



# Trunk Highway 246 and Jefferson Parkway Roundabout Improvement

Authorize Request for Proposals  
February 5, 2019





Roundabout  
T.H. 246 / Jefferson Parkway

Northfield  
Minnesota



# 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 
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## 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





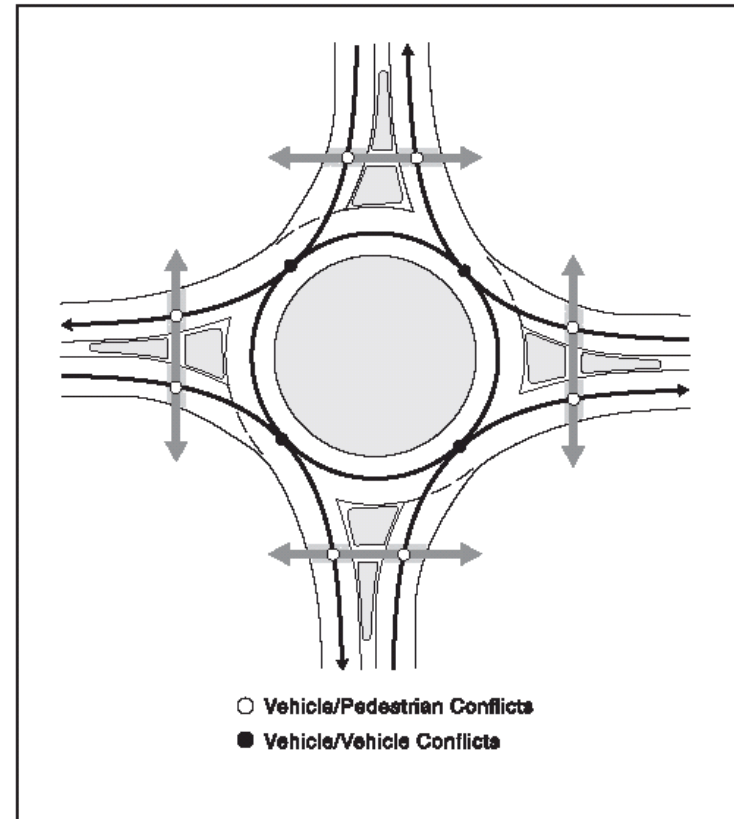
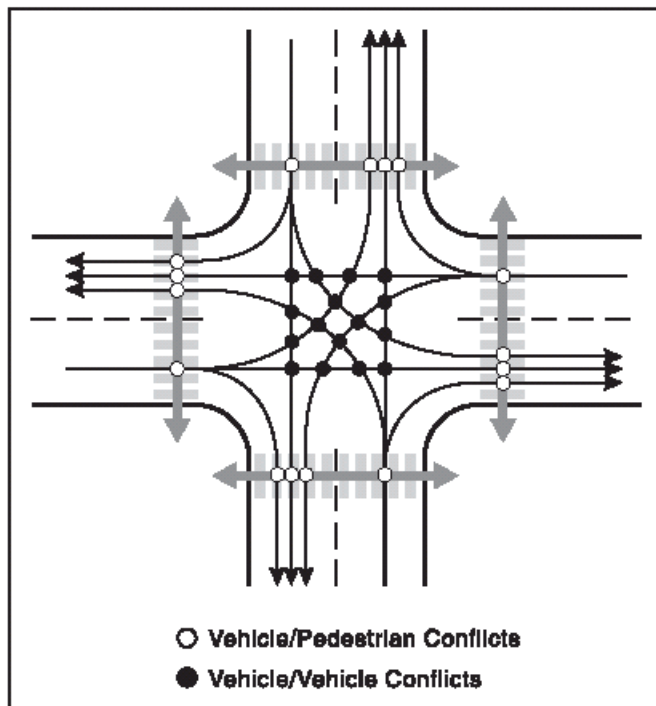
# Project Goals

