

Government of Alberta ■ Transportation	DIFFERENTIAL SPEED ZONES		<i>Issued: JUL 2011</i>
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RECOMMENDED PRACTICES	PART	TRAFFIC OPERATIONS	
	SECTION		
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General

Highways typically share the same posted speed limit for both directions of travel on a given segment. When a highway has different speed limits for each direction of travel, the area where this difference exists is called a differential speed zone.

Differential speed zones are rarely used because the highway conditions often support the same speed limit for both directions, and it is more difficult for motorists joining the highway to accurately judge gaps in traffic approaching at two different speeds. Additionally, as speed limits are typically the same for both directions, motorists may incorrectly assume that the speed limit in one direction matches the speed limit in the other direction within a differential speed zone. There are currently fewer than half a dozen locations in the province with a legal differential speed zone.

However, there are some situations where motorists may perceive a differential speed limit is justified. For example, at the outer limits of some Alberta communities there may be a public perception that it is safe to accelerate to highway speed as soon as a vehicle leaves the built-up area. This perception may also exist at some rural signalized intersections as motorists may feel it is safe to return to highway speed immediately after exiting the intersection.

Maintaining a reduced speed limit in these situations can lead to increased travel times and driver frustration.

This Recommended Practice outlines the situations where it is safe to use differential speed limits.

Standard

Differential speed zones may be considered on divided highways where the median is wide enough that any roads crossing the highway form two separate and distinct intersections (ex: a couplet). In such situations, each intersection has its own set of traffic control devices, and the median width between the two highway directions of travel exceeds 30 m. There must also be a clear and demonstrated need for a differential speed zone.

Differential speed zones may also be considered on undivided highways and divided highways with narrow medians if all of the following criteria are met:

1. A reduced speed limit may be perceived as unnecessary for one direction of travel (i.e., leaving an urban centre with a speed limit transition zone, or leaving rural traffic signal with a reduced speed limit at the intersection);
2. The difference between the proposed speed limits for each direction of travel is no less than 20 km/h, but no greater than 40 km/h;
3. Both of the proposed speed limits are supported by the highway geometrics and the highway design speed; and
4. Sight distance is greater than 430 metres for both directions of travel.

To avoid motorist confusion, there should be limited or no highway accesses within a differential speed zone. Differential speed zones are not recommended when a number of highway accesses exist.

If the above criteria are met, the proposed differential speed zone must be referred to the Technical Standards Branch, Highway Operations Section for a technical review prior to taking any further action.

If a differential speed zone is supported by the Highway Operations Section technical review, the speed zone amendment process shall proceed as outlined in the Ministerial Order Process for Speed Limit Amendments Recommended Practices guideline, available here:

<https://intranet.transportation.alberta.ca/TC/E/TSB/TrafficControlSigns/Traffic%20Control%20Standards%20/Speed%20Limit%20Amendment%20Ministerial%20Order%20Process.pdf>

Guidelines for Placement

Signs shall be placed on the right hand side of the road as outlined in the Placement of Signs Recommended Practice. Supplementary signs may be placed on the left side of the highway for divided, multi-lane highways. Sign layout shall be evaluated independently for each direction of travel and match the typical practices for signing speed limit reductions and increases.

References to Standards

<i>Recommended Practices</i> Part: Internal Processes	Ministerial Order Process for Speed Limit Amendments
<i>Recommended Practices</i> Part: Traffic Operations	Use of Speed Limit Transition Zones
<i>Recommended Practices</i> Part: General	Placement of Signs
<i>TAC Guidelines for Establishing Posted Speed Limits</i>	