

**Minutes – Standing Policy Committee on Infrastructure Renewal and Public Works –
April 2, 2019**

REPORTS

**Item No. 11 Traffic Study – Keslar Road
(Waverley West Ward)**

STANDING COMMITTEE DECISION:

The Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Winnipeg Public Service and approved the following:

1. That two speed tables on Keslar Road between Wayfield Drive (north) and Wayfield Drive (south) be installed.
2. That all-way stop control be installed at the intersection of Keslar Road and Lee Boulevard.
3. That the Winnipeg Public Service investigate the need for a Reduced-Speed School Zone on Keslar Road due to the new Richmond Montessori Learning Centre that recently began operating out of Southlands Community Church, and if warranted, initiate a revision to the City of Winnipeg By-law 76/2014 – Reduced-Speed School Zones.
4. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

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DECISION MAKING HISTORY:

Moved by Councillor Browaty,

That the recommendation of the Winnipeg Public Service be concurred in.

Carried

STANDING COMMITTEE DECISION:

On January 8, 2019, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Assiniboia Community Committee and directed the Winnipeg Public Service to expand the traffic study previously approved on June 26, 2018, by adding the following recommendation 4:

4. Three-way stop sign at Keslar Road and Lee Boulevard is warranted.

STANDING COMMITTEE RECOMMENDATION:

On June 26, 2018, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Riel Community Committee and directed the Winnipeg Public Service to conduct a traffic study to determine if the following are warranted:

1. Traffic calming measures for Keslar Road.
2. Three-way stop sign at Keslar Road and Langley Bay.
3. Three-way stop sign at Keslar Road and Bairdmore Blvd.,

and report back to the Standing Committee within 180 days.

COMMUNITY COMMITTEE RECOMMENDATION:

On June 5, 2018, the Riel Community Committee passed the following motion:

WHEREAS the new community of Fairfield Park has experienced extensive development over the past four years and is using Keslar Road as a cut through connection to access ,

AND WHEREAS the new communities of Waverley West have limited access points across Waverley Street and use Lee Boulevard and Keslar Road as cut through roads;

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DECISION MAKING HISTORY (continued):

COMMUNITY COMMITTEE RECOMMENDATION (continued):

AND WHEREAS Fairfield Park is on Keslar Road, and as the community is growing, the use of the park is increasing;

AND WHEREAS Southlands Community Church has recently incorporated a Montessori Learning Centre into the facility, and many families walk to the learning center;

AND WHEREAS the volume and speed of traffic appears to have increased on Keslar Road;

THEREFORE BE IT RESOLVED that the Standing Policy Committee on Infrastructure Renewal and Public Works request the Winnipeg Public Service to conduct a traffic study to determine if traffic calming measures for Keslar Road, and a three-way stop sign at Keslar Road and Langley Bay are warranted.

ADMINISTRATIVE REPORT

Title: Traffic Study – Keslar Road (Waverley West Ward)

Critical Path: Standing Policy Committee on Infrastructure Renewal and Public Works

AUTHORIZATION

Author	Department Head	CFO	CAO
D. Patman, P.Eng.	J. Berezowsky	P. Olafson, Acting CFO	D. McNeil

EXECUTIVE SUMMARY

A traffic study was conducted on Keslar Road between Lee Boulevard and Bairdmore Boulevard to evaluate the need for traffic calming measures and for all-way stop control at three intersections on the corridor.

Results suggest that traffic calming measures should be considered for the north segment of Keslar Road due to elevated speeds. Traffic calming measures are *not* warranted on the south segment of Keslar Road, as the traffic study found there to be good compliance with the 50 km/h speed limit. Two speed tables are recommended for Keslar Road near the Southlands Community Church. All-way stop control is recommended for the intersection of Keslar Road and Lee Boulevard as the warrant was met. The intersections of Keslar Road with Langley Boulevard and Bairdmore Boulevard did not meet the warrant for all-way stop control.

