

**COUNCIL AGENDA/INFORMATION**

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|--|-------------|--------------|
| <input type="checkbox"/> In-Camera       | Date: _____ | Item # _____ |
| <input type="checkbox"/> Regular         | Date: _____ | Item # _____ |
| <input type="checkbox"/> Info Package    | Date: _____ | Item # _____ |
| <input type="checkbox"/> Agenda Addendum | Date: _____ | Item # _____ |

Dept. Manager	Director	Municipal Manager
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**The District of North Vancouver  
REPORT TO COUNCIL**

July 3, 2001  
File: 8620-30/06  
Tracking Number: RCA -

**AUTHOR:** Donna Howes, P.Eng. - Assistant Manager, Transportation

**SUBJECT:** Riverside Drive Traffic Calming Project

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**RECOMMENDATION:** That the detailed design for the speed humps on Riverside Drive as shown in Diagram 3 be completed and installed.

**REASON FOR REPORT:** Council passed a resolution that staff conduct a survey of the neighbourhood to determine the level of support for traffic calming. As a result, Riverside Drive was included in the traffic calming program for 2000.

**SUMMARY:** Staff have completed a review of the traffic safety issues on Riverside Drive north of Grantham Drive. This report details this review which included additional data collection and technical analysis together with detailed community consultation. Speeding on Riverside Drive was confirmed to be an issue from the technical analysis. The majority of residents acknowledge that there are traffic safety concerns and problems with vehicles speeding. The recommended plan is to implement four speed humps on the lower end of Riverside Drive. Residents on the lower portion of Riverside Drive are much more supportive of speed humps as they are most affected by the speeding.

**BACKGROUND:** Over the past few years, local residents have expressed concern about speeding along Riverside Drive East, north of Grantham Drive. The history of this issue is summarised in Attachment 1.

Riverside Drive, north of Grantham, is a Local Road with an average width of 8m. Parking is allowed for the majority of the street with Resident Only Parking north of Swinburne (May – Sept only). A limestone sidewalk extends north on the west side from Grantham with some beacon hydro lease lighting at locations along the street.

This issue has been reassessed with the recently adopted District Traffic Calming Policy, “Neighbourhood Traffic Calming Program and Procedures”, August 1999. Traffic counts have been undertaken over a period of time and the results are shown in Attachment 2. These counts were assessed with the policy (Attachment 3) and this confirmed that further study was required, which included a community consultation process. The main measure for speed is the 85<sup>th</sup> Percentile Speed which is the speed at or below which 85 % of the drivers are travelling at. This speed is used to compare the levels or degree of speeding on different streets. The traffic count data shows that the

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85<sup>th</sup> Percentile Speed varies from 64.5 km/h (just north of Grantham) to 61.4 km/h (near Swinburne). By comparison, this speed is high for a Local Road in the District. Recent speed studies have indicated that the typical range of speeds (85<sup>th</sup> percentile) that were recorded on other Local Roads in the District is 52 km/h to 60 km/h.

**EXISTING POLICY:** Policy No. 11-8620-1.

**ANALYSIS:** The study area is shown in Diagram 1. Staff retained the services of Context Research in January 2001 to help facilitate the process, and District staff provided the technical input with some expert assistance from Richard Drdul, Urban Systems.

The community consultation is documented in the report from Context Research (Attachment 4) and a summary of the process is shown in Diagram 2. A Project Team was set up consisting of staff from Community Planning, the RCMP, Transportation Operations, Transportation Planning and Engineering Design. Staff also met with a small Community Contact group throughout the process to provide input on the approach to consultation. Two work sessions with the community were held. This first session was designed to allow participants to share views on the traffic safety problems and possible improvements. The second session focused on possible solutions. In addition, two questionnaires were sent out to the neighbourhood to confirm feedback from the work sessions.

A number of traffic safety issues, which were raised by the community, can be improved upon in the short term utilising current budgets. This is shown in Table 1.

**TABLE 1: SHORT TERM TRAFFIC SAFETY IMPROVEMENTS**

ISSUE	ITEM	LOCATION	COST
SIDEWALKS	Limestone sidewalk only	Grantham – End: West side (2,000m)	DNV Operating (2001 / 2002 budget)
STREET LIGHTING	BC Hydro Lease lights	On request: 3 current applications	\$10.50/ light/ month
ENFORCEMENT	RCMP Corridor Enforcement	Length of road (June – Dec 2001)	RCMP operating
SIGNAGE	More visible No exit	At entrance to Riverside	\$150
ROAD MAINTENANCE	Catch basins, handrails	Length of road	DNV Operating (2001 / 2002 budget)

Speeding remained the number one concern and to address this, District staff, with input from Richard Drdul, looked at options for the corridor. Commonly used traffic calming devices are shown in Attachment 5. Speed humps are effective in reducing average speeds in a corridor. In addition, they are easy to install and cost effective. There are some concerns by the Community about the effect on emergency response times. Staff liased with Fire and Ambulance and the percentage delay is very low and they do not foresee this as a problem.

