/ Mixed Purpose	Some completed in 1997
	4 intersection narrowings (4 one street)	1	16000			
	reverse Jack Purcell Lane	1	2000			
Flora Street between Bronson Avenue and Bank Street	8 speed humps	1	32000	Local	Living Purpose	
	convert to two-way	1	2000			
	6 intersection narrowings (4 one street, 2 mid-block)	1	24000			
	new parallel parking on north side btw. Percy & Bay	*	500	Local	Living Purpose	
	new parallel parking on both sides btw. Bay & Bronson	*	1000			
Arlington Avenue between Kent Street and Bank Street	3 speed humps (1 flat-top, 2 speed)	1	14000	Local	Living/ Mixed Purpose	
	new parallel parking on north side	*	500			
Arlington Avenue between Kent Street and Bronson Avenue	6 speed humps	*	24000	Local	Living Purpose	
	4 intersection narrowings (4 one street)	*	16000			
	new parallel parking on north side	*	1500			
McLeod Street between the Queen Elizabeth Drive and Elgin Street	4 speed humps	1	16000	Local	Living Purpose	Some completed in 1997
	1 intersection narrowing (1 one street)	1	4000			
McLeod Street between Elgin Street and Bronson Avenue	10 speed humps	*	40000	Local	Living/ Mixed Purpose	
	6 intersection narrowings (6 one street)	*	24000			
	New Traffic Control Signal at Metcalfe	1	80000			
	new parallel parking on southside at Metcalfe	*	500			
	new angled parking on northwest side at Bank Street	*	10000			

* Not specified in the report

TABLE A
Centretown / Kent Street Traffic Calming Plan
Streets Under City of Ottawa Jurisdiction

STREET SECTION	PROPOSED TRAFFIC CALMING MEASURES	PHASING	CAPITAL COSTS	OFFICIAL PLAN DESIGNATION	RECOMMENDED DESIGNATION (traffic volume guidelines)	STAFF COMMENTS & ISSUES
MacDonald Street between Frank Street and Somerset Street	16 intersection narrowings (5 one street, 11 wrap)	1	108000	Local	Living Purpose	
	1 raised intersection	1	30000			
Park Avenue between Elgin Street and Cartier Street	2 speed humps	1	8000	Local	Living Purpose	
Argyle Avenue between Bank Street and Elgin Street	7 narrowings (6 one street intersection, 1 mid-block)	1	28000	Local	Mixed Purpose	
	new angled parking on north side btw. O'Connor & Metcalfe	1	10000			
	relocate traffic control signal from Flora & Bank to Argyle & Bank	1	80000			
	new parallel parking on south side btw. Metcalfe & Elgin	*	500			
Argyle Avenue between Elgin Street and Queen Elizabeth Drive	2 speed humps	*	8000	Local	Living Purpose	
	2 intersection narrowings (2 one street)	*	8000			
Lewis Street between Elgin Street and Robert Street	5 speed humps	1	20000	Local	Living Purpose	
	2 intersection narrowings (2 one street)	*	8000			
Lewis Street between Bank Street and Metcalfe Street	3 speed humps	1	12000	Local	Living/ Mixed Purpose	
	2 intersection narrowings (2 one street)	1	8000			
Bay Street between Gloucester Street and Catherine Street	11 speed humps	1	44000	Local	Living Purpose	
	new parallel parking on east side btw. Lisgar & Gloucester	*	500			
	1 intersection narrowing (1 wrap)	*	8000			
MacLaren Street between Bank Street and MacDonald Street	8 speed humps (1 flat-top, 7 speed)	1	34000	Local	Living/ Mixed Purpose	
	2 intersection narrowings (2 one street)	*	8000			
MacLaren Street between Bank Street and Bronson Avenue	4 speed humps	*	16000	Local	Living/ Mixed Purpose	
	3 flat-top speed humps	*	18000			
	4 intersection narrowings (4 one street)	*	16000			
Gloucester Street between Bronson Avenue and Bay Street	if feasible, convert section to two-way traffic	1	5000	Local	Mixed Purpose	
Gloucester Street between Bay Street and Metcalfe Street	5 speed humps	*	20000	Local	Mixed Purpose	
	10 intersection narrowings (10 one street)	*	40000			
	new angled parking on north side btw. Bank & Metcalfe	*	10000			
Lisgar Street between Elgin Street and Cartier Street	1 speed hump	1	4000	Local	Mixed Purpose	
	convert to two-way traffic	1	2000			
Lisgar Street between Elgin Street and Bronson Avenue	8 speed humps	*	32000	Local	Living/ Mixed Purpose	
	4 intersection narrowings (4 one street)	*	16000			
Gladstone Avenue between Elgin Street and Cartier Street	reverse direction of traffic	1	2000	Local	Living Purpose	
	2 speed humps	1	8000			
Gladstone Avenue between Elgin Street and Bronson Avenue	2 raised intersections	2	60000	Major Collector	Mixed Purpose	
	32 narrowings (12 one street intersection, 20 mid-block)	2	128000			
	widen landscaped boulevard	2	100000			
	new parallel parking on both sides btw. Bronson & Elgin	2	8000			

