

NJDOT Data Driven Safety Analysis – Burlington County Roundabout



OVERVIEW OF INNOVATION

The New Jersey Department of Transportation (NJDOT), in partnership with the Delaware Valley Regional Planning Commission (DVRPC) and Burlington County officials, used predictive safety analysis tools to help secure public buy-in, and funding, for a modern roundabout at a rural intersection.

The intersection of county road 528 and county road 660 in Chesterfield Township had experienced severe crashes and had been identified for improvement in a prior study conducted by the DVRPC. The analysis used HSM Part C predictive tools to quantify the expected safety performance (number and severity of crashes and total societal costs) of each alternative, and determine the benefit/cost ratio. The modern roundabout had a benefit/cost ratio of more than twice that of a signalized intersection.

The before and after crash analysis at this location showed a 100% reduction in right-angle and left-turn crashes.



Source: FHWA

BENEFITS

Data analysis:

Convinced local residents of the value of a roundabout

Supported HSIP funding

Improved safety – there are fewer crashes at the location

FIND OUT MORE . . .

- NJDOT Data Driven Safety Analysis <https://www.njdottechtransfer.net/2019/09/05/ddsa-new-jersey-case-study/>
- FHWA Case Study, Data Driven Safety Analysis: https://cloud.3dissue.com/35928/36543/190477/DDSAInteractive_NJ_3DIssue/index.html?r=93

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