Providing adequate sight distance at all intersections is important to protecting the traveling public. An inability to see, and respond to, oncoming traffic is a cause of crashes in Cochise County. Identifying a Driver’s Clear Zone helps property owners provide adequate sight distance for drivers using their designed roadway or driveway.

What are Sight Distance Triangles?
Sight triangles identify areas at the corners of intersections of roads and driveways where views of approaching traffic should not be obstructed. Sight distance triangles must be identified and shown at all road intersections and noted on the final subdivision plat and on commercial site plans. These areas should be noted as “minimum driver’s clear zone”, and are required to remain free of all obstructions that would interfere with a driver’s visibility. This clear zone area is defined as anything between the heights of 3 ft and 10 ft, which often include buildings, signs, mailboxes, parked vehicles, walls/fences, vegetation etc. Exceptions (such as utility poles) may only be approved by the County Engineer.

Sight distance triangles are based on the time needed for a driver to see traffic on an uncontrolled street, to then decide to turn, make the turning movement, and begin accelerating. Sight distance triangles for approaching traffic on both sides of any accessed roadway must be determined and provided on your design plans.

See Cochise County Standard Detail CC300 for additional information and requirements.

Special Notes:
- A sight distance triangle is measured from edge of pavement to edge of pavement or, if an unpaved roadway, from the edge of the travelway.
- Determination of sight distance triangles may also be calculated by a traffic or civil engineer, consistent with AASHTO Green Book, to provide an unobstructed view of the roadway visible to the driver.
- If frequent or high levels of large truck traffic are anticipated at the approach, increased intersection sight distance may be warranted and should be calculated consistent with AASHTO Green Book.

Minimum Driver’s Clear Zone:
No screening, landscaping, vegetation, structures, parking areas or other obstruction to visibility between the heights of three and ten feet above the top of curb or centerline grade of the street will be permitted within the clear zone as defined by the sight distance triangular area. Development must be set back or restricted in order to provide clear sight distance.

Sight Distance/Clear Zone Exhibit:
The Exhibit and table below represent the typical length expectation for Distance “X” along a straight two lane roadway to establish an adequate clear zone area.

<table>
<thead>
<tr>
<th>POSTED THROUGH SPEED</th>
<th>X DISTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 MPH</td>
<td>280 FEET</td>
</tr>
<tr>
<td>35 MPH</td>
<td>390 FEET</td>
</tr>
<tr>
<td>45 MPH</td>
<td>500 FEET</td>
</tr>
<tr>
<td>55 MPH</td>
<td>550 FEET</td>
</tr>
<tr>
<td>65 MPH</td>
<td>650 FEET</td>
</tr>
</tbody>
</table>

Sight distance calculations should be performed when horizontal or vertical curvature (hills or curves in the roadway) might impact the placement of a sight distance triangle.
What are the typical Sight Distance considerations?

**Horizontal Alignment/Skew:** Sight distance is a measure of visibility, and so it is preferred that driveways and roadways are ideally at a 90-degree angle (perpendicular) to the road they are accessing, for optimal and balanced view in both directions. When parcel circumstances cannot accommodate this, a reduction to a minimum of 60 degrees, may be considered for approval by the County Engineer.

**Vertical Alignment:** When you are installing a new driveway or roadway, or re-evaluating an existing condition, the vertical alignment of the roadway you are making a connection into should be taken into consideration. If the driveway or roadway is placed on either side of a crest curve, sight distance may be impeded by the roadway crest curve.

**Landscaping:** Landscaping within the Right-of-Way may be permitted, in compliance with the Roadside Design Guide, provided that your landscaping does not impede recommended sight distance or cause visibility problems, introduce safety hazards, and does not create the potential to damage the road and drainage system infrastructure.

**Permitting:** A Right-of-Way permit is required prior to construction of a driveway or roadway and/or the subsequent clearing of the minimum driver’s clear zone within the County’s Right-of-Way. It is your responsibility to keep your driveway in good condition, your culverts cleared and the driver’s clear zone free of any obstructions.

**What if my parcel access has difficult features that may require special considerations?**

Variances to the sight distance triangle standards as contained in the Cochise County Road Design & Construction Standards & Specifications for Public Improvements are rarely approved. A few exceptions may be utility poles, mailboxes, fire hydrants, etc. and must be approved on an individual basis by the County Engineer.

Requests for review and approval must include site plans that illustrate sight distance triangles with mitigation plans for any obstacles still within the driver’s clear zone.

**Highway and Floodplain Department**

Design Standards, Detail, Specifications, zoning & floodplain maps, as well as permit applications are available in Bisbee and Sierra Vista. Call for Service Center locations and office hours or visit our website at www.cochise.az.gov.