* Not specified in the report

TABLE A
Centretown / Kent Street Traffic Calming Plan
Streets Under City of Ottawa Jurisdiction

STREET SECTION	PROPOSED TRAFFIC CALMING MEASURES	PHASING	CAPITAL COSTS	OFFICIAL PLAN DESIGNATION	RECOMMENDED DESIGNATION (traffic volume guidelines)	STAFF COMMENTS & ISSUES
Somerset Street between Elgin Street and Driveway	2 speed humps 3 raised intersection	2 2	8000 90000	Local	Mixed Purpose	
Cooper Street between Bronson Avenue and Driveway	10 speed humps 2 intersection narrowings (2 one street)	* *	40000 8000	Local	Living/ Mixed Purpose	
Gilmour Street between Bronson Avenue and Driveway	14 speed humps 8 intersection narrowings (8 one street) 4 flat-top speed humps	* * *	56000 32000 24000	Local	Living/ Mixed Purpose	
James Street between Bronson Avenue and Bank Street	4 speed humps 3 intersection narrowings (3 one street)	* *	16000 12000	Local	Living/ Mixed Purpose	
Florence Street between Percy Street and Bank Street	5 speed humps 1 flat-top speed hump 2 intersection narrowings (2 one street)	* * *	20000 6000 8000	Local	Living Purpose	
Delaware Avenue between Cartier Street and Robert Street	3 speed humps	*	12000	Local	Living Purpose	
Robert Street between Frank Street and Lewis Street	7 intersection narrowings (7 wrap)	*	56000	Local	Living Purpose	Some completed in 1997
			2012000			

* Not specified in the report

TABLE B
Centretown / Kent Street Traffic Calming Plan
Streets under RMOC Jurisdisction

STREET SECTION	PROPOSED TRAFFIC CALMING MEASURES	PHASING	CAPITAL COSTS	OFFICIAL PLAN DESIGNATION	RECOMMENDED DESIGNATION (traffic volume guidelines)	STAFF COMMENTS & ISSUES
Lyon Street between Gloucester Street and Catherine Street	new parallel parking on east side btw. Catherine & Gloucester	1	5000	Major Collector	Mixed Purpose	
	3 flat top speed humps	1	18000			
	3 speed humps	1	12000			
	2 raised intersection	1	60000			
Kent Street between Catherine Street and Gloucester Street	new parallel parking on east side btw. Gladstone & Nepean	1	5000	Major Collector	Traffic Purpose	
	19 narrowings (18 wrap intersections, 1 mid-block)	2	148000	Major Collector	Traffic Purpose	
	1 diverter (?)	2	8000			
	1 raised intersection	2	30000			
	widen landscaped boulevard	2	50000			
	1 major gateway	2	50000			
Somerset Street between Bronson Avenue and Elgin Street	new parking on both sides btw. Bronson & Bank	1	5000	Major Collector	Mixed Purpose	
	1 raised intersections	2	30000	Major Collector	Mixed Purpose	
	1 major gateway	2	50000			
	6 intersection narrowings (6 one street)	2	24000			
	new parallel parking on south side btw. Bank & Elgin	2	1500			
Elgin Street between Catherine Street and Gloucester Street	new parallel parking on both sides btw. Frank & Lisgar	1	5000	Arterial	Mixed Purpose	
	new parallel parking on west side btw. Argyle & Gladstone	*	1000			
	widen sidewalks	2	100000	Arterial	Mixed/Traffic Purpose	
	1 intersection narrowing (1 wrap)	*	8000			
Bank Street between Catherine Street and Gloucester Street	new parallel parking on alternative sides	1	5000	Arterial	Mixed Purpose	
	2 intersection narrowings (2 wrap)	*	16000			
	widen sidewalks	2	100000	Arterial	Mixed Purpose	
	1 raised intersection		30000			
Bronson Avenue between Gladstone Avenue and Lisgar Street	2 raised intersections	2	60000	Arterial	Traffic Purpose	
	new parking		5000			
O'Connor Street between Catherine Street and Gloucester Street	2 raised intersection	2	60000	Major Collector	Traffic Purpose	
Metcalfe Street between Catherine Street and Gloucester Street	2 raised intersections	2	60000	Major Collector	Mixed Purpose	
	2 flat top speed humps	2	12000			
	15 intersection narrowings (5 one street, 10 wrap)	2	100000			
	widen landscaped boulevards	2	25000			
Metcalfe Street at McLeod Street	1 raised intersection	1	30000	Local	Mixed Purpose	
			1113500			

