Oregon Department of Transportation

Basic Approach Permit Approval Standards

Sight Distance

Sight Distance is one of three approach permit approval standards.

Points of Interest

What is sight distance?

Types of sight distance.

Stopping sight distance.

Intersection sight distance.

Deviations from sight distance standards.

- ✓ A fast moving vehicle needs more distance to stop safely than a slow moving vehicle.
- ✓ Stopping sight distance increases as speed increases and on down grades.
- ✓ It decreases as speed decreases and on upgrades.

What is Sight Distance?

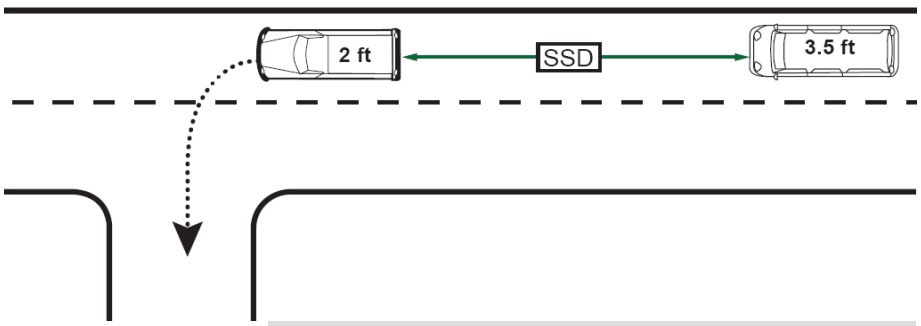
Sight distance is the length of highway a driver needs to be able to see clearly. It is important for drivers on a highway to see far enough down the highway to recognize an object in the path and react appropriately to avoid a crash. It is equally important for drivers entering the highway to have a clear line of sight in both directions to see oncoming traffic and to be visible to other drivers on the highway.

Two Types of Sight Distance

1. **Stopping Sight Distance** measures the distance between a vehicle on the highway and an object in the travel path**.**
2. **Intersection Sight Distance** measures the length of the line of sight between a vehicle entering the highway from a driveway or crossroad and vehicles on the highway approaching from the right and left.

Stopping Sight Distance (SSD)

Stopping sight distance is the <u>minimum</u> length of unobstructed roadway a driver needs to see in order to identify an object in the roadway, brake and quickly stop or take other appropriate action to avoid crashing. It is also described as minimum braking distance.

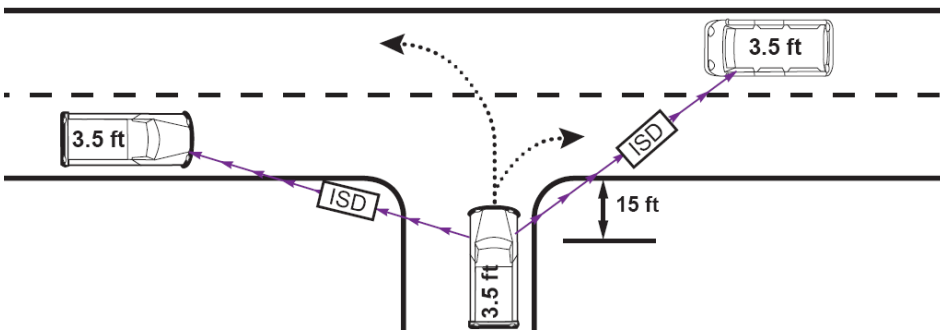


Stopping sight distance (SSD) is measured from the height of a driver's eye (3.5 feet) to an object 2 feet high or more in the roadway.

Intersection Sight Distance (ISD)

Intersection sight distance is the minimum length of unobstructed line of sight between a driver entering a highway and vehicles approaching from the right and left on the highway. It is as important for drivers entering the highway to see traffic coming from both directions and to be visible to the on-coming traffic.

A driver entering a highway needs to see far enough down the highway in both directions to judge travel speed and find an acceptable gap in the traffic before turning right or turning left across travel lanes and merging into the traffic. Intersection sight distance is intended to allow a driver to enter the highway safely while allowing traffic on the highway to maintain normal travel speed.



Intersection sight distance (ISD) measures a line of sight from the height of driver's eye (3.5 feet), seated 15 feet back from the fog line or edge of the traveled way, to the right and to the left, to an object in the highway that is 3.5 feet high.

Deviations from Intersection Sight Distance

The sight distance standards ODOT uses to evaluate approach applications are based on intersection sight distance. If it is not possible to meet intersection sight distance standards, then ODOT may be able to adjust:

- The assumed speed of the oncoming traffic; or
- The point in the driveway where intersection sight distance is measured.

In most situations, intersection sight distance is greater than stopping sight distance. ODOT may be able to consider approving a sight distance deviation by using stopping sight distance in place of intersection sight distance. ODOT may require the applicant to provide mitigation in order to approve a deviation from intersection sight distance standards.