

Rear Access Roads

Rear access roads run parallel the mainline route and provide alternative access to property (see figures below). Property access is provided along the frontage or rear access road, which accesses the arterial via a cross road (with a traffic signal if necessary). This reduces the number and density of conflict points associated with strip development. These roads are generally applicable to commercial development.

Why are rear access roads important?

Rear access roads reduce conflict points between through traffic and turning traffic associated with strip development and direct property access to the arterial. Conflict points are associated with reduced levels of roadway safety and operations. Studies have shown that when driveway access to arterial roadways is granted to too many property owners without considering future traffic volumes and roadway classifications, the additional driveways increase the rate of accidents and decrease the efficiency of the roadway. NCHRP Report 3-52 shows that accident rates increase dramatically as the number of driveways per mile increases along urban arterial roadways.

When are rear access roads most effective?

Rear access roads are most effective on relatively heavily traveled, higher speed arterials. Opportunities to construct access roads are generally restricted to locations where there is substantial spacing between intersecting roads, little if any existing development, and a development plan. Retrofit may be possible where the availability of land behind developed properties is sufficiently large.

A rear access road provides access to the rear side of commercial properties located between the rear access road and the arterial. It also provides access to properties located on the opposite side of the rear access road from the arterial, thus increasing land values and reducing infrastructure costs to individual properties.

What are some design considerations of rear access roads?

Rear access roads with development along both sides are preferable to frontage roads because they allow for greater distance between the connection to the cross street and the intersection with the arterial.

How else do rear access roads compare with frontage roads?

In comparison to frontage roads, rear access roads provide access to a greater number of individual properties (assuming development along both sides of the road). This increases the value of the land and reduces road construction costs for individual properties. Rear access roads are increasingly becoming more common.