Introduction

The purpose of this guideline document is to outline the inputs and parameters being considered to measure the vehicle requirement (volume) that could be used in developing a new funding approach for student transportation.

The volume requirement will be determined through a routing simulation conducted by transportation consortia calibrated to these common parameters.

Eligibility: The following criteria would be applied in the routing simulation to determine the number of students that would be considered eligible.

- **1. Distance Eligibility:** The distance between primary address to designated school that meets the distance condition set out below:
 - **a.** Primary address: One address as designated by parent/family may be residential address or other location such as childcare.
 - If primary address is different than the home address it must be within the catchment area of the student's designated school.
 - To determine distance eligibility, only one primary address per student should be used.
 - In the case of custody arrangements, multiple addresses may be used.
 - **b.** Designated school: Determined based on the primary address and the catchment area of a school as determined by the school board:
 - That is either a regular school; or
 - A program school such as French Immersion programs, Gifted, or Magnet. If the designated school is deemed to be operating at over capacity by the board, an alternate school can be assigned.
 - c. Distance condition: The distance between primary address and designated school (measured from the closest point of property line of student's primary address to property line of the designated school) is greater than the numbers noted below.

	JK/SK	Grades 1 to 8	Grades 9-12
Distance between home and school (km)	0.8	1.6	3.2

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- **2. Eligibility other than Distance:** In cases where a student does not meet the Distance Eligibility Criteria noted above, the following conditions can be applied:
 - a. Student with Special Transportation Need (STN) identified by:
 - school board (e.g., through IPRC or IEP process) as requiring transportation.
 - approved documentation such as an application/request form and/or medical note indicating a medical condition requiring transportation; or
 - student is attending a designated specialized program or approved local treatment centre.
 - **b.** Hazard Walking Conditions that may pose safety risks if students were to walk from home to school. These conditions include:
 - Multi-lane roads with higher speed limits and higher volumes of traffic.
 - Infrastructure and physical characteristics (e.g., without sidewalks and/or controlled crossings (e.g., stop sign, traffic light, crosswalk, crossing guard), body of water).
 - Railway crossings (e.g., not signaled).
 - Other safety factors identified by authorities such as law enforcement authorities.

The application of hazard conditions may reflect age of students; and specific threshold on what constitutes hazard condition may vary based on local geography and circumstances.

3. Tracking Ridership (Opt-In / Opt-Out)

To ensure that transportation planning and allocation is based on students who use transportation services, opt-in or opt-out process may be used to ensure that transportation routes are aligned to actual ridership.

- **4. Mode of Transportation:** Assigning an appropriate mode of transportation which consists of school bus, public transit, passenger vehicle can be based on several factors such as:
 - Student need such as the student requires an adapted vehicle or needs to ride alone.
 - Safety and service level such as the type of vehicle needed for road conditions of the route.
 - Availability of mode of transportation such as asset supply in a region by bus size.
 - Cost effectiveness such as relative cost of alternate modes of transportation.
 - Routing strategy such as number of runs, and available capacity on vehicles.

For non-STN secondary (Gr 9-12) students living and attending school in areas serviced by public transit, the routing simulation should assign public transit unless there is an existing route and available capacity that can accommodate these students.

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Service Standards: Outlined below are commonly used service standard parameters in transportation routing to support service levels for students and to realize efficiencies in transportation planning.

It is important to note that while each parameter may affect a particular aspect of service, combinations of parameters may yield a similar result depending on local circumstances.

5. Walk-to-Stop Distance – Maximum

The walk-to-stop distance reflects the maximum distance from home to a stop that a student will be required to walk to access transportation to school.

The common parameters would assign the following threshold to the maximum distance between home to bus stop:

	JK/SK	Gr 1-8	Gr 9-12
Maximum Walk-to-Stop Distance (km)	0.8	0.8	1.6

Several factors affect placement of stops including select locations to ensure a safe stop for boarding or space considerations for students to wait in groups.

Under certain circumstances, such as dead-end street, private driveway, or road conditions, the walk-to-stop threshold may not apply.

6. Ride Time – Maximum

Ride time is the duration in minutes of one-way home-to-school trips under typical conditions. Typical ride time specify a maximum (longest ride-time); and this maximum ride-time ranges from 60-75 minutes for JK- Gr 8 and 60 to 90 minutes for Gr 9-12.

Ride time maximum may be set by boards and consortia. Geographic circumstances such as physical distance from designated school can result in longer ride times for some students. It is expected that the ride time of the majority of students would be shorter in duration than the maximum time.

7. Load Factor Capacity for Buses

The load factor capacity reflects the number of students that can be assigned to a bus. Typically, students in grades JK to grade 6 are assigned 3 to a seat (weighted as 1) and students in grades 7 to 12 are assigned 2 to a seat (weighted at 1.5) to calculate maximum loading per bus.

The loading factor may vary for STN students depending on vehicles assigned and unique needs of these students.

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8. Arrival and Departure Windows

The time in minutes before school start or after school in which school vehicles may arrive or depart a school for dropping off or picking up students. Arrival and departure windows are impacted by supervision, particularly in the elementary panel.

9. Bell Time Optimization

To ensure that there is continuous improvement on finding efficiency opportunities in transportation planning, school boards and consortia are expected to regularly evaluate bell times to realize efficiencies and that these changes and impacts be considered at the board level for implementation.

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