

Presented To:	Traffic Committee
Presented:	Friday, Jun 17, 2011
Report Date	Friday, May 27, 2011
Type:	Managers' Reports

Request for Decision

Maximum Posted Speed Limit - Municipal Road 80, Hanmer

Recommendation

That the speed limit on Municipal Road 80 from Yorkshire Drive to Dominion Drive be reduced to 70 km/h, and;

That a by-law be passed by City Council to amend the Traffic and Parking By-Law 2010-1 in the City of Greater Sudbury to implement the recommended change all in accordance with the report from the General Manager of Infrastructure Services dated May 27, 2011.

Background:

At the March 21, 2011 Traffic Committee meeting, a request from Ward 5 Councillor, Ron Dupuis, to review the posted speed limit on Municipal Road 80 (M.R. 80) from Yorkshire Drive to Dominion Drive was approved for study.

At the October 13, 2010 meeting, City Council adopted the use of the Canadian Guidelines for Establishing Posted Speed Limits, published by the Transportation Association of Canada, for evaluating posted speeds on arterial and major collector roadways. These guidelines assess appropriate posted speed limits based primarily on the classification, function and physical characteristics of a roadway.

This segment of M.R. 80 is located in the former Town of Valley East and is classified as a primary arterial roadway due to its importance in the City's road network. It is constructed to a rural standard with two (2) lanes for northbound traffic, two (2) lanes for southbound traffic and a two-way centre turning lane. On the west side of the roadway there is an off-road paved trail that is used by both cyclists and pedestrians (**see Exhibit 'A'**). The existing speed limit through this section of M.R. 80 is 80 km/h. The speed limit is reduced to 60 km/h south of Yorkshire Drive.

Recently, a parcel of land on the east side of M.R. 80, between Yorkshire Drive and Josephine Drive, has been rezoned to permit a large scale commercial development. Through the rezoning process it was identified that this commercial development will require a full movement driveway south of Carol Street, a right-in only driveway south of John Street and a set of traffic signals at the John Street intersection. The Traffic Impact Study prepared in support of the development indicates that traffic patterns will change with

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Division Review

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Recommended by the Department

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Recommended by the C.A.O.

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development of the mall, and “it is likely that conditions will warrant extending the 60 km/h zone northward past the New Valley Centre. The City should carry out a review of the speed limit when this development takes place”.

Due to this pending commercial development, staff evaluated M.R. 80 as two (2) different segments. The first segment is from Yorkshire Drive to Josephine Drive and the second is from Josephine Drive to Dominion Drive. Staff further evaluated the Yorkshire Drive to Josephine Drive based on the current conditions and the future conditions that included the proposed commercial development.

Applying the current physical characteristics of each segment to the new Canadian Guidelines and using a functional classification of a “four lane rural undivided major arterial” yields a total risk score of 53 and a recommended posted speed limit of 70 km/h for the section from Josephine Drive to Dominion Drive (**see Exhibit ‘B’**). The segment from Yorkshire Drive to Josephine Drive resulted in a total risk score of 43 and a recommended posted speed limit of 80 km/h (**see Exhibit ‘C’**). Although both segments of road are similarly constructed, the Josephine Drive to Dominion Drive segment scored a higher risk score and a lower recommended posted speed limit due to the high number of residential driveways that exist on the east side of the roadway.

Applying the future physical characteristics of the Yorkshire Drive to Josephine Drive segment, that includes full development of the New Valley Centre, to the new Canadian Guidelines and using a functional classification of a “four lane rural undivided major arterial” yields a total risk score of 51 and a recommended posted speed limit of 70 km/h (**see Exhibit ‘D’**). The increased risk score for this segment is due to the future traffic signals that will be installed and the additional driveways that will be required by the commercial development.

Staff also completed a speed study in this area of M.R. 80 on June 10, 2010. The study was conducted 200 metres north of Yorkshire Drive and recorded the speeds of over 31,000 vehicles. The average speed recorded was 82 km/h while the 85th percentile speed was 91 km/h. The 85th percentile speed is the speed at or below which 85 percent of drivers are travelling and is generally accepted as a good indicator of an appropriate speed limit.

A second speed study was conducted in the 60 km/h zone, 200 metres south of Isabelle Street. The results of the study show that the average speed was 75 km/h and the 85th percentile speed was 84 km/h.

