

**GEOMETRIC DESIGN STANDARDS FOR RESIDENTIAL AND MIXED USE SUBDIVISION STREETS (GS- SSAR)
TABLE 1– CURB AND GUTTER SECTION**

| PROJECTED TRAFFIC VOLUME (ADT) | MINIMUM DESIGN SPEED (MPH) (NOT POSTED SPEED) | HORIZONTAL AND VERTICAL CONTROLS | | | | | CURB AND GUTTER ROADWAYS | | |
|--|--|---|-------------------|---|------------------------|------|--|--------------------|------------------------|
| | | Maximum 2:1 Cut or Fill Slope Preferred 3:1 Cut or Fill Slopes | | | | | (Minimum Widths Measured Face of Curb to Face of Curb) | | |
| | | CURVE DATA | | MAXIMUM % GRADE | MINIMUM SIGHT DISTANCE | | NO PARKING (6) | PARKING 1 SIDE (2) | PARKING BOTH SIDES (2) |
| MINIMUM CENTERLINE RADIUS (5) | SUPER-ELEV. | STOPPING (3) | INTERSECTIONS (4) | | | | | | |
| UP TO 2000 | 25 | 200' | NONE | NOTE (7) | 155' | 280' | 24' (1) | 24' (1) | 29' (1) |
| 2001 TO 4000 | 30 | 335' | NONE | NOTE (8) | 200' | 335' | 26' (9) | 31' (9) | 36' (9) |
| Notes: | | | | <ol style="list-style-type: none"> If the Local Street has 1 point of access and A DT>400 vpd, then the roadway width must meet design values (2001 to 4000 vpd). With parking lanes, the horizontal clearance (measured from face of curb) is 1.5' (Min). 2011 AASHTO Green Book Chapter 5 (Page 5-20). However, VDOT has established a 3' minimum setback requirement behind the curb (This Manual, Section B-5, Figure 10). 2011 AASHTO Green Book Chapter 3 (Page 3-4, Table 3-1) 2011 AASHTO Green Book Chapter 9 (Page 9-3 8, Table 9-6). For grades greater than 3%, the time gap must be adjusted and required sight distance recalculated. 2011 AASHTO Green Book Chapter 3 (Page 3-55, Table 3-13b) Lateral offset (measured from face of curb) should be a minimum of 1.5' (Min) 2011 AASHTO Green Book Chapter 5 (Page 5-20). Gutter pan is <u>not</u> a portion of the travelway, but is a portion of the parking lane. 2011 AASHTO Green Book Chapter 5 (Page 5-12). 2011 AASHTO Green Book Chapter 6 (Page 6-12). Lane widths may vary between 10'-12' feet for collectors with 2001-4000 ADT. Widths shown may be decreased by 2 feet (26 feet to 24 feet), (31 feet to 29 feet) and (36 feet to 34 feet) based upon engineering judgment subject to VDOT approval. | | | | | |
| <p>For streets with volumes over 4000 or serving heavy commercial or industrial traffic; use the appropriate geometric design standard. (see VDOT's Road Design Manual).</p> <p>The roadway with the highest volume will govern the sight distance.</p> <p>Right of Way requirements can be found in Section B-4.1 Right Of Way.</p> <p>For volumes 2001 – 4000 vpd, design criteria for the Collector functional class was utilized to determine minimum design values.</p> <p>Lower design speeds (and street widths) may be utilized provided they are designed in accordance with the AASHTO Green Book or AASHTO's Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT<400). The designer should coordinate with VDOT in advance of design (e.g. sketch plan stage) if this alternative criteria is being utilized.</p> <p>If 20 mph minimum design speed is utilized, a 20 mph advisory speed limit sign shall be posted along with any other horizontal or vertical curve warning signs as warranted.</p> <p>An engineering speed study sealed and signed by a licensed professional engineer, using VDOT's standard speed study report, must be provided by the developer and approved by VDOT for any roads posted at other than the statutory speed limit and planned for acceptance into the state system.</p> | | | | | | | | | |

* Rev. 7/16