- 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

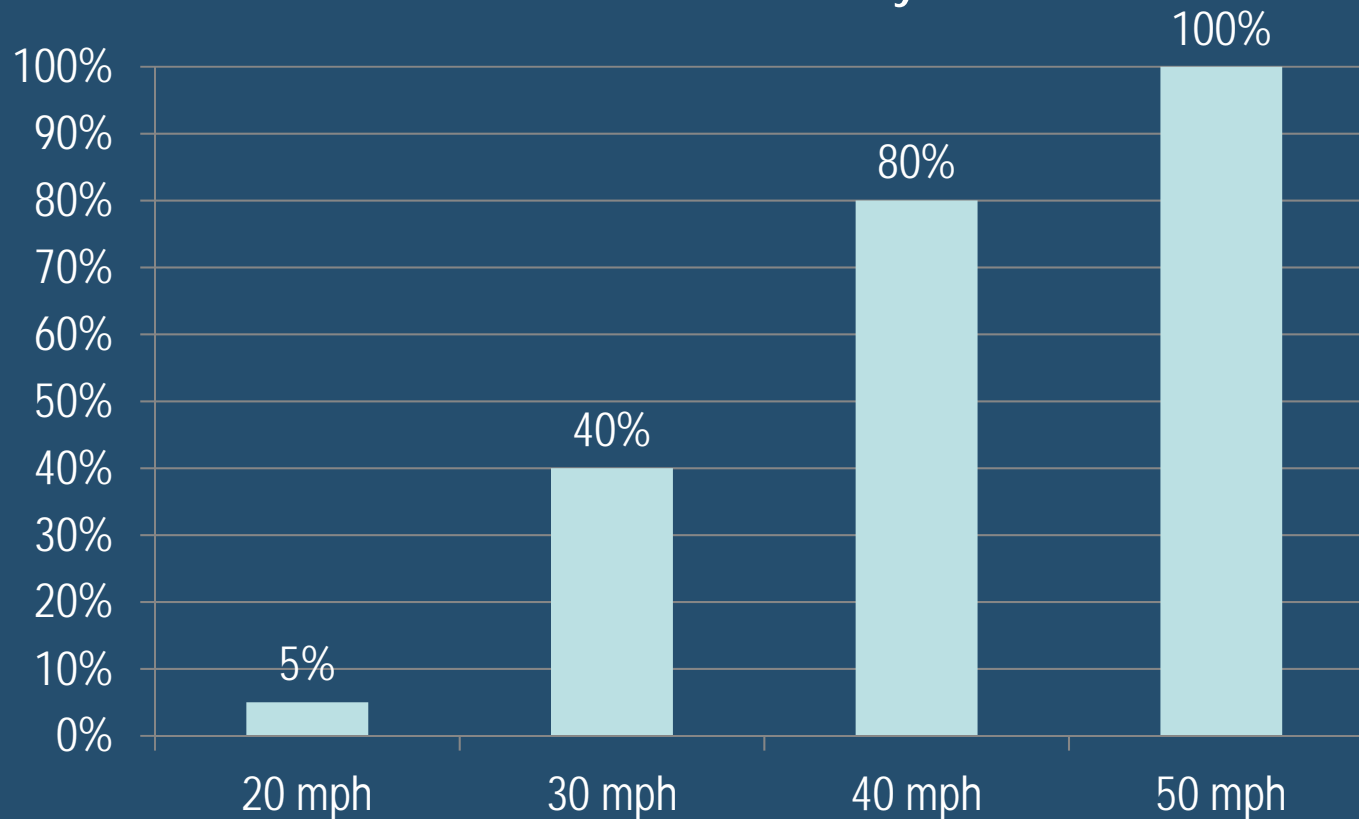
- Shorter crossing distance
- Pedestrian only looks one direction
- Drivers at signals watch the light
- Drivers at typical intersections tend to look left and turn right
- Pedestrian crossing separated from intersection – allows driver to pay more attention to pedestrian