* Not specified in the report

ANNEX D

STAFF RESPONSE TO CONSULTANT'S RECOMMENDATIONS

The following comments on each of the recommendations contained in the consultant's report are presented to outline the staff position on each point.

1. That the Centretown Vision consisting of planning principles and streets designations be approved.

The consultant presents a hierarchy of street designations which differ from that currently in the City or Regional Official Plans. Currently, streets are classified as Urban Regional Roads, arterials, collectors or locals. The consultant proposes to redesignate streets as "living purpose", "mixed purpose" and "traffic purpose" streets. While staff acknowledge the philosophical basis for this hierarchy (slowing down traffic in residential areas), there is no basis for applying the designations and related criteria at this time.

2. That the Preferred Traffic Calming Plan, including the concept for Kent Street, be approved.

The Preferred Traffic Calming Plan (Figure 6.1 in the consultant's report) presents a number of traffic calming measures on many streets within the study area. It is hoped that the measures will reduce the speed and volume of traffic on local streets and the speed of traffic on Regional roads.

Both the City of Ottawa and the Regional Municipality of Ottawa-Carleton (RMOC) accept the Preferred Plan as a conceptual/strategic study providing the basis for identifying traffic calming measures to be implemented on streets within the study area (Staff Recommendation 3). The RMOC accepts the Preferred Kent Street concept as a basis for design (Staff Recommendation 2).

While the RMOC is concerned with implementation of vertical measures on Regional roads, at least until they are proven and widely-accepted North American guidelines and standards are in place, implementation of speed humps and raised intersections on Kirkwood and Churchill Avenues will provide a pilot study on a major road. Furthermore, the RMOC recommends against any relaxation of curb parking on Bank and Elgin Streets during peak periods because of potential disruption, delay and schedule adherence problems for transit.

3. That an interim set of traffic calming guidelines and standards be developed.

The City of Ottawa is currently working with a variety of guidelines and standards from various sources, including the Institute of Transportation Engineers (ITE), and testing their application on some City streets. The City will not develop new standards, but when the Transportation Association of Canada (TAC) guidelines are available, the City will consider them. The RMOC staff will monitor the City's work and measures implemented on Regional roads in the Parkdale and Kirkwood/Island Park areas.

4. That the performance of Cartier Street be assessed and a similar pilot study be done for Lyon Street.

The Cartier pilot study is currently underway. RMOC staff would not object to a similar study on Lyon Street pending an assessment of verticle measures proposed for Kirkwood and Churchill Avenues. However, it must be noted that Lyon Street, unlike Cartier Street, performs a significant Regional function (i.e. connects to a Queensway on ramp).

5 That the City of Ottawa and the RMOC prepare detailed designs of the traffic calming measures on a street-by-street basis in conjunction with residents and merchants prior to implementation.

This is essential for successful implementation. Detailed design work should also be dictated by the road reconstruction projects scheduled for subsequent year(s).

6. That the Implementation Schedule be approved.

Under the current financial limitations, the City of Ottawa will only be implementing traffic calming measures when they can be incorporated into other scheduled road-work (includes road and sewer or overlay projects). As the Plan is conceptual, the City will be reviewing each proposed measure on a case-by-case basis as the above-noted road-works are scheduled.

Where feasible, the City will co-ordinate any projects with those undertaken by the RMOC. The City will identify those projects which would complement RMOC projects.

