



Trunk Highway 246 and Jefferson Parkway Roundabout Improvement

Authorize Request for Proposals
February 5, 2019





Roundabout
T.H. 246 / Jefferson Parkway

Northfield
Minnesota

0 0.05 0.1 0.2
Miles



Background

- In 2016 City Completed Intersection Control Evaluation for Trunk Highway (TH) 246 and Jefferson Parkway
- Project Team – MnDOT, School District, City, Consultant (SEH)
- The process included Public Participation to gather input on issues
 - Open House's
 - Online Survey
- Shared Study Findings and Recommendation with Public to receive input and Final Report
- City Council Accepted the Report March 21, 2017



Project Goals

- Improve accessibility pedestrian and bike access
- Improve school ingress/egress
- Improve safety for all users
- Improve mobility
- Support Community Growth



Intersection Options Reviewed

- Existing All-Way Stop
 - Traffic operation will continue to worsen
 - Level of Service (LOS)
 - A = free flow conditions
 - F = stopped, congested flow
 - Currently LOS D and delay of 28 sec/veh
 - Projected LOS F and delays continue to increase
 - Driver confusion with multiple lanes and traffic legs
 - Pedestrians crossing multiple lane, longer exposure to traffic, not as safe
 - Pedestrians not crossing at designated marked crossings






Project Goals – Do Nothing Stop Sign

- Improve accessibility pedestrian and bike access 
- Improve school ingress/egress 
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- Improve mobility 
- Support Community Growth 





Intersection Options Reviewed

- Traffic signal 
 - Not warranted at this time (possibly 2040 when traffic volumes increase)
 - Too long to wait and not do anything
 - Still wouldn't be the recommended improvement



1. Single Lane Roundabout



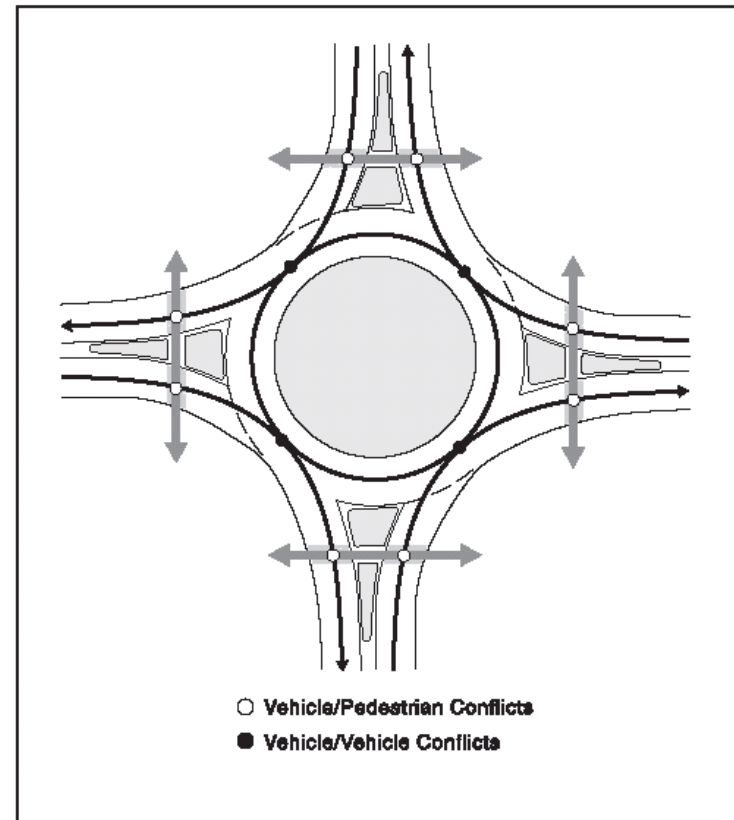
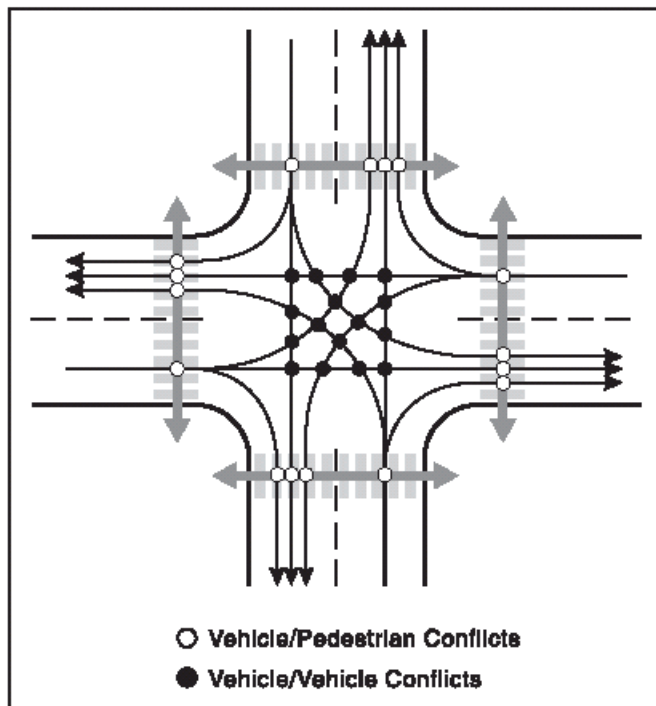
Project Goals

