|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Design**  **Element** | | **Manual**  **Section** | **Design Speed** | | | | |
| 50 mph | 55 mph | 60 mph | 65 mph | 70 mph |
| \* Stopping Sight Distance **(1)** | | 10.1 | 425′ | 495′ | 570′ | 645′ | 730′ |
| Passing Sight Distance | | 10.2 | 1835′ | 1985′ | 2135′ | 2285′ | 2480′ |
| Intersection Sight Distance **(2)** | | 10.4 | 555′ | 610′ | 665′ | 720′ | 775′ |
| \*Minimum Radii | emin = 8% | 11.2.3 | – | 965′ | 1205′ | 1485′ | 1820′ |
| emax = 6% | 835′ | – | – | – | – |
| \*Superelevation Rate **(3)** | | 11.3 | 8% | 8% | 8% | 8% | 8% |
| \*Horizontal Sight Distance **(4)** | | 11.4 | 27′ | 32′ | 34′ | 35′ | 36′ |
| \*Vertical Curvature (K-values) **(5)** | Crest | 12.5 | 84 | 114 | 151 | 193 | 247 |
| Sag | 96 | 115 | 136 | 157 | 181 |
| \*Maximum Grade **(6)** | Level | 12.3.1 | 4% | 4% | 3% | 3% | 3% |
| Rolling | 5% | 5% | 4% | 4% | 4% |
| Mountainous | 7% | 6% | 6% | 5% | 5% |
| Minimum Grade **(7)** | | 12.3.2 | 0.5% | | | | |

\* Controlling design criteria (see Section 9.2).