The RMOC will be developing a priority-setting mechanism for all projects identified in traffic calming planning studies. It is anticipated that the highest priority will be assigned to those projects that can be completed in conjunction with other scheduled road-works.

7. That at the design stage, every street and traffic calming measure be assessed to determine the potential for adding greenery.

This is Council policy.

8. That angled or parallel parking be installed on a street-by-street basis, as requested by residents and merchants, provided that there is space.

Staff concur, subject to geometric/sight distance (safety concern) considerations at intersections. RMOC staff are opposed to any increase in peak period parking on Bank and Elgin Streets (Staff Recommendation 4). Both streets are important transit corridors which must provide relatively uncongested flow during the peak periods to encourage transit use. The Regional Official Plan gives priority to transit.

9. That the performance and impact of the traffic calming measures be monitored in conjunction with the community.

This is essential (Recommendation 5).

ANNEX E

RESULTS OF PUBLIC CONSULTATION

A Public Steering Committee Working Group was a fundamental source for public input throughout the study process. The Group included community and business representatives, the City and Regional Councillors for the area, and staff representatives from various Departments of both the City of Ottawa and the Regional Municipality of Ottawa-Carleton.

The following details the main components of the Public Participation Process.

1. Public open houses: 18 and 24 October 1995

   The Public Open Houses (October 1995) were advertised in both the community and local newspapers. Also 15,000 copies of the Centretown Traffic Calming Report tabloid were delivered in the community as an insert in the community paper, with the October and November issues.

2. Workshops held in November and December, 1995.

   The November/December 1995 workshops were advertised in the community newspaper, The Centretown News.

Workshop #1	Elgin Street to Canal, south of Lisgar Street
Workshop #2	Elgin Street Property Owners
Workshop #3	South of Gladstone Avenue; Bronson Avenue to Elgin Street
Workshop #4	North of Gladstone Avenue; Bronson Avenue to Bank Street
Workshop #5	Board of Trade and BOMA
Workshop #6	North of Gladstone Avenue; Bank Street to Elgin Street
Workshop #7	Bank Street Promenade and Somerset Village BIA
Workshop #8	Kent Street
Workshop #9	Somerset Heights BIA

   Each workshop (except Workshop #5) followed a similar format and lasted about three hours. The first half of the workshop included a discussion of issues and concerns, and a seminar on traffic calming techniques. The second half provided an opportunity for participants to draw their traffic calming ideas on maps of their streets. These sessions provided the basis for the Preferred Traffic Calming Plan included in the consultant's report.

3. Bicycle tour - 8 April 1995.

4. Walking tours - 10 and 11 April 1995.

5. Business association meetings (Spring 1995):

    - Bank Street Promenade BIA
    - Building Owners and Managers Association (BOMA)
    - Somerset Village BIA
    - Rideau Street BIA
    - Central Area Parking Task Force
    - Ottawa-Carleton Tourism Authority
    - Voyageur Colonial Limited

Summary of Comments Received on the Consultant's Report

Co-chairs of Study Working Group/Steering Committee

Following their review of the consultant's report and the Preferred Traffic Calming Plan, both Co-chairs for the Public Steering Committee/Working Group expressed support for the consultant's report/findings/recommendations. They feel that there was an extensive and balanced public consultation process. The study fulfilled the Terms of Reference, and the proposed measures in the consultant's traffic calming plan are both supported by the study findings, and equitable to all stakeholders.

> "The report exposes the problems created in Centretown when traffic management policies and practices are dominated by the simplistic view of treating the north-south Regional roads merely as traffic corridors for peak AM and PM traffic. The Report provides a solid rationale and outlines the long term benefits of adopting policies and practices which are based on a more responsible and respectful approach of balancing the interests of commuters as well as those of local residents and businesses."

Public Comments

A number of letters both in support of, and opposed to the study philosophy/methodology were received from members of the steering committee/working group and from the general public. The concerns ranged from very explicit items, to comments of a more encompassing nature. Some concerns pertained to the design and location of measures identified in the consultant's Preferred Traffic Calming Plan, such as angle parking, or a particular narrowing placement. Other concerns related to the appropriateness of allocating public funds to this type of programme at this particular time (cost/benefit).

Concern

The most common concern was with regard to the amount of money that would be required to implement and maintain the measures identified in the consultant's Preferred Traffic Calming Plan.

