



**MEMORANDUM**

DATE: July 16, 2019

To: Honorable Mayor & City Council

CC: Dave Bennett, Director of Public Works/City Engineer; Monte Nelson, Police Chief; Mitzi Baker, Community Development Director; Deb Little, City Clerk; Michelle Mahowald, Communications & Human Resources Director; Teresa Jensen, Director of Library and Information Technology Resources; Chris Hood, City Attorney

From: Ben Martig, City Administrator

RE: "Supplemental Agenda Background Memo" for July 16, 2019 No.2.

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**Summary Report:**

The following is an update on agenda items as supplemental background agenda information made available for Tuesday, July 16, 2019.

Item 2. Jefferson Parkway TH 246 Roundabout Discussion

The presentation for tonight has been updated to provide additional background information on the project. In addition, Alternative 4 has been provided with at-grade pedestrian crossing on all four legs of the intersections.

July 16, 2019

City Council Workshop

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# City of Northfield TH246 & Jefferson Parkway Roundabout Project

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# History & Schedule

## **2016:**

Approved Intersection Control Evaluation & Traffic Impact Analysis  
City Council adopted roundabout as preferred option.

## **2017/2018:**

Acquired funding from:

MnDOT's Local Partnership Program (\$483,480)

MnDOT's Local Road Improvement Program (\$900,000)

## **2019:**

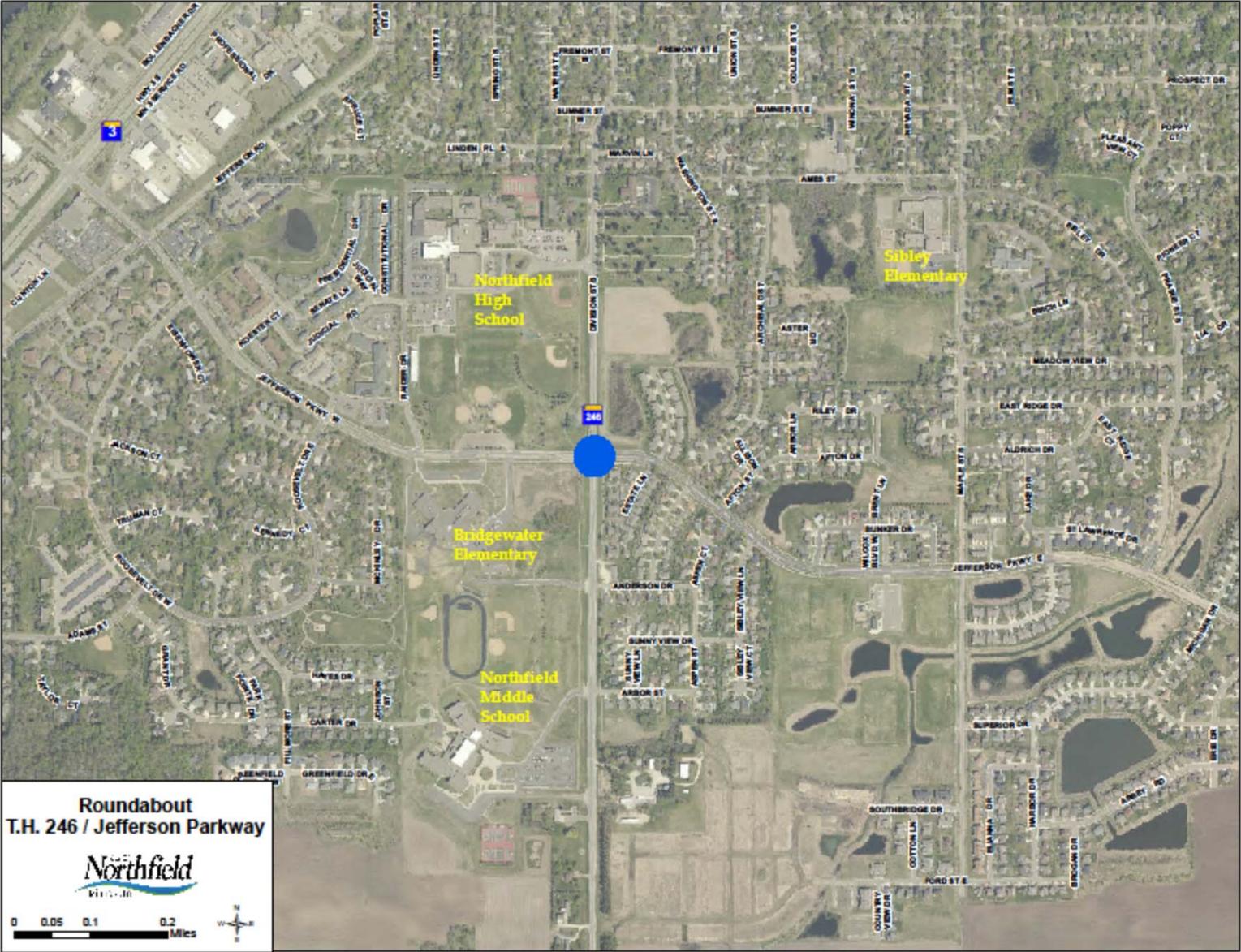
Adopted Mill Town Regional Trail Route  
Roundabout Feasibility Study / Design

## **2020:**

Construction



# Project Location



# TH 246 at Jefferson Parkway

- History / Problem
  - Peak hour operational issues causing lengthy backups and delays.