- Roundabout
 - Best for traffic flow (operates at higher level of service than a stop sign or signal)
 - LOS B in 2040 with delay of 10 sec/veh
 - Fewer vehicle crashes and less severe
 - Single lane has been found safe for pedestrians and bicyclists
 - Reduces confusion that exists at the all-way stop
 - Reduces speeds – Increased Safety
 - In MN, no reported pedestrian fatalities at Single Lane Roundabouts





Increased Vehicle & Ped Safety



Source – Roundabouts: An Informational Guide (FHWA)





Safety – Increased Ped Safety

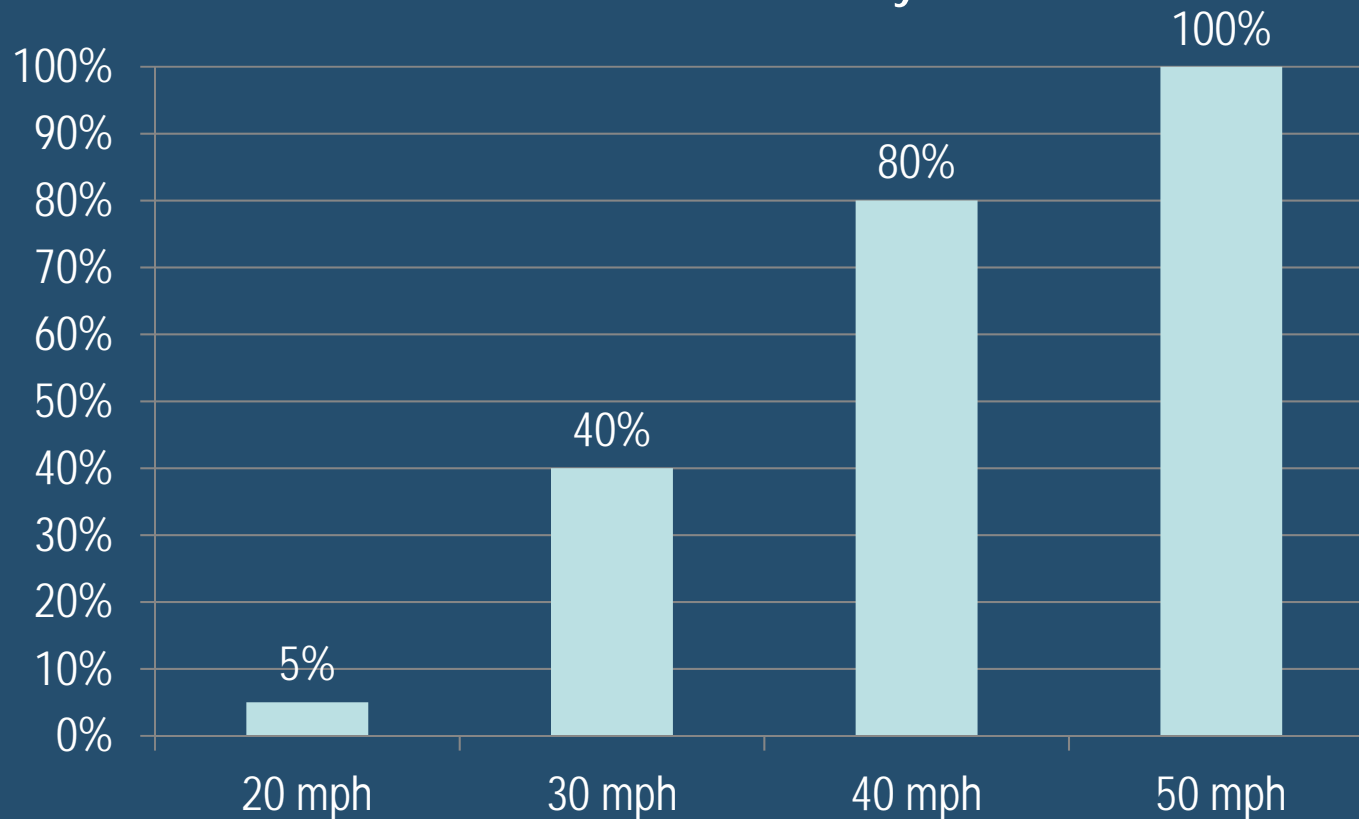
- Shorter crossing distance
- Pedestrian only looks one direction
- Drivers at signals watch the light
- Drivers at typical intersections tend to look left and turn right
- Pedestrian crossing separated from intersection – allows driver to pay more attention to pedestrian