Departmental Response

It should be noted that prior to the adoption/implementation of any new measure, additional public input and possibly Council approval will be required to be undertaken. Therefore, Council's receipt of this study report (Recommendation 1) should not be viewed as an approval of implementation.

Funds are currently not available for large-scale implementation of traffic calming measures. No work can commence until this funding is approved, and it is expected that if Council wishes to proceed with traffic calming, these measures will be implemented at the time of larger scale roadway/sewer reconstruction projects. Some elements may be funded from the traffic calming budget.

Additional annual maintenance costs will be incurred following the implementation of roadway modifications. Therefore, additional funds will be required in the future within operating budgets for maintenance activities as specific measures are implemented. The estimated additional annual maintenance cost on roadways under Regional jurisdiction will be determined prior to the implementation of any measures. Financial details relating to additional operating costs will be identified in future reports to Transportation Committee describing specifics of implementation.

Concern

Another concern was about the ability of large vehicles, including delivery trucks, and emergency response equipment (fire, police and ambulance), to safely and quickly negotiate the subject roadway modifications.

Departmental Response

It is important to note that no road closures have been proposed by the consultant. Therefore, all of the current response and service routes will continue to be available for use. The intersection narrowings incorporate corner radii that will accommodate a single unit truck design vehicle. The Department has, in the past, and will continue to work with emergency services representatives to discuss and carry out field tests of any new roadway modification designs (i.e., vertical elements) in order to ensure their viability with all stakeholders.

Certain types of measures will only be considered for implementation following an assessment of the previously implemented test cases at other locations. Examples would be the speed humps installed on Stewart Street and on Riverdale Avenue under City jurisdiction and on Churchill Avenue and Kirkwood Avenue under Regional jurisdiction. This will prevent the proliferation of untested measures by ensuring their appropriateness/effectiveness, and that associated maintenance costs can be supported. This also provides the opportunity to make design modifications to traffic calming measures in order to customize them to each situation (i.e. winter maintenance equipment, driver expectations, signage/pavement markings). In the majority of locations where physical changes to the travelled portion of the right-of-way are proposed, further consultation with the affected residents and businesses will occur through newspaper advertising and associated Committee meetings, where required.

Concern

Concerns that if it is made more difficult for drivers to access the Centretown area, it will be detrimental to local businesses.

Departmental Response

Access is not being physically limited.

The majority of the measures being considered in this report are intended to reduce vehicle speeds through the Centretown area. If implemented, these measures are expected to have the greatest effect in off-peak times when traffic is the lightest. During the peak periods the vehicle speeds are restricted simply by the volume of traffic on the roads.

ANNEX F

INPUT FROM AGENCIES AND ADVISORY GROUPS

The following technical agencies were involved throughout the study process. The majority of the technical comments received dealt with implementation of certain measures. These concerns will be dealt with in the future when measures are identified for potential implementation.

OC Transpo

All existing bus stops along Somerset Street, Gladstone Avenue, Bank Street, Elgin Street, and Kent Street must be retained at existing locations.

We do not support the implementation of all-day parking along Bank Street, Elgin Street, Somerset Street, or Gladstone Avenue, particularly during peak periods.

Any street narrowings at bus stop locations should be extended at least to the back door of the bus to allow passengers to alight onto the sidewalk rather than between parked cars.

We do not support reversing the one-way eastbound direction of Gladstone Avenue, between Cartier and Elgin Streets, as it is part of a Communibus route.

We do not support the installation of speed humps on Lyon Street or any other Regional road.

Ottawa Cycling Advisory Group (OCAG)

There is a desire for a contra-flow bicycle lane on Gladstone Avenue between Cartier Street and Elgin Street.

Angled parking should not generally be considered on cycling routes due to concerns regarding visibility when vehicles are reversing out of a stall.

Ottawa Pedestrian Advisory Group (OPAG)

The consultant's report should emphasize the benefit to community and businesses resulting in an increase of people returning to downtown as a place to live.

Traffic calming should be given highest priority by Council.

Staff should meet with BIAs to promote the benefits of traffic calming to the community.

Reduction of travelled lanes should not be achieved by adding a parking lane; rather it should go to increase green space.

Pilot studies should not unduly delay the implementation of traffic studies.

They fully support streetscaping on Metcalfe and Kent Streets.

Metcalfe and Kent Streets should become part of the Ceremonial route.

Traffic calming should be included in City of Ottawa and Regional Official Plans.

