

F. TRAFFIC CALMING

During street layout and design, the issue of traffic calming should be considered. Early consideration can minimize future speeding problems and improve the livability of the neighborhood. If the street layout cannot be designed to encourage target speeds, traffic calming treatments may be appropriate. The type of treatment chosen for incorporation in the design depends on the function and traffic volume of the roadway segment.

Subdivision streets should be designed to encourage 85th percentile speeds in the range of 25 to 30 mph. This can be accomplished with attention to three major design areas – the width of the paved roadway surface, the length of tangent sections and the vertical grade.

The width of pavement should be the minimum to safely accommodate the proposed traffic. If this is not practical for other reasons, the road width can also be restricted at specific points through the use of chokers or raised median islands.

Tangent lengths should ideally not exceed 500 feet. Studies indicate that operating speeds were 30 mph or less when the tangent sections were no longer than 500 feet. Long tangent sections can be segmented by conditions that require a complete stop, such as T intersection or by conditions that require reduced speeds such as a traffic calming device. Devices that are suggested for new subdivisions with an average daily traffic between 600 and 4,000 vehicles per day include roundabouts, chokers, raised median/island, crosswalk refuges or raised pedestrian crosswalks.

Steep downgrades should be avoided in subdivision street design as vehicle speeds tend to increase on downward slopes and vehicles can quickly exceed desirable speeds. Speed humps should be avoided in favor of raised crosswalks. Four-way stop conditions should be avoided on low volume streets because there will be a tendency for the stop to be ignored and that has potential to train drivers that 4-way stops don't really mean "stop." Any proposal for four-way stops must be reviewed by the **Regional*** Traffic Engineer.

Further design details for all types of traffic calming measures may be found in VDOT's Traffic Calming Guide. Since the Traffic Calming Guide primarily represents retrofit designs, not all traffic calming design features in the guide are appropriate for new construction. The Figure 12 illustrates when certain types of traffic calming treatments are appropriate for new construction.

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