RECOMMENDATIONS

1. That two speed tables on Keslar Road between Wayfield Drive (north) and Wayfield Drive (south) be installed.
2. That all-way stop control be installed at the intersection of Keslar Road and Lee Boulevard.
3. That the Winnipeg Public Service investigate the need for a Reduced-Speed School Zone on Keslar Road due to the new Richmond Montessori Learning Centre that recently began operating out of Southlands Community Church, and if warranted, initiate a revision to the City of Winnipeg By-law 76/2014 – Reduced-Speed School Zones.
4. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

REASON FOR THE REPORT

On June 26, 2018, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred with the recommendation of the Riel Community Committee and directed the

Winnipeg Public Service to conduct a traffic study to determine if the following are warranted and report back to the Standing Policy Committee at the April 2, 2019 meeting:

1. Traffic calming measures on Keslar Road
2. Three-way stop sign at Keslar Road and Langley Bay
3. Three-way stop sign at Keslar Road and Bairdmore Bay

Further, on January 8, 2019, the Standing Policy Committee concurred with the recommendation of the Assiniboia Community Committee and directed the Winnipeg Public Service to expand the traffic study previously approved on June 26, 2018 by adding the following item:

4. Determine if three-way stop sign at Keslar Road and Lee Boulevard is warranted.

IMPLICATIONS OF THE RECOMMENDATIONS

The cost estimate to install two speed tables on Keslar Road and all-way stop control at the intersection of Lee Boulevard is \$12,600. Of this, \$2,600 is for signage and pavement markings and annual maintenance cost of \$300 can be covered by Traffic Services' existing operating budget. All-way stop control at Keslar Road and Lee Boulevard will be installed in 2019. The \$10,000 cost for speed tables will be added to the list of projects in the Traffic Engineering Improvement Program and will be constructed in 2019; this list is prioritized annually based on available budgets.

HISTORY/DISCUSSION

BACKGROUND AND STUDY AREA

Keslar Road is a two-lane, undivided, residential collector street in Waverley West. Sidewalks are provided on both sides of Keslar Road and parking is permitted on the west side of the street. The speed limit is 50 km/h and the average weekday traffic volume on Keslar Road is approximately 4,300 vehicles per day, which is typical for a collector street.

Keslar Road, Lee Boulevard, and Bairdmore Boulevard form a network of collector streets in the neighbourhood that provide access to Pembina Highway to the east, and Waverley Street to the west. Residential development in the area began in the early 2000s and is ongoing. In the past few years, development has increased in the Fairfield Park area, particularly on Lee Boulevard where there are new multi-family residential units and a new high school. Residents have expressed concerns regarding increased traffic volumes and speeds on Keslar Road due to increased development in the neighbourhood.

Keslar Road is a transit route for the 183 – Richmond West Express and S430 – Vincent Massey routes. Southlands Community Church and a play structure are located on Keslar Road. Richmond Montessori Learning Centre recently began operating out of Southlands Community Church.

TRAFFIC STUDY

Traffic Calming Measures on Keslar Road:

Speed data was collected using pneumatic tubes at two locations on Keslar Road: (1) 20 metres north of Langley Bay; and (2) south of Wayfield Drive in front of 55 Keslar Road. Data was collected for a one-week period in November 2018.