Ottawa Fire Service

Representatives of the Fire Department have expressed concerns regarding the implementation of traffic calming measures (i.e. speed humps) on roads that serve as primary response routes for fire fighting vehicles. It was recognized that measures that could marginally increase response times on local residential streets were not as large an issue, provided overall accessibility was not restricted.

Concern was also expressed that all measures be designed with due consideration for fire vehicles. Issues of particular concern were turning radii, vertical angles of departure, clear demarcation of the subject devices with pavement markings and signs for vehicle operators.

It has been agreed that the Fire Department be involved with additional field tests and the implementation details (i.e. designs, timing, locations, etc.).

Ottawa-Carleton Regional Police Service

The Police Services' representatives are generally not in support of traffic calming measures. The primary reason is a possible increase in response time to emergency calls. They do not generally support road closures or one-way streets as these measures tend to reduce their route options when responding to calls.

Roadway narrowings are acceptable provided that in an emergency the police cars can drive over them. This means that vertical measures such as planters must be kept well back from the curbs.

Ambulance Services

The study area that will be subject to traffic calming is large, and ambulances respond to approximately seven to 14 life threatening calls per week. Concern was expressed about the response time being negatively affected by traffic calming measures. There is also a concern about the impact the vertical measures (i.e. speed humps) will have on the attendants' ability to administer first aid to the patients on the way to the hospital.

There was a recognition that traffic calming may result in lower speeds and therefore less collisions.

ANNEX G

COMMENTS FROM THE REGIONAL CYCLING ADVISORY GROUP

Mr. Grant Malinsky,
Environment and Transportation Department
Fax: 560-6068

February 13, 1998

Re: Draft Centretown Traffic Calming Plan
Comments from Regional Cycling Advisory Group (RCAG)

Dear Mr. Malinsky,

Attached are comments from the Regional Cycling Advisory Group on the May 1997 version of the Centretown Traffic Calming Plan and the Kent Street Traffic Calming Concept Plan. They have been revised to reflect staff's final report.

We agree with the consultant's general recommendations in the Executive Summary (p. vii) and the Planning Principles (pp.71-74). Except where noted we support the direction the Region is taking to improve the safety and comfort of cyclists through the implementation of the Centretown Traffic Calming Plan.

4.1.2 A Policy Framework for Traffic Calming - The RMOC

This section is out of date. It does not reflect the Traffic Calming components of the new RMOC Official Plan and Transportation Master Plan, and should be corrected.

5.2.1 Top Four Objectives

3. Improve pedestrian and cycling conditions

There are few details in the report that show how cycling conditions (crash rate, travel time, etc.) are improved by the plan. We are disappointed that Annex C, "Recommended Measures for Implementation," fails to identify a single way in which cycling conditions will be improved.

6.3 Key Features of the Traffic Calming Plan

5. Other streets and intersections - place parking on the left-hand side of the road where possible. Placing parking on both sides not a recommended traffic calming technique from cyclists' perspective.

6.3.2 Regional Roads

3. RCAG supports reducing Kent St. from 4 to 3 lanes providing the curb lane is wide enough to share.

4. RCAG supports staff recommendation that additional peak period curb parking on Bank and Elgin Streets not be approved. New parking should not be added on Bank Street north of Gladstone because it is a CTN route and the road is too narrow for cyclists to safely pass parked cars.

7. Elgin St. needs new pavement, especially south of Gladstone St.

6.6.3 Comments by RMOC

RCAG supports Regional staff's willingness to consider implementing traffic calming measures on Regional roads. RCAG asks for consideration of the needs of cyclist traffic during the design of all traffic calming measures, as per the Transportation Master Plan and Official Plan for the following reasons:

- Regional roads are also important to cycling traffic and in many cases are the only road to a destination.
- Regional roads are required to safely accommodate all types of traffic, not just buses and trucks. RCAG does not see where Regional staff have addressed the needs of cyclist traffic using Regional roads.
- the majority of cyclist deaths in Ottawa-Carleton have occurred on Regional roads. Motor vehicle speed was a significant factor in cyclist deaths. Regional staff have not been able to effectively control dangerous motor vehicle speeds on these roads. Traffic calming can be an effective measure to reduce speeds and cycling deaths on Regional roads.
- Traffic calming will likely have a negligible effect on road capacity at peak because, due to congestion, vehicles are already traveling at slower, calmed speeds.

