

MEMORANDUM

Date: July 17, 2013

To: All Holders of the Design Manual - Vol. 1 Roads and Storm Drains
Carroll County Department of Public Works - Bureau of Engineering

From: Christopher Heyn, PE ,Engineering Review

Re: General Release – Policy on Subdivision Sight Distance

The Carroll County Department of Public Works (DPW) has made a policy change regarding criteria for sight distance in proposed subdivisions.

When performing the design of new subdivision roads, the established design speed shall now be used consistently to define all geometric aspects of the roadway, including sight distance. This applies to new Loop Roads, Cul-De-Sac Roads, and Residential Roads as defined in the DPW Design Manual – Vol 1. Roads and Storm Drains.

This change in policy changes two design criteria for new subdivision roads.

Intersection Sight Distance – All intersections or connections to county roads, including new roads, single driveways, Use-In-Common driveways, and site entrance aprons are required to meet intersection sight distance criteria. The criteria on new residential subdivisions shall now be evaluated at the design speed of the roadway. The following table quantifies the required intersection sight distance for residential subdivision roads.

Design Speed (mph)	One Lane Crossed* Design (ft)
25	280
30	335
35	390
40	445
45	500
50	555
55	610

*Note, if more than one lane is crossed, designer should reference the current AASHTO A Policy on Geometric Design of Highways and Streets for appropriate criteria.

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This policy change also applies to proposed industrial subdivisions, however, the designer should refer to the current AASHTO A Policy on Geometric Design of Highways and Streets for the increased distances due to the different time gaps for trucks as compared to passenger cars.

Stopping Sight Distance – Vertical curves are to be designed to meet stopping sight distance appropriate to the design speed of the roadway. The following table quantifies the K value, or ratio of vertical curve length to percent change in grade, for various design speeds on new subdivision roads.

Design Speed (mph)	Stopping Sight Distance (ft)	Crest Rate of Vertical Curvature K (ft/%)	Sag Rate of Vertical Curvature K (ft/%)
25	155	12	26
30	200	19	37
35	250	29	49
40	305	44	64
45	360	61	79
50	425	84	96
55	495	114	115

Other than the sight distance policy described herein, this document does not change any other design criteria in the DPW Design Manual – Vol 1. Roads and Storm Drains.

This policy does not change any design criteria for access onto existing County roads. New connections to existing County roads must still be evaluated for intersection sight distance at a design speed of 10 mph greater than the posted speed. As always, a designer can perform a speed study on an existing road to validate the 85th percentile prevailing speed and use that rather than the 10 mph over posted speed.

As this policy change is a clarification of current County policy, there should not be a concern with grandfathering of projects. All plan submissions are now being reviewed in accordance with this policy.

If there are any questions please feel free to contact me at your earliest convenience at 410-386-2145 or at cheyn@ccg.carr.org.