

## ROADWAYS WITH CURB

For urban arterials and other non-controlled access facilities in an urban environment, right of way is often extremely limited. In many cases, establishing a clear zone using the guidance in the *Roadside Design Guide*, Chapter 3 is not practical. These urban environments are often characterized by sidewalks beginning at the back of the curb, enclosed drainage, numerous fixed objects (e.g. signs, utility poles, luminaire supports, fire hydrants, sidewalk furniture), and frequent traffic stops. These environments typically have lower operating speeds and in many instances, on-street parking. In these environments, a lateral offset to vertical obstructions (e.g. signs, utility poles, luminaire supports, fire hydrants), including breakaway devices, is needed to accommodate motorist operating on the highway.

When providing clear zone in accordance with the *Roadside Design Guide* in an urban area is not practical, consideration should be given to establishing as much lateral offset as practical, or incorporating as many clear-zone concepts as practical, such as removing roadside objects or making them crashworthy. Ideally, appurtenances (e.g. benches, trash barrels, bicycle racks) should be located as far away as practical, but at least 4 feet from the face of curb. Breakaway designs shall be used for poles and appurtenances located less than 6 feet from the face of curb. See Figure A-2-1, Case 2 and\* Figure A-2-1A, Case 3 and Case 4.

Although the clear roadway concept is still the goal, many compromises are likely in urban or restricted environments. A minimum lateral offset of 1.5 feet shall be provided beyond the face of curb, with 3 feet minimum at intersections and driveway openings (10'–15' recommended, See *Roadside Design Guide*, Chapter 10). Note that this minimum lateral offset does not meet clear zone criteria but simply enables normal facility operations by providing clearance for turning trucks, etc. Consideration should be given to providing more than the minimum lateral offset to obstructions by placing fixed objects behind the sidewalk or sidewalk space. See Figure A-2-1, Case 2 and Figure A-2-1A, Case 3.

Note that curb is applicable to roadways with design speeds  $\leq 45$  mph and should be used on roadways  $> 45$  mph only in special situations. These situations may include, but are not limited to drainage considerations, a need for access control and right of way restrictions.

When a vertical drop-off or other hazard (see Section I-3, Guardrail Warrants) is located within 6' of the face of curb, guardrail should be considered. For instructions on the placement of guardrail adjacent to curb, see Section I-3, Guardrail Installation in Urban Settings. Contact the Location and Design Standards and Special Design Section for details.

Any fixed objects (signs, luminaire supports, large trees, etc.) located within a curbed median should not be located less than 6' from the face of curb. See Figure A-2-1A, Case 4.

Source: AASHTO Green Book, Chapter 4, Section 4.7.1, page 4-16 / *Roadside Design Guide*, Chapter 10

---

\* Rev. 1/17