

treatment options are both acceptable.

The advantages derived from Shoulder Edge Treatment include:

- increased lateral support;
- enhanced vehicle safety;
- no pavement edge drop off with fully paved shoulder;
- accommodates future overlay with minimal or no grade widening; and
- ease in construction for fully paved shoulder.

Basic Cross-sections

The basic cross-sections relating to the proposed standards are shown in **Figures BCS 1 - 9 attached to Transportation Planning Policy TP 2 / 98**. They are very similar to the basic cross-sections previously used by the Department, with the following exceptions:

Basic Cross-section 1 (4-Lane Divided)

All provincial highways would have a minimum 0.8 m partially paved shoulder. The left shoulder has been reduced for an Expressway from 2.0 m to 1.5 m and from 1.5 m to 1.2 m for an Arterial Route. In both cases the shoulder should be fully surface treated.

The warrants for consideration of four-laning an Arterial and Collector highways have been respectively raised to 6000 and 7000 vehicles per day (v/d). These warrants are only a guide as level of service and appropriate engineering and economic justifications that take into consideration road user costs / benefits **must** be applied to justify the four-laning of a highway.

Basic Cross-sections 2 and 2G (2-Lane)

National Highway System routes, Primary Arterials with an existing AADT greater than 3500 v/d, and roads where shoulders serve cyclists/other road users, would have fully paved shoulders.

Basic Cross-sections 3 and 4 (2-Lane)

A partially paved shoulder is provided for these cross-sections. However, when the existing AADT for a Primary Arterial route is less than 500 v/d and less than a 1000 v/d for Secondary Arterial and Collector roads, the full shoulder width should be gravel. In cases where the road serves other road users, the provision of fully paved shoulders should be considered.