

Warrant for Implementing a Permanent 50km/h Maximum Speed Limit on Arterial Roads
Wilson Heights Boulevard from Model Avenue to Sunbeam Avenue

The Warrants:

A permanent 50 km/h maximum speed limit may be implemented on an arterial road where **one of the following two warrants A and B is met.**

A. 85th Percentile Speed is less than 60 km/h.

The rationale for this warrant is based on safety considerations, as illustrated in the adjacent diagram. Risk increases with the deviation of a given driver speed from the speed of the main stream of traffic. If all drivers travel at the same speed, risk is minimal (see diagram on the side). As some motorists drive faster or slower, risk increases exponentially.

Therefore the 85th percentile is the safest speed and where risk is at its lowest.

If the 85th Percentile speed is operating at a speed that is lower than 60 km/h, then it only makes sense that the speed limit is lowered to 50 km/h.

B. If any combination of FIVE of the following criteria were answered as YES.

1. Pedestrian And Bicycle Related Factors

<i>Result 1.a</i>	Is pedestrian activity (Age under 12) Heavy ¹ ? Or Is pedestrian activity (Age under 12) Medium ² and sidewalk setback ⁴ is less than 2.5 m? Or Is pedestrian activity (Age under 12) Light ³ and sidewalk setback is less than 0.5 m? Or Is pedestrian activity (Age OVER 12) Heavy and sidewalk setback is less than 0.5 m?	Yes / No	
		Yes / No	
		Yes / No	Yes / No
		Yes / No	
<i>1.b</i>	Is the bicycle activity (without a bike lane) High5 ?	Yes / No	Yes / No

2. Collision Related Factor Result

2	Is the Probability of Safety Improvement Index (PSI index) low? (Emphasis is on collision patterns that cannot be influenced by localized improvements)	Yes / No	Yes / No
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3. Roadway Geometry Related Factors

<i>Result 3.a</i>	Is the number of curves per kilometre with a comfortable speed less than 60 km/h (Level/rolling terrain) equals two or more?	Yes / No	Yes / No
3.b	Is the number of locations per kilometre with insufficient distance to stop safely while travelling at 60 km/h equals two or more?	Yes / No	Yes / No
3.c	Is the length of speed zone < 1 km?	Yes / No	Yes / No
3.d	Is the number of non-commercial driveways per kilometre > 30?	Yes / No	Yes / No
3.e	Is the number of low-density residential driveways per kilometre > 5?	Yes / No	Yes / No
3.f	Absence of a Centre Left-Turn Lane	Yes / No	Yes / No

4. Roadway Operations Related Factors

4. Roadway Operation Related Factors Results 4	Is the On-Street Parking activity ⁶ Medium to high?	Yes / No	Yes / No
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Overall Warrant	If any combination of <u>FIVE</u> of the above criteria were answered as <u>YES</u> .	Yes / No	Yes / No
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