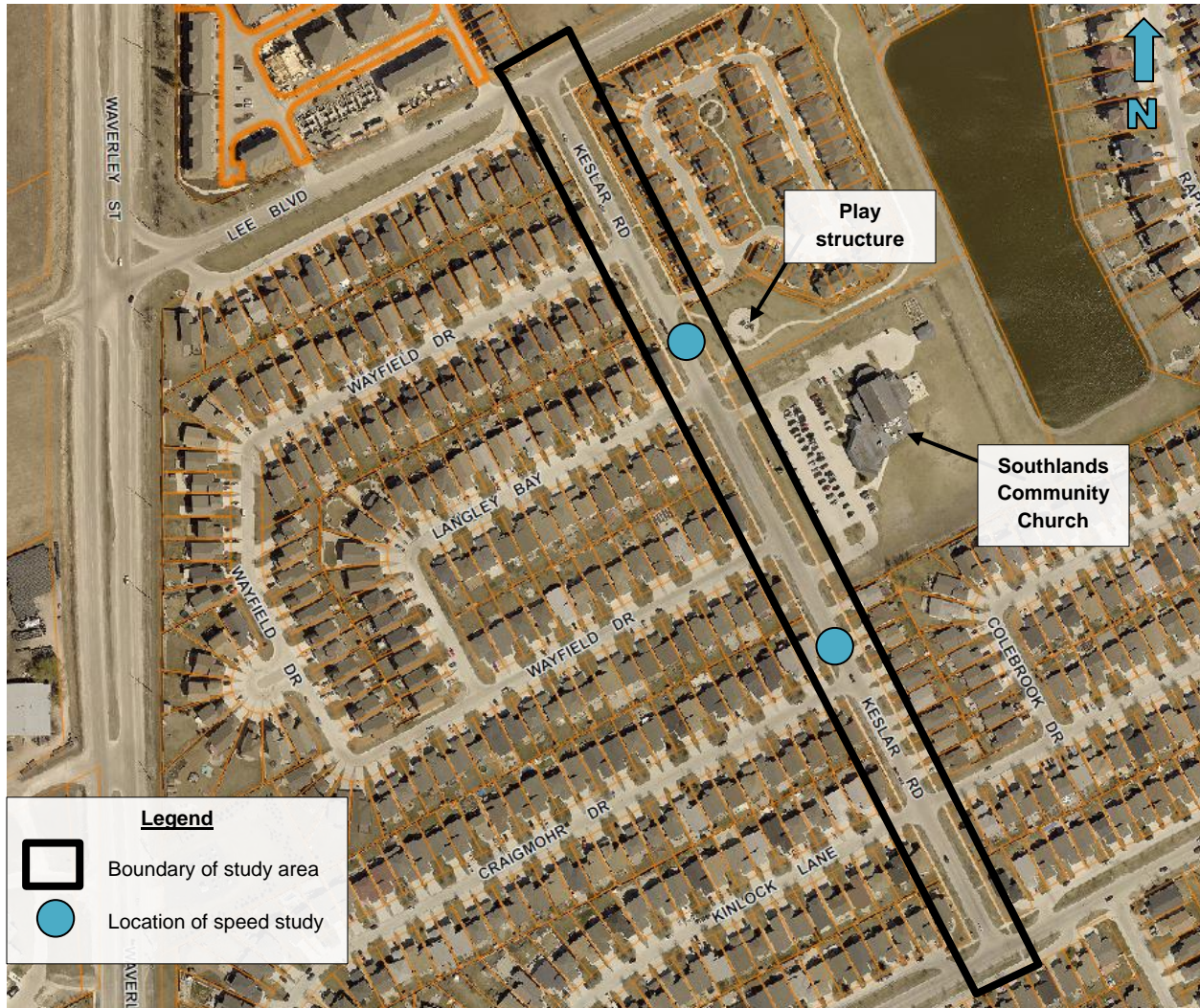


Figure 1: Location of Speed Studies (Image source: iView)

The 85th percentile speed reflects the speed at or below which 85 percent of motorists operate their vehicle. When the speed limit is close to or equal to the 85th percentile speed, the speed limit is considered credible and respected by drivers.

The results of the speed study on Keslar Road are shown in Table 1 and Table 2. The results suggest that traffic calming measures should be considered for the north segment of Keslar Road due to elevated speeds. Traffic calming measures are not warranted on the south segment of Keslar Road, as there is good compliance with the 50 km/h speed limit.

North of Langley Bay, the 85th percentile speed for combined travel directions on Keslar Road is 56 km/h and the average speed is 45 km/h. A significant proportion of vehicles travel above the 50 km/h speed limit: 19.4 percent of vehicles travel above 55 km/h and 11.3 percent travel above 60 km/h. These results suggest that traffic calming measures are warranted on the north section of Keslar Road.

South of Wayfield Drive, the 85th percentile speed for combined travel directions on Keslar Road is 50 km/h and the average speed is 44 km/h. These results indicate there is good compliance with the 50 km/h speed limit and traffic calming measures are not warranted on this section. At both study locations, traffic speeds of northbound vehicles were higher than speeds of southbound vehicles. This was most notable in front of the play structure on Keslar Road, where the 85th percentile speed for northbound traffic was 60 km/h and the 85th percentile speed for southbound traffic was 45 km/h.

