

3.3M Vertical Alignment

3.3.2M Grades

3.3.2.4M Maximum Grade: Design Domain Application Heuristics

The TAC Subsection **3.3.2.4** is applicable to the Department's highways with the following substitution:

Table 3.3.1 is not applicable to the Department's rural highways for design speeds of 80 km/h or above. It is replaced by the values shown in Table 3.3.1M below.

Table 3.3.1M Maximum Gradients

| Design Speed (km/h) | 80 | | | 90 | | | 100 | | | 110 | | | 120 | | | 130 | | |
|------------------------|----|----|----|----|----|----|-----|----|----|-----|----|----|-----|----|----|-----|----|----|
| | F | RO | RU | F | RO | RU | F | RO | RU | F | RO | RU | F | RO | RU | F | RO | RU |
| Collector | - | - | 8 | - | 7 | 7 | 4 | 6 | 7 | 3 | 5 | - | 3 | - | - | - | - | - |
| Secondary Arterial | - | - | 8 | - | 7 | 7 | - | 6 | 7 | 3 | 5 | 5 | 3 | - | - | - | - | - |
| Primary Arterial | - | - | - | - | - | - | - | - | - | - | 5 | 5 | 3 | 3 | 3 | 3 | 3 | 3 |
| Expressway/ Freeway | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | 3 | 3 | 3 | 3 |

Notes: 1. F refers to flat topography
2. RO refers to rolling topography
3. RU refers to rugged topography