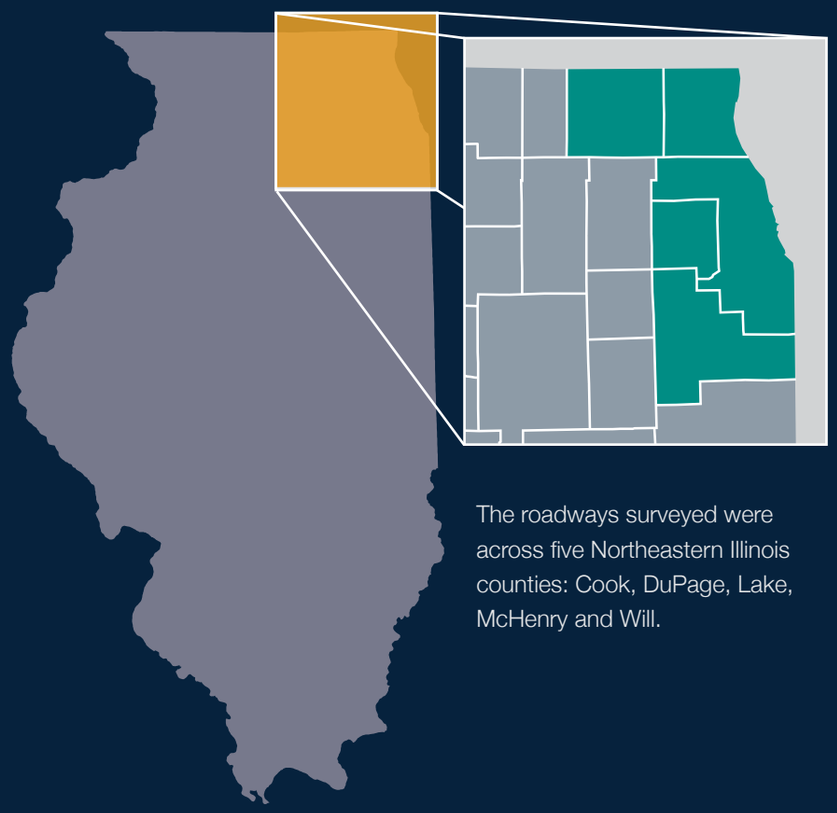
Building Safer Roads

Studying Median Safety and Crash Reduction in Northeastern Illinois

Illinois Department of Transportation

STUDY AREA



The roadways surveyed were across five Northeastern Illinois counties: Cook, DuPage, Lake, McHenry and Will.

To view the full median treatment study, visit www.idot.illinois.gov/transportation-system/safety/roadway/index

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Multi-lane roads are commonly the site of serious—and sometimes fatal—collisions.

Nationally, studies have been conducted to understand roadway safety, but none with a local focus. In 2017, IDOT commissioned a study in Northeast Illinois to identify crash patterns and median treatments that reduce collision rates in our area.

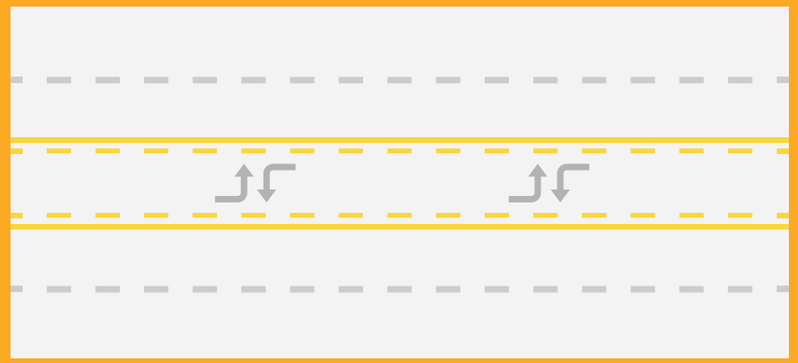
Here is what we learned to make our roads safer.

ABOUT THE STUDY

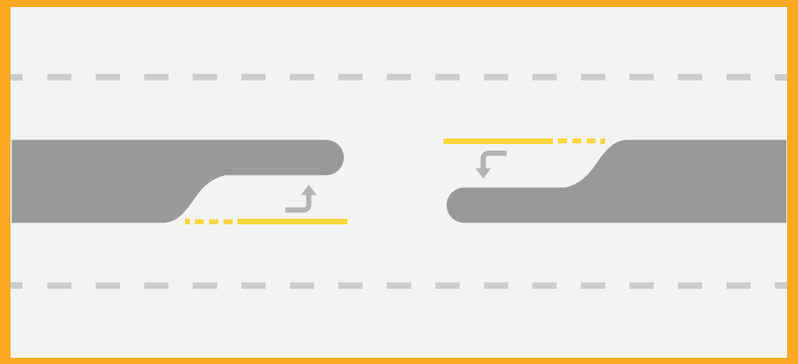
This study compares two median types: flush medians and raised curb medians.

We surveyed crash data for 18 corridors across 5 local counties. The study mainly focused on 4-lane raised curb medians and 5-lane flush medians*, and roadways that represent a mix of transportation demands and traffic volumes.

**6- and 7-lane roadways were also included in the study, but are not as prevalent in the region.*



Flush medians
No access restrictions, left-turning vehicles removed from through lanes.



Raised curb medians
Limited access, turn lanes identified as specific segments.

KEY FINDINGS

Overall crash rates were significantly lower when raised curb medians were present.

Crash reduction rate with raised curb medians

70-80% VEHICLE

85% PEDESTRIAN

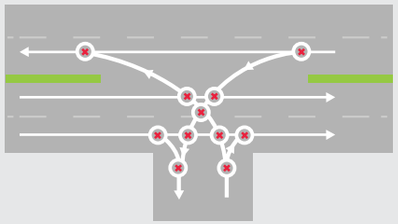
97% BIKE

Results reflect 5-lane flush vs. 4-lane raised curb medians. Similar reductions were also found when comparing 7-lane flush vs. 6-lane raised curb medians.

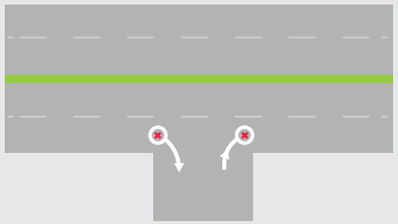
Raised curb medians benefits

When compared to a flush median, **raised curb medians present 81% fewer conflict points,** which are locations where a collision can happen.

Flush median
11 conflict points



Raised curb median
2 conflict points



In addition to safety benefits, raised curb medians provide greater opportunities for:

- + Pedestrian refuges
- + Water quality
- + Landscaping

THIS STUDY HELPS US

Identify median types
that reduce overall crashes.

Reduce conflict points
for multi-lane roadways.

Make travel safer
for all modes of transportation, including biking and walking.