If the RMOC insists on waiting for the draft TAC guidelines on traffic calming, RCAG requests it be consulted on the impact to cyclist traffic as a result of the guidelines.

Comments on Traffic Calming Measures Used

Vertical Measures: Speed Humps, Flat-top Speed Humps, and Raised Intersections these are preferred traffic calming measures and acceptable to cyclists if they are well marked. Based on local experience (raised intersection, Cartier at Cooper) and speed humps (Algonquin Woodroffe campus) cyclists traffic is not adversely influenced by vertical measures.

4-way stop signs that have been incorrectly placed as a measure to control speeding motor vehicles should be removed where raised intersections are installed on roads, unless there is no clear pedestrian need.

Intersection Narrowing- "bulb-outs" only at intersections are not recommended, as cyclists get squeezed at the pinch point. Placing bulb-outs mid-block, including landscaping is a good indication to all road users that the curb is not a travel lane.

Landscaped Boulevards- supported

Widened Sidewalks- supported where feasible
Parking - angled parking should be avoided because motorists' vision is blocked by adjacent parked vehicles when they exit the stalls. They need to back out 1 - 2 metres, right into the typical cyclists' line of travel, to be able to see if the lane is clear to enter.

- parallel parkers opening their doors into the path of a cyclist is also a significant problem and a standard set of design criteria must be evaluated to determine if the placement of parking exacerbates this problem. Elgin Street is a classic example of a street where it is difficult not to cycle too close to parked cars: a cyclist traveling right next to the parked vehicles leaves enough room for faster traffic to safely pass but is vulnerable to being doored by an inattentive motorist leaving a parked vehicle. If the cyclist moves out far enough from the parked cars to avoid any opened doors they force faster traffic to slow down and wait until there is no on-coming traffic, which is a very intimidating action for most cyclists on a Regional road.

When considering the allowance of parking, streets should either be of sufficient width to allow faster traffic to pass safely in the same lane when a cyclist is traveling a safe distance from parked vehicles, or the speeds and traffic volumes are low enough that faster traffic can safely pass the cyclist by using the left side of the road.

Gateway Feature - supported

Mid-block Narrowing- supported wherever intersection narrowings are being considered

Two-Way on Gloucester Street; Two-Way Lisgar Street; Two-Way Flora Street at Bank
supported

General Comments on the Centretown Traffic Calming Plan:

1. Analysis of bicycle crashes is still missing and needs to be added. This was a clearly identified need in a draft from a year ago, yet the work has not been done. If improving cycling safety is truly a target for the study, an actual assessment of car/bike collisions is needed in this report.

A compilation of reported car/bike collisions along with baseline bike traffic counts would have been useful to assessing the relative dangers of bicycle travel along each street and in identifying "hot spots" which deserve closer scrutiny. Mid-block collisions such as car doors opened into a cyclist's path and sideswipes need to be included. Some analysis of the street characteristics of where bike travel is found and where it is not would help assess what makes a road in Centretown a desirable route for cyclists.

This is an essential element of work that is missing from a report paid for in part by the RMOC, and this missing data/analysis needs to be addressed if the RMOC is to receive full and proper value for its money.

2. Convert more one-way streets to two-way streets

This issue should have been specifically addressed in this study. The one-way street system was developed to aid motor vehicle traffic traveling through Centretown. The result was increased traffic speeds, and increased difficulty accessing locations in Centretown for both cyclists and motorists. Most of Centretown's one-way east-west streets could easily be converted to two-way streets. This would serve three purposes: increase the ease of access to destinations in Centretown, slow the speed of traffic on local and collector roads, and lower the incidence of wrong-way cycling.

3. Remove more stop signs

More work should be done to eliminate stop signs, especially four-way stops with more appropriate traffic control devices such as traffic circles or raised intersections. Cartier, Percy and Bay St. bike routes especially suffer from an inappropriate number of stop signs for cycling routes, and immediate action should be identified in this report.

4. Identify and address the hazards and effects motor vehicle parking will have on cyclists.

Minimize angle parking or design wide enough spaces so that motorists will be able to clearly see bike traffic. Where parallel parking is being added on Regional roads ensure that sufficient space is provided to allow a safe path for cyclists far enough away from open car doors. Almost all bicycle design documents identify this specific space requirement.

Thank you for soliciting our comments on this important report.

Al Corbishley
Chair, Regional Cycling Advisory Group