Table 1: Speed Study Results for Combined Northbound and Southbound Traffic on Keslar Road (Data from November 16 – 23, 2018)

Metric	Location	
	<i>North of Langley Bay, in front of play structure</i>	<i>South of Wayfield Drive, in front of 55 Keslar Road</i>
Speed Limit	50 km/h	50 km/h
85 th Percentile Speed	56 km/h	51 km/h
Average Speed	45 km/h	44 km/h
Percent of Vehicles traveling above 55 km/h	19.4%	8%
Percent of Vehicles traveling above 60 km/h	11.3%	2.4%
Total Vehicles Studied	29,410	33,731

Table 2: Speed Study Results by Direction on Keslar Road (Data from November 16 - 23, 2018)

Metric	Location	
	<i>North of Langley Bay, in front of play structure</i>	<i>South of Wayfield Drive, in front of 55 Keslar Road</i>
Northbound 85 th Percentile Speed	60 km/h	52 km/h
Southbound 85 th Percentile Speed	45 km/h	51 km/h
Combined Northbound and Southbound 85 th Percentile Speed	56 km/h	51 km/h

Two speed tables are recommended on Keslar Road between Wayfield Drive (north) and Wayfield Drive (south). This section is in front of the play structure and church, where pedestrian activity is elevated and speeding concerns have been validated with data.

A speed table is an elongated speed hump with a flat-topped section that is long enough to raise the entire wheelbase of a vehicle. A speed table calms traffic by creating a vertical deflection in the roadway that causes discomfort for drivers traveling at higher speeds and leads them to reduce their speed. According to the Institute of Transportation Engineers (ITE) and the Transportation Association of Canada's (TAC) *Canadian Guide to Traffic Calming*, speed tables can reduce 85th percentile speeds between 6 km/h and 13 km/h. For collector streets, speed tables are preferred over speed humps because their geometry is more accommodating for transit and emergency services vehicles. Speed tables are being piloted on various residential collector streets in Winnipeg while the City's Traffic Calming and Community Traffic Management Technical Guideline update is underway. Placement of speed tables should consider the proximity of intersections, transit stops, private approaches, fire hydrants, and street draining infrastructure.

A design and estimate was also prepared for curb extensions to act as additional traffic calming measures in front of the play structure and church. However, curb extensions are not recommended at this time due to a cost estimate in excess of \$100,000. The Public Works Department will monitor speeds on Keslar Road after the speed tables are installed. If speeding issues persist, curb extensions and other traffic calming measures will be considered.

City of Winnipeg Technical Guideline for Stop Signs:

The City's Technical Guideline for stop signs was referenced to evaluate the need for all-way stop control on Keslar Road at Langley Bay, Bairdmore Boulevard, and Lee Boulevard. The Guideline specifies that stop signs may be installed at the intersection of one or more collector streets provided that:

- In the highest eight-hour average weekday period, 4,000 vehicles approach the intersection with at least 1,600 vehicles and pedestrians approaching on the minor street with an average delay to traffic in excess of 30 seconds; and
- At least 20% of the total intersection vehicle volume approaches on the minor street.

Or,

- More than 15 right angle or left with opposing through collisions have been reported at the intersection in a three-year period.

Three-way stop sign at Keslar Road and Langley Bay:

The intersection of Keslar Road and Langley Bay does not meet the above criteria therefore, all-way stop control is not warranted at this time.

A 12-hour turning movement count was conducted at Keslar Road and Langley Bay on October 30th, 2018. In the highest eight-hour average weekday period, 2,815 vehicles approached the intersection, with 81 from the minor street. The vehicle volume approaching from the minor street amounts to only three percent of the total intersection vehicle volume approaches on the minor street. Additionally, there have been no reported collisions at this intersection in the past three years.

Three-way stop sign at Keslar Road and Bairdmore Boulevard:

The intersection of Keslar Road and Bairdmore Boulevard does not meet the above criteria therefore, all-way stop control is not warranted at this time.

A 12-hour turning movement count was conducted at Keslar Road and Bairdmore Boulevard on October 30th, 2018. In the highest eight-hour average weekday period, 5,406 vehicles approached the intersection with 1,129 vehicles approaching on the minor street. The vehicle volume approaching from the minor street amounts to 21 percent of the total intersection vehicle volume. There have been two right angle collisions at this intersection within the past three years.

Traffic volumes at the intersection of Keslar Road and Bairdmore Boulevard are close to meeting the warrant for all-way stop control, however, since only 1,129 approach the intersection on the minor street during the highest eight-hour average weekday period, all-way stop control is not considered warranted at this time. The warrant requires that at least 1,600 vehicles approach from the minor street during the highest eight-hour average weekday period.

Three-way stop sign at Keslar Road and Lee Boulevard:

All-way stop control is considered warranted at Keslar Road and Lee Boulevard.