Although the Canadian Guidelines recommended posted speed limit, based on current conditions, from Yorkshire Drive to Josephine Drive is 80 km/h, staff recommends the maximum speed limit be reduced to 70 km/h for the entire section from Yorkshire Drive to Dominion Drive. This 70 km/h zone will provide a transition between the 80 km/h speed limit north of Dominion Drive and 60 km/h speed limit south of Yorkshire Drive. It will also be appropriate for the future commercial development proposed for the area. Based on the speed studies, significant police enforcement will be required to bring operating speeds more closely in line with the recommended speed limit of 70 km/h.

An amendment to the City's Traffic and Parking By-Law 2010-1 is required to implement the recommended change to reduce the speed on Municipal Road 80 from Yorkshire Drive to Dominion Drive to 70 km/h.

EXHIBIT: A

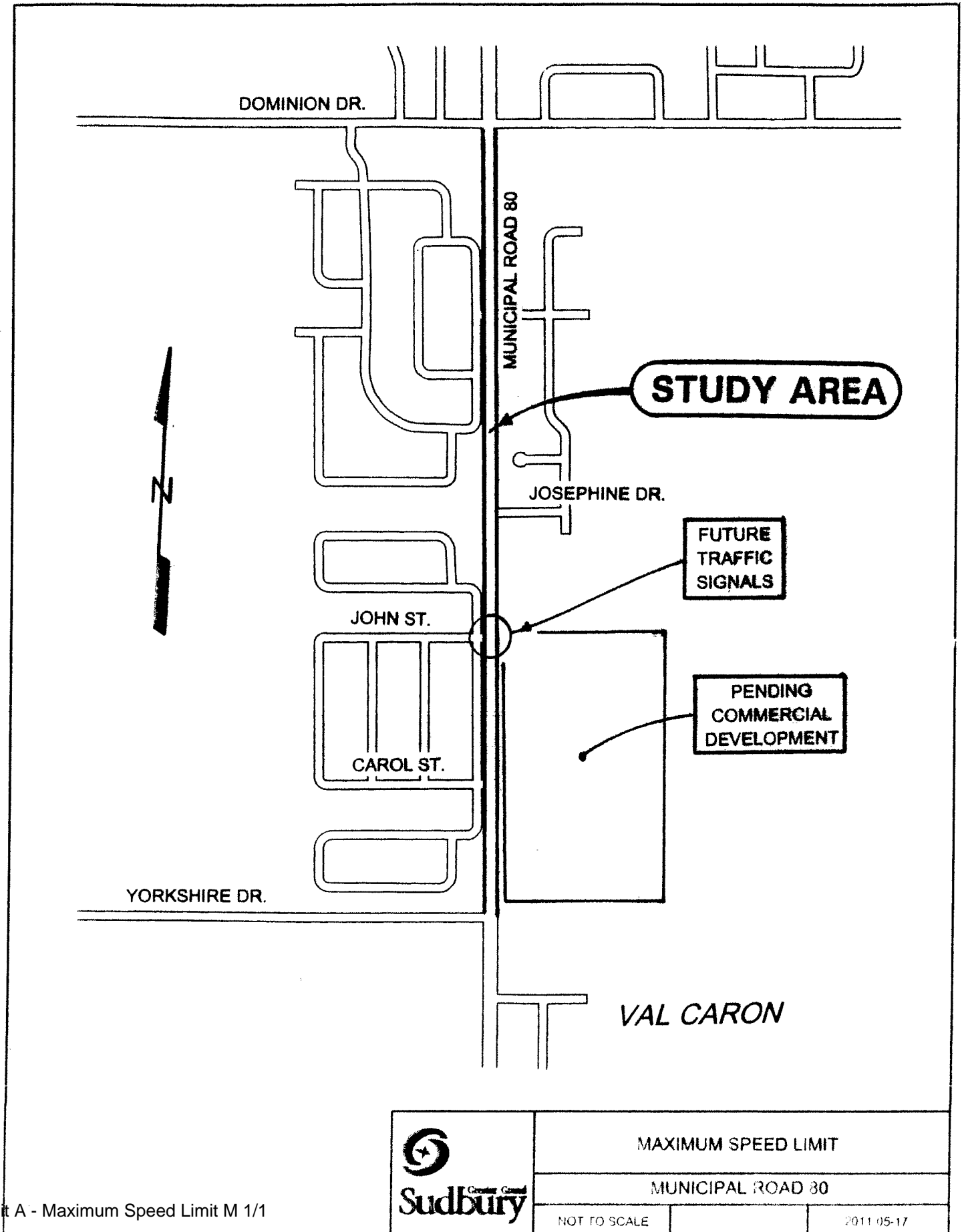


EXHIBIT: B



Automated Speed Limit Guidelines FORM A - Automated Speed Limit Guidelines Spreadsheet

