



Reduce an Intersection Curb Radius

Reconstruction of the edge of traveled way at the intersection to provide a smaller corner radius, which can (1) reduce the turning speeds of right-turning vehicles (or left-turning onto a one-way street), (2) shorten the distance of pedestrian crossings, and (3) improve visibility between motorists and pedestrians.



Source: PEDSAFE (Michael Hintze)

Reducing the curb radius decreases the pedestrian crossing time and distance and forces turning vehicles to slow down.

Targeted Crash Types

- Pedestrian
- Bicyclist

Problems Addressed

- Vehicle conflicts with non-motorists
- Non-compliance with intersection traffic control devices

Conditions Addressed

- Observed vehicles making right-turn movements at high speeds.
- Observed right-turning vehicles failing to comply with STOP (R1-1) sign.
- Crash history or observed conflicts between pedestrians and/or bicyclists and vehicles making right turns.
- Each of the above conditions could also apply to left turns onto a one-way street.

Considerations

- Providing a curb radius that is too small may result in larger vehicles (e.g., trucks and buses) driving over the curb, creating potential for conflicts with pedestrians and bicyclists at the corner and damaging the curb.
- Designs must accommodate emergency vehicles and drainage at the corner.
- A larger “effective” radius can be established when a bicycle lane line, parking lane line, or edge line is used to direct vehicles away from the curb line or edge of pavement.
- Smaller radii will provide for a shorter crossing distance and will place pedestrians in a more visible position before they step into the street.

Industry Standard

AASHTO Green Book
Section 2.1.2: Minimum Turning Path of Design Vehicles
Section 9.6.1: Types of Turning Roadways, Effect of Curb Radii on Pedestrians

Other Resources

[Curb Radius Reduction, PEDSAFE](#)
[Curb Radii Revisions, BIKESAFE](#)