Pedestrians

Chance of Pedestrian Death If Hit By a Motor Vehicle



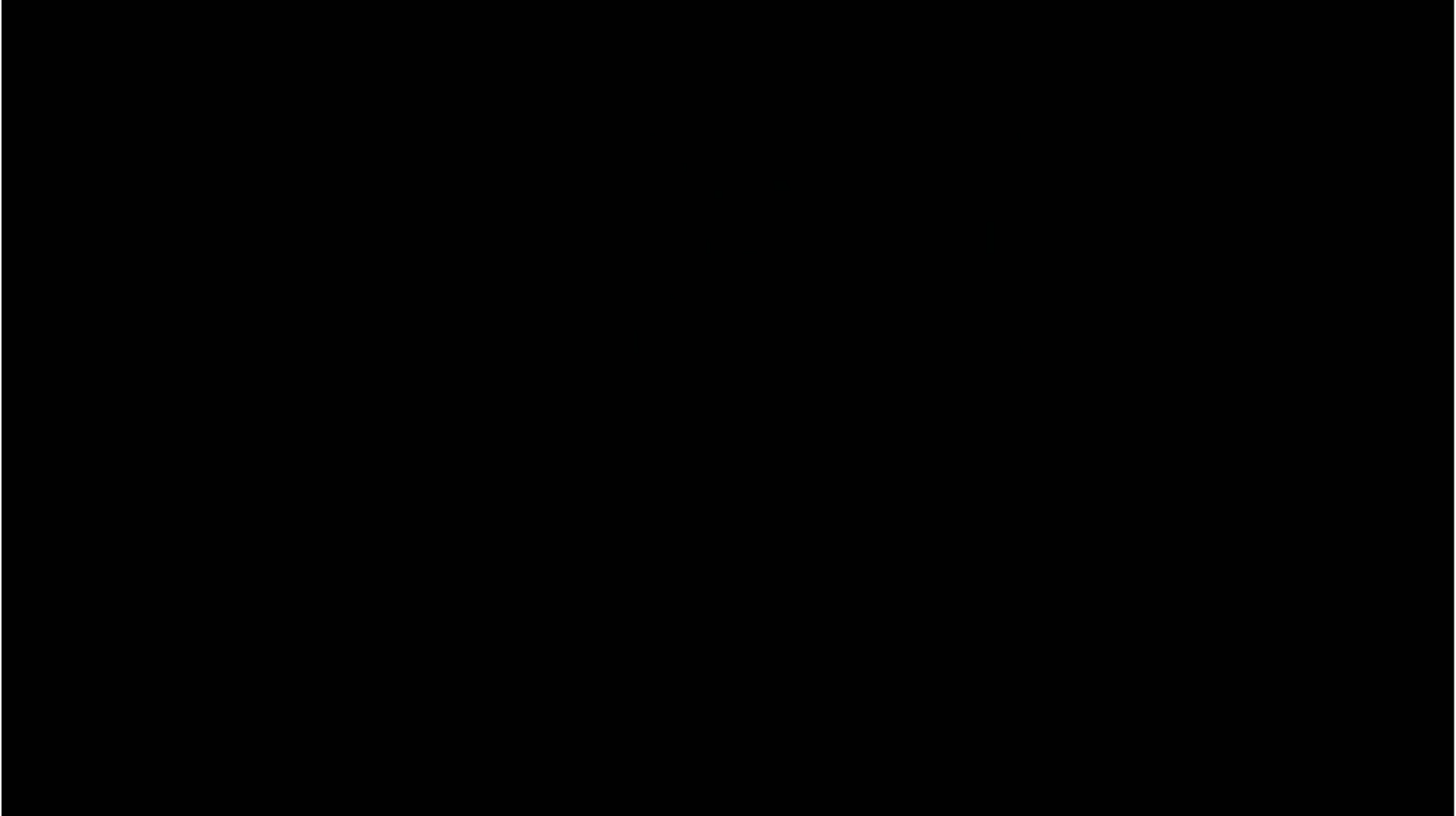
Literature Review on Vehicle Travel Speeds and Pedestrian Injuries
– Final Report DOT HS 809 021, October 1999



Failure to Yield to Kids



Pedestrian Roundabout Crossing Video





Project Goals – Roundabout

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Project Costs



- Roundabout Project Cost (\$1,857,000) in 2020
- City awarded \$483,480 in the Local Partnership Program
- City awarded \$900,000 in Local Road Improvement Program grant.
- Other funding State Aid and Enterprise Funds



Project Considerations

Sidewalk Extension to Marvin Ln & Crosswalk



Project Considerations

Sidewalk Extension to Marvin Ln & Crosswalk



Seattle

Project Considerations

Mill Towns Trail





Project Considerations

Gateway Improvement



City of Northfield

Gateway Corridor Improvement Plan



Project Schedule

- Tonight's Action – Authorize Request for Proposal for engineering services
- June 2019 – Preliminary Design (30%)
- June – Nov. 2019 Final Design
- Bid Jan. 2020
- Construct Summer 2020



Questions



- Improve accessibility pedestrian and bike access
- Improve school ingress/egress
- Improve safety for all users
- Improve mobility
- Support Community Growth

