

SECTION 3 – TURNING LANES

Left and Right Turn Lane Criteria

As a general policy, left-turn lanes are to be provided for traffic in both directions in the design of all median crossovers on non-access controlled four-lane or greater divided highways using controls as shown in Figure 3-1 and adjusted upward as determined by Figure 3-3 or by capacity analysis for left-turn storage.

Left-turn lanes should also be established on two-lane undivided highways where needed for storage of left-turn vehicles and/or prevention of thru-traffic delay as shown in Figure 3-1 and adjusted upward as determined by Table 3-1 and Figure 3-5 through 3-22 or by capacity analysis for left-turn storage.

LENGTH OF STORAGE		TAPER - Rural and Urban	
Rural - For Design Speeds 50 MPH or Higher	*L - 200' min. (For 240 or fewer vehicles during peak hour, <u>making turn</u>)	- For Design Speeds 35 MPH or Higher	**T - 200' Min.
- For Design Speeds 45 MPH or Less	*L - 100' min. (For 60 or fewer vehicles during peak hour, <u>making turn</u>)	- For Design Speeds 30 MPH or Less	**T - 100' Min.
*Distance L to be adjusted upward as determined by capacity analysis for Left and Right Turn Storage.		**Tapers are to be straight-line unless local policy requires reverse curves. In congested areas the taper length may be reduced to increase storage length. However, a design waiver shall be required.*	
Urban - Length determined by capacity analysis for Left and Right Turn Storage			

FIGURE 3-1 LEFT AND RIGHT TURN LANE CRITERIA

(To be used for divided and undivided highways)

(However, VDOT minimum standards for storage length (45 mph) is 100 feet)

Taper rates: 8:1 for design speeds up to 30 mph and 15:1 for design speeds between 35 and 50 mph. (Source: 2004 AASHTO “Green Book”, page 716).

Note: Taper lengths shown above were compiled using these formulas and were rounded up.

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