Intersection Design

Intersections should be carefully situated to avoid steep profile grades and to ensure adequate approach site distance. An intersection should not be situated on a short-crest vertical curve, just beyond a short-crest vertical curve, or on a sharp horizontal curve. When there is no practical alternate to such a location, the approach sight distance on each leg should be checked carefully. Where necessary, backslopes should be flattened and horizontal or vertical curves lengthened to provide additional sight distance. Sight distance should be sufficient to permit a vehicle on the minor leg of the intersection to cross the traveled way without requiring the approaching through traffic to slow down. As a general rule, there should be a minimum of 7 sec available to the driver of a passenger vehicle crossing the through lanes. On this basis, the suggested corner sight distance for each design speed would be as given in Table V-11. For further details see section on sight distance in Chapter IX.

Design Speed (mph)	Corner Intersection Sight Distance (ft)[a]
60	650[b]
50	515
40	415
30	310
20	210

[a]Corner sight distance measured from a point on the minor road at least 15 ft from the edge of the major road pavement and measured from a height of eye at 3.50 ft on the minor road to a height of object at 4.25 ft on the major road.

[b]At 60 mph stopping sight distance governs.

Table V-11. Corner sight distances at rural intersections.

Intersections should be designed with a corner radius of the pavement or surfacing that is adequate for the larger vehicles anticipated. For minimum edge radius, see Table II-2, Chapter II. Where

turning volumes are signi
change lanes and channe

Intersection legs that o
be 90° if possible, but in
Chapter IX.

Railroad - Local-Road Gra

Appropriate grade-cross
railroad - local-road grade
are given in the MUTCD (
devices to be used may be

Sight distance is an impo
ings. There must be sufficie
to recognize the crossing,
trains, and stop if necessary

The roadway width at a
the width of the approach r

Traffic Control Devices

Signs, pavement and othe
signal controls are essential
Refer to the *Manual on Unif*
for details of the devices to b
for their use.

Erosion Control

All slopes and drainage are
for the desired natural ground
opened during construction.
control including seeding and
protection of swales and other
local road design. Considerati
requirements and overall eco

In roadside design the pre
desirable growth of shrubs a
that such growth does not co