An 11-hour turning movement count was conducted at Keslar Road and Lee Boulevard May 4, 2015. In the highest eight-hour average weekday period, 3,619 vehicles approached the intersection with 1,467 vehicles approaching on the minor street. The vehicle volume approaching from the minor street amounts to 41 percent of the total intersection vehicle volume. Additionally, there have been five right angle collisions at this intersection within the past three years.

Since the traffic count was conducted in 2015, several multi-family residential developments and a high school have developed on Lee Boulevard. Based on the new developments, it is estimated that traffic volumes have increased to the point necessary to warrant all-way stop control. Therefore, stop signs on Lee Boulevard at Keslar Road are recommended.

REDUCED SPEED SCHOOL ZONE ON KESLAR ROAD

The Public Works Department has become aware that the Richmond Montessori Learning Centre has recently begun operating out of the Southlands Community Church and may be offering programming that meets the criteria for a Reduced-Speed School Zone on Keslar Road. The Public Works Department will be investigating this further and if necessary, initiating a revision to the City of Winnipeg By-law 76/2014 – Reduced-Speed School Zones.



Figure 2: Recommendations for Keslar Road (Image source: iView)

FINANCIAL IMPACT

Financial Impact Statement

Date: **March 14, 2019**

Project Name:

First Year of Program 2019

Traffic Study – Keslar Road (Waverley West Ward)

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Capital					
Capital Expenditures Required	\$ 10,430	\$ -	\$ -	\$ -	\$ -
Less: Existing Budgeted Costs	10,430	-	-	-	-
Additional Capital Budget Required	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Funding Sources:					
Debt - Internal		\$ -	\$ -	\$ -	\$ -
Debt - External	-	-	-	-	-
Cash to Capital					
Reserves, Equity, Surplus	-	-	-	-	-
Other - Province of Manitoba					
Total Funding	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Total Additional Capital Budget Required	<u>\$ -</u>				
Total Additional Debt Required	<u>\$ -</u>				
Current Expenditures/Revenues					
Direct Costs	\$ 2,600	\$ 613	\$ 613	\$ 613	\$ 613
Less: Incremental Revenue/Recovery	430	-	-	-	-
Net Cost/(Benefit)	<u>\$ 2,170</u>	<u>\$ 613</u>	<u>\$ 613</u>	<u>\$ 613</u>	<u>\$ 613</u>
Less: Existing Budget Amounts	2,170	613	613	613	613
Net Budget Adjustment Required	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Additional Comments:					
<p>Recommendation 1 - Total estimated cost for the speed tables including overheads is \$10,430.00 and will be funded by the 2019 Traffic Engineering Improvement - Various Locations Program (Public Works Capital Project # 1831000119). Recoveries represent the Department Transportation Administration and Corporate Interest Overheads. Direct costs represent the Debt and Finance charges on the internal debt funding.</p> <p>Recommendation 2 - The cost of \$2,600.00 for signage and pavement markings and annual maintenance cost of \$300.00 will be funded from the Traffic Services operating budget.</p> <p>Recommendation 3 - A cost estimate to investigate the need for a reduced speed school zone has not been prepared. Any cost to investigate the need for a reduced school zone will not incur any capital cost as this is the regular duty of the Transportation Division.</p>					

"Original Sigend by J. Ruby, CPA, CA"

Jason Rudy, CPA, CA

Manager of Finance & Administration

CONSULTATION

This Report has been prepared in consultation with:

N/A

OURWINNIPEG POLICY ALIGNMENT

The Sustainable Transportation Direction Strategy developed as part of OurWinnipeg forms the policy framework for the Transportation Master Plan (TMP). Sustainable Transportation identified a vision and five Key Strategic Goals which are critical to achieving a balanced and sustainable transportation system for Winnipeg. These goals form the basis for the TMP and the directions and strategies contained within it:

1. A transportation system that is dynamically integrated with land use;
2. A transportation system that supports active, accessible and healthy lifestyle options;
3. A safe, efficient and equitable transportation system for people, goods and services;
4. Transportation infrastructure that is well maintained
5. A transportation system that is financially sustainable

The recommendations within this report are consistent with the Key Strategic Goals.

SUBMITTED BY

Department: Public Works
Division: Transportation
Prepared by: R. Peterniak, M.Sc., P.Eng, Community Traffic Engineer
Date: March 18, 2019