The recommendation is to install four speed humps in the lower part of Riverside Drive. This is shown in Diagram 3. The majority of residents acknowledge that there are traffic safety concerns and problems with vehicles speeding. Community input is one of a number of inputs which include the technical analysis, the RCMP, advice from traffic management experts, and the District's responsibility for public safety and the road network. Support for placing these speed humps is highest among residents in the middle and lower end of Riverside Drive (84% of respondents), where the speeding issue is the most prevalent and of the greatest concern.

**Timing/Approval Process:** Staff would like to resolve this issue as soon as possible.

**Concurrence:** TPAC have been kept informed on the progress of the project. Emergency Services have been consulted on options considered. The RCMP played a key role in the Project Team and the community consultation.

**Financial Impacts:** An estimate for the speed humps is approximately \$8,000 (Incl. taxes and overheads). This can be accommodated in the current Engineering Budget.

**Liability/Risk:** N/A.

**Business Plan:**

- **Social Policy Implications**

The liveability of District neighbourhoods has the potential to be improved by Traffic Calming, and by reducing vehicle speeds.

- **Environmental Impact:**

The potential for reducing speeds through communities could also reduce air pollution to a small degree in those areas.

- **Public Input:** This is summarised in Attachment 4.

**Options:**

1. That the detailed design for the speed humps on Riverside Drive as shown in Diagram 3 be completed and installed

or

2. Do not install speed humps.

Donna Howes, P. Eng.

Assistant Manager, Transportation Planning.

<u>REVIEWED WITH:</u>	<u>REVIEWED WITH:</u>	<u>REVIEWED WITH:</u>	<u>REVIEWED WITH:</u>
<input type="checkbox"/> Eng. Trans/Public Works	<input type="checkbox"/> Clerk's Office	External Agencies:	Advisory Committees:
<input type="checkbox"/> Eng. Services	<input type="checkbox"/> Communications	<input type="checkbox"/> Library Board	<input type="checkbox"/> _____
<input type="checkbox"/> Eng. Parks	<input type="checkbox"/> Finance	<input type="checkbox"/> NS Health	<input type="checkbox"/> _____
<input type="checkbox"/> Eng. Utilities	<input type="checkbox"/> Fire Services	<input type="checkbox"/> RCMP	<input type="checkbox"/> _____
<input type="checkbox"/> Plg. Community Planning	<input type="checkbox"/> Human Resources	<input type="checkbox"/> Recreation Commission	
<input type="checkbox"/> Plg. Social Planning	<input type="checkbox"/> ITS	<input type="checkbox"/> Other: _____	
<input type="checkbox"/> Plg. Permits & Licenses			
<input type="checkbox"/> Plg. Land			
<input type="checkbox"/> Plg. Env. Protection			

**ATTACHMENT 1**

**RIVERSIDE DRIVE - HISTORY OF TRAFFIC CALMING**

1. **October 10, 1995, ORIGINAL PETITION TO LOWER SPEED LIMIT**
  - Council received petition (signed by 157 residents) requesting a reduction in the speed limit 50 to 40 km/h.
  - The letter also included complaints about poor street lighting and no sidewalks from Mt. Seymour Pkwy to Chapman Way (approx. 2.3 km).
2. **November 28, 1995: Volume and Speed Summary 1600/1700 Block (2 day)**
  - NB Daily Average (Tue/Wed): Count = 566, (85<sup>th</sup> Percentile Average) 57.6 km/h
  - SB Daily Average (Tue/Wed): Count = 499, (85<sup>th</sup> Percentile Average) 57.8 km/h
3. **December 6, 1995, Traffic and Safety Meeting agreed unanimously that:**
  - A 40 km/h zone be posted only along main curve around the 1900 block.
  - A Speed Watch Van should be utilised in the area.
  - The Engineering department review footpath condition and street lighting.
4. **January 11, 1996**
  - 40 km/h speed limit signs installed along the bend around the **1900 block** of Riverside Drive. *\*\* Limits from Mike\*\**
5. **June 17, 1996, COUNCIL MEETING on Dec. 19/95 Letter by NN**
  - Recommending a review on improving pedestrian safety on Riverside Drive.
  - Council passed the following resolution that staff prepare a report including:
    - Reducing the existing speed limit on Riverside Drive between Mount Seymour Parkway and the 2200 block of Chapman Way from 50km/h to 40km/h.
    - Improvements to street lighting.
6. **July 22, 1996, COUNCIL MEETING on July 16/96 Report to Council by GJ**
  - Recommending the 50 km/h speed limit
  - No decision, Council met again on August 12, 1996.
7. **August 7 - 13, 1996**
  - District receives 15 letters from residents residing in the Riverside area requesting again that the current speed limit of 50 km/h be lowered to 40 km/h.
8. **August 12, 1996, COUNCIL MEETING on July 16/99 Report to Council by GJ**
  - GJ recommends in report that the 50 km/h speed limit remain.
  - Council votes against it and reduces the limit to 40 km/h for a 6-month trial period.
9. **August 16, 1996**
  - GJ writes to residents explaining that a 40 km/h speed zone will be installed on a trail basis until March 31, 1997.
10. **August 30, 1996**
  - 40 km/h speed limit signs installed.
11. **March 25, 1997, 1700 block Speed Summary (5 day)**
  - NB Daily Average (Tue/Wed): Count = 523, 60.4 km/h (85<sup>th</sup> Percentile)

- SB Daily Average (Tue/Wed): Count = 580, 63.9 km/h (85<sup>th</sup> Percentile)
- 12. **September 1, 1997, PETITION TO REINSTATE 50 KM/H**
  - District receives a petition from residents to raise the speed limit back to 50.
  - 48 of the original 157 petitioners have changed their mind and feel that the 40 km/h speed limit was not successful. (Also 18 of the original petitioners have moved out of area)
- 13. **October 6, 1997, COUNCIL MEETING on Sept. 16/97 Report to Council by AM**
  - Recommends reinstating 50km/h zone due to the fact that the 40 km/h zone had little affect on lowering speeds along Riverside Drive.
  - Council reinstates 50km/h zone.
- 14. **October 8, 1997,**
  - Speed limit along Riverside Drive returned to 50 km/h.
- 15. **October 20, 1997, COUNCIL MEETING on Oct. 16/97 Report to Council by NN**
  - Recommends having that RCMP continue periodic enforcement or; have staff conduct a survey of the neighbourhood to determine the level of support for traffic calming on Riverside Drive.
  - Council passed a resolution that staff conduct a survey of the neighbourhood to determine the level of support for traffic calming.
- 16. **January 16, 1998, NEIGHBOURHOOD SURVEY**
  - Asking residents if they feel motorists drive too fast on Riverside Drive and whether they would support a proposal to implement a traffic -calming plan.
- 17. **March 25, 1998, Draft Report by MF**
  - Overall Results of Survey in the Riverside area
    - 269 distributed - 154 residents responded (57% response rate)
    - 51% feel that motorists are driving too fast.
    - 35 % supported a traffic-calming plan.
  - Residents residing on Riverside Drive:
    - 69% feel speeding is still a problem.
    - 42% were in favour of implementing some sort of traffic calming plan.
  - Residents residing on surrounding streets:
    - 35% feel speeding is still a problem.
    - 30% were in favour of implementing some sort of traffic calming plan.
- 18. **March 11, 1999, Speed Summary 800 Block (7 day)**
  - NB Daily Average Count data unusable, 64.3 km/h (85<sup>th</sup> Percentile)
  - SB Daily Average Count data unusable, 65.1 km/h (85<sup>th</sup> Percentile)
- 19. **September 27, 1999, Speed Summary 800 Block (7 day)**
  - NB Daily Average : Count = 1202, 65.5 km/h (85<sup>th</sup> Percentile)
  - SB Daily Average : Count = 1172, 67.7 km/h (85<sup>th</sup> Percentile)
- 20. **November 30, 1999, Speed Summary 800 Block (7 day)**
  - NB Daily Average : Count = 1045
  - SB Daily Average : Count = 1057
  - NB/SB 85<sup>th</sup> Percentile = 63.4 km/h

21. **August 23, 1999, Traffic Calming Policy approved**
  - District Council approved Traffic Calming Policy entitled Neighbourhood Traffic Calming Program & Procedures (Policy # 11-8620-1)
22. **January 2001, appointment of Consultant**
  - Context Research Ltd. appointed by District to facilitate Community liaison and to assist in the development of a Traffic Calming Strategy.
23. **February 27, 2001, start up meeting**
  - Meeting held at Ray Burn's home with core residents, Context Research and District Staff.
24. **February 22, 2001, Speed Summary 600 Block (7 day)**
  - NB Daily Average Count = 2098
  - SB Daily Average Count = 2108
  - NB/SB 85<sup>th</sup> Percentile = 57.6 km/h
25. **February 22, 2001, Speed Summary 800 Block (7 day)**
  - NB Daily Average Count = 1096
  - SB Daily Average Count = 1084
  - NB/SB 85<sup>th</sup> Percentile = 64.5 km/h
26. **February 22, 2001, Traffic Count Grantham East of bridge (7 day)**
  - EB Daily Average Count = 1143
  - WB Daily Average Count = 1078
27. **March 2, 2001, Speed Summary 1600 Block (7 day)**
  - NB Daily Average Count = 616
  - SB Daily Average Count = 618
  - NB/SB 85<sup>th</sup> Percentile = 61.4 km/h

**ATTACHMENT 2**

**SUMMARY OF TRAFFIC COUNTS**

**600 BLOCK - BETWEEN GRANTHAM AND MSP**

<b>DATE</b>	<b>NB Volume (veh/day)</b>	<b>NB - 85% speed (km/h)</b>	<b>SB Volume (Veh/day)</b>	<b>SB - 85% speed (km/h)</b>	<b>2-way Volume (Veh/day)</b>
Feb 2001	2098	57.6	2108	57.6	4206

**800 BLOCK - JUST NORTH OF GRANTHAM**

<b>DATE</b>	<b>NB Volume (veh/day)</b>	<b>NB - 85% speed (km/h)</b>	<b>SB Volume (Veh/day)</b>	<b>SB - 85% speed (km/h)</b>	<b>2-way Volume (Veh/day)</b>
March 1999		64.3		65.1	
Sept 1999	1202	65.5	1172	67.7	2374
Nov 1999	1045	63.4	1057	63.4	2102
Feb 2001	1096	64.5	1084	64.5	2180

**1600/1700 BLOCK - NEAR SWINBURNE**

<b>DATE</b>	<b>NB Volume (veh/day)</b>	<b>NB - 85% speed (km/h)</b>	<b>SB Volume (Veh/day)</b>	<b>SB - 85% speed (km/h)</b>	<b>2-way Volume (Veh/day)</b>
Nov 1995	566	57.6	499	57.8	1065
March 1997	523	60.4	580	63.9	1103
Feb 2001	616	61.4	618	61.4	1234

**ATTACHMENT 3**

**APPLYING TRAFFIC CALMING POLICY**

**LOCAL ROADS**

<b>CRITERIA</b>	<b>POINTS (Possible Range)</b>	<b>BASIS FOR POINT ASSIGNMENT</b>
Speed	0 to 25	85 <sup>th</sup> percentile traffic speeds more than 5 km/h above the posted speed limit. (i.e. 5 points for every 1 km/h over 55 km/h)
Volume	0 to 25	Average daily traffic volumes (1 point for every 100 vehicles)
Total Possible Points	50	A Local Road needs a minimum of 25 points to qualify for physical traffic calming devices.

The following table summarises the results of our findings from the traffic study conducted in February, 2001.

**800 Block: Just North of Grantham**

<b>CRITERIA</b>	<b>ASSIGNED POINTS</b>	<b>RESULTS FOR RIVERSIDE DRIVE - 800 Block</b>
Speed	47.5	Actual 85 <sup>th</sup> percentile speed = 64.5 km/h. 9.5 km/h over 55km/h = 9.5x5 = 47.5 points
Volume	22	Average daily traffic volume = 2180 (2-way) 2180/100 = 22 points
Total Points	69.5	The minimum number of points is greater than 25.

**1700 Block: Near Swinburne**

<b>CRITERIA</b>	<b>ASSIGNED POINTS</b>	<b>RESULTS FOR RIVERSIDE DRIVE - 1700 Block</b>
Speed	32	Actual 85 <sup>th</sup> percentile speed = 61.4 km/h 6.4 km/h over 55km/ = 6.5x5 = 32 points
Volume	12	Average daily traffic volume = 1234 (2-way) 1234/100 = 12 points
Total Points	44	The minimum number of points is greater than 25.



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**COLLECTOR ROADS**

<b>CRITERIA</b>	<b>POINTS (Possible Range)</b>	<b>BASIS FOR POINT ASSIGNMENT</b>
Speed	0 to 25	85 <sup>th</sup> percentile traffic speeds more than 5 km/h above the posted speed limit. (i.e. 5 points for every 2 km/h over 55 km/h)
Volume	0 to 25	Average daily traffic volumes (1 point for every 200 vehicles)
Total Possible Points	50	A Collector Road needs a minimum of 25 points to qualify for physical traffic calming devices.

**600 Block: From Mount Seymour Parkway to Grantham**

<b>CRITERIA</b>	<b>ASSIGNED POINTS</b>	<b>RESULTS FOR RIVERSIDE DRIVE - 600 Block</b>
Speed	6.5	Actual 85 <sup>th</sup> percentile speed = 57.6km/h 2.6 km/h over 55km/h = $(2.6/2) \times 5 = 6.5$ points
Volume	21	Average daily traffic volume = 4206 (2-way) $4206/200 = 21$ points
Total Points	27.5	The minimum number of points is greater than 25.