# Pedestrians

## Chance of Pedestrian Death If Hit By a Motor Vehicle



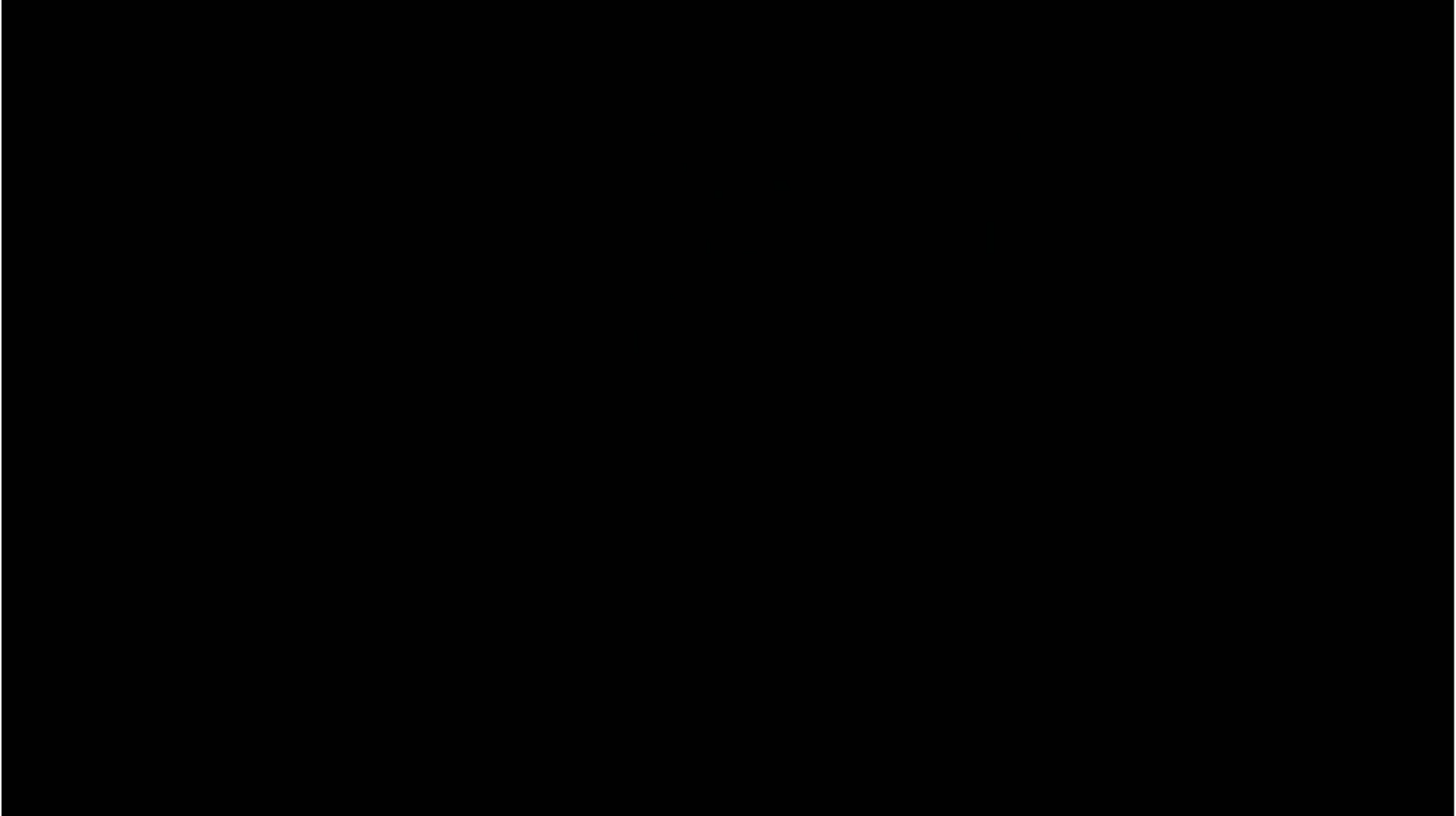
*Literature Review on Vehicle Travel Speeds and Pedestrian Injuries*  
– Final Report DOT HS 809 021, October 1999



# 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





## 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