Version:
10-Apr-09

Name of Corridor:	Municipal Road 80		
Segment Evaluated:	Josephine Drive	to	Dominion Drive
Geographic Region:	Valley East		
Road Agency:	City of Greater Sudbury		
Road Classification:	Arterial	Length of Corridor:	810 m
Urban / Rural:	Rural	Design Speed: (Required for Freeway, Expressway, Highway)	km/h
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	80 km/h
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)	91.22 km/h
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)	

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	3
A2	GEOMETRY (Vertical)	Lower	3
A3	AVERAGE LANE WIDTH	Medium	6
B	ROADSIDE HAZARDS	Medium	6
C1	PEDESTRIAN EXPOSURE	Lower	2
C2	CYCLIST EXPOSURE	Lower	3
D	PAVEMENT SURFACE	Lower	3
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	Number of Occurrences	12
	STOP controlled intersection	0	
	Signalized intersection	1	
	Roundabout or traffic circle	0	
	Crosswalk	0	
	Active, at-grade railroad crossing	0	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	Number of Occurrences	15
	Left turn movements permitted	25	
	Right-in / Right-out only	0	
E3	NUMBER OF INTERCHANGES	Number of Occurrences	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	N/A	0

Total Risk Score:

53

Recommended Posted
Speed Limit (km/h):

As determined by road characteristics

70

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:



Automated Speed Limit Guidelines FORM A - Automated Speed Limit Guidelines Spreadsheet

Version:
10-Apr-09

Name of Corridor:	Municipal Road 80 (current conditions)		
Segment Evaluated:	Yorkshire Drive	to	Josephine Drive
Geographic Region:	Valley East		
Road Agency:	City of Greater Sudbury		
Road Classification:	Arterial	Length of Corridor:	850 m
Urban / Rural:	Rural	Design Speed: (Required for Freeway, Expressway, Highway)	km/h
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	80 km/h
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)	91.22 km/h
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)	

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	3
A2	GEOMETRY (Vertical)	Lower	3
A3	AVERAGE LANE WIDTH	Medium	6
B	ROADSIDE HAZARDS	Higher	9
C1	PEDESTRIAN EXPOSURE	Medium	4
C2	CYCLIST EXPOSURE	Lower	3
D	PAVEMENT SURFACE	Lower	3
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	Number of Occurrences	9
	STOP controlled intersection	0	
	Signalized intersection	0	
	Roundabout or traffic circle	0	
	Crosswalk	0	
	Active, at-grade, railroad crossing	0	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	Number of Occurrences	3
	Left turn movements permitted	4	
	Right-in / Right-out only	0	
E3	NUMBER OF INTERCHANGES	Number of Occurrences	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	N/A	0

Total Risk Score:

43

Recommended Posted
Speed Limit (km/h):

As determined by road characteristics

80

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:



Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

EXHIBIT: D

Version:
10-Apr-09

Name of Corridor:	Municipal Road 80 (with future commercial development)		
Segment Evaluated:	Yorkshire Drive	to	Josephine Drive
Geographic Region:	Valley East		
Road Agency:	City of Greater Sudbury		
Road Classification:	Arterial	Length of Corridor:	850 m
Urban / Rural:	Rural	Design Speed: (Required for Freeway, Expressway, Highway)	km/h
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	80 km/h
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)	91.22 km/h
# Through Lanes Per Direction:	2+ lanes	Policy: (Maximum Posted Speed)	

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	3
A2	GEOMETRY (Vertical)	Lower	3
A3	AVERAGE LANE WIDTH	Medium	6
B	ROADSIDE HAZARDS	Higher	9
C1	PEDESTRIAN EXPOSURE	Medium	4
C2	CYCLIST EXPOSURE	Lower	3
D	PAVEMENT SURFACE	Lower	3
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	Number of Occurrences	16
	STOP controlled intersection	0	
	Signalized intersection	1	
	Roundabout or traffic circle	0	
	Crosswalk	0	
	Active, at-grade railroad crossing	0	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	Number of Occurrences	4
	Left turn movements permitted	5	
	Right-in / Right-out only	1	
E3	NUMBER OF INTERCHANGES	Number of Occurrences	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	N/A	0

Total Risk Score:

51

Recommended Posted
Speed Limit (km/h):

As determined by road characteristics

70

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments: