



To: Development Community, Consultants and Contractors  
 From: City Engineer and City Traffic Engineer  
 Date: April 21, 2023  
 Re: Policy Clarification – Clear Zone for Roadway Design

This policy clarification supplements the City’s Engineering Criteria Manual (ECM), Part III, Traffic Criteria Manual, to guidance for horizontal and vertical clear zone requirements. **Clear zone** is **defined** as a roadside area that is unobstructed, where an out-of-control vehicle can traverse safely and roadside hazards.

Clear Zone shall conform to the CDOT Highway Access Code, AASHTO Green Book, and the AASHTO Roadway Design Guide as modified in the table below.

Roadway Speed/ Classification	Minimum Horizontal Clear Zone (Feet)	Minimum Vertical Clear Zone (Feet)
45 mph/Principal Arterial, Type 2	10*	16
45 mph/Principal Arterial, Type 1	10*	16
40 mph/Minor Arterial	<ul style="list-style-type: none"> <li>No Curb - 30*</li> <li>With Curb 2-feet measured from back of curb. 5-feet preferred.</li> </ul>	16
30 mph/Collector	<ul style="list-style-type: none"> <li>No Curb – 6* feet</li> <li>With Curb – 2-feet measured from back of curb, 5-feet preferred.</li> </ul>	14.5
25 mph/Residential (Local)	<ul style="list-style-type: none"> <li>No Curb – 6* feet</li> <li>With Curb – 2-feet measured from back of curb, 5-feet preferred.</li> </ul>	14.5
25 mph/Minor Residential (Local)	<ul style="list-style-type: none"> <li>No Curb – 6* feet</li> <li>With Curb – 2-feet measured from back of curb, 5-feet preferred.</li> </ul>	14.5
Public Alley	N/A	14.5
Industrial	<ul style="list-style-type: none"> <li>No Curb – 6* feet</li> <li>With Curb – 2-feet measured from back of curb, 5-feet preferred.</li> </ul>	16

\*From edge of traveled lane

Horizontal Clearance shall be measured from the edge of the traveled lane, have a 1:6 (horizontal to vertical) side slope or flatter which may have crashworthy or breakaway obstacles and shall be free of non-shielded obstacles except:

1. Traffic signal poles, railroad signals. Railroad tracks, bridge rails, ditches, driveways, intersections, bike/pedestrian paths (bike and pedestrian paths shall have a cross slope of less than 1:50; horizontal to vertical), curbs, raised median islands, median barriers, guardrails, crash cushions, drainage inlets, and traffic control devices.
2. Other obstacles must be approved by the ECM, Variance Committee.

If a 1:6 (H:V) side slope cannot be provided or if there are non-breakaway obstacles within the clear zone, a barrier warrant needs to be considered.

Vertical Clearance shall be provided over the entire roadway including traveled lanes and paved shoulder width. Sidewalks and bike paths shall have a minimum vertical clearance of 10-feet.