- Lack of pedestrian crossings and infrastructure making accessibility to schools challenging.

# TH 246 at Jefferson Parkway

- Goals
  - Alleviate peak hour congestion
  - Improve pedestrian and bike access
  - Improve school ingress/egress
  - Improve safety for all users



# TH 246 at Jefferson Parkway

- Considerations
  - 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
  - Traffic signal
    - Not warranted at this time (possibly 2040 when traffic volumes increase)

# TH 246 at Jefferson Parkway

- From Intersection Study
  - ❖ 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 have been found safe for pedestrians and bicyclists
    - Reduces confusion that exists at the all-way stop
    - Reduces speeds – Increased Safety

# Roundabout Safety

## ❖ Pedestrian / Bike

No serious injury or fatalities at any roundabout in Minnesota in the last 10 years.

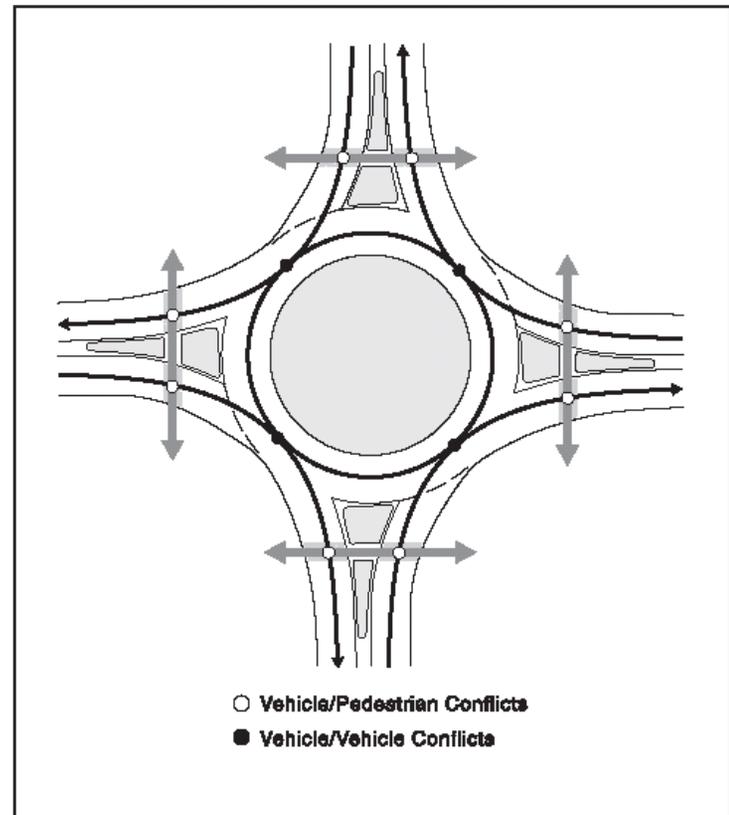
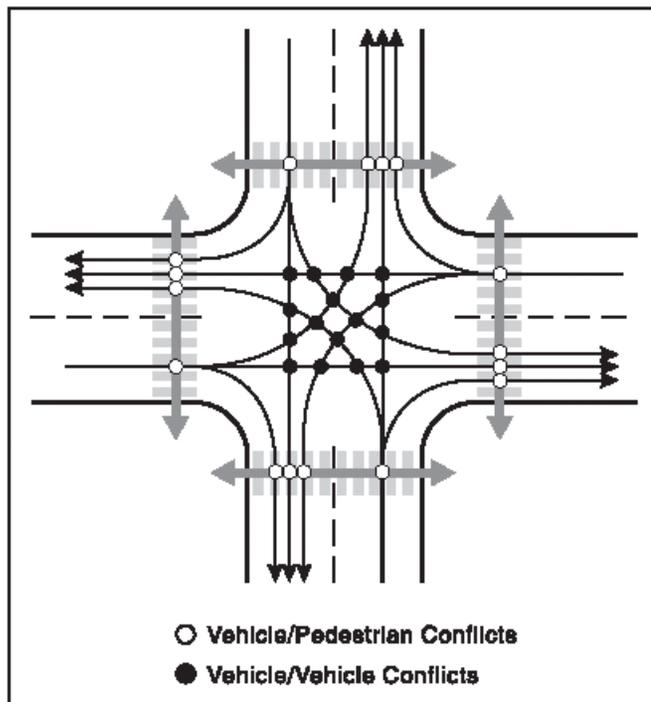
## ❖ Vehicles

In comparison to a traffic signal:

- 78% reduction in severe crashes; and
- 48% reduction in overall crashes.



# Increased Vehicle & Ped Safety



Source – Roundabouts: An Informational Guide (FHWA)





# Safety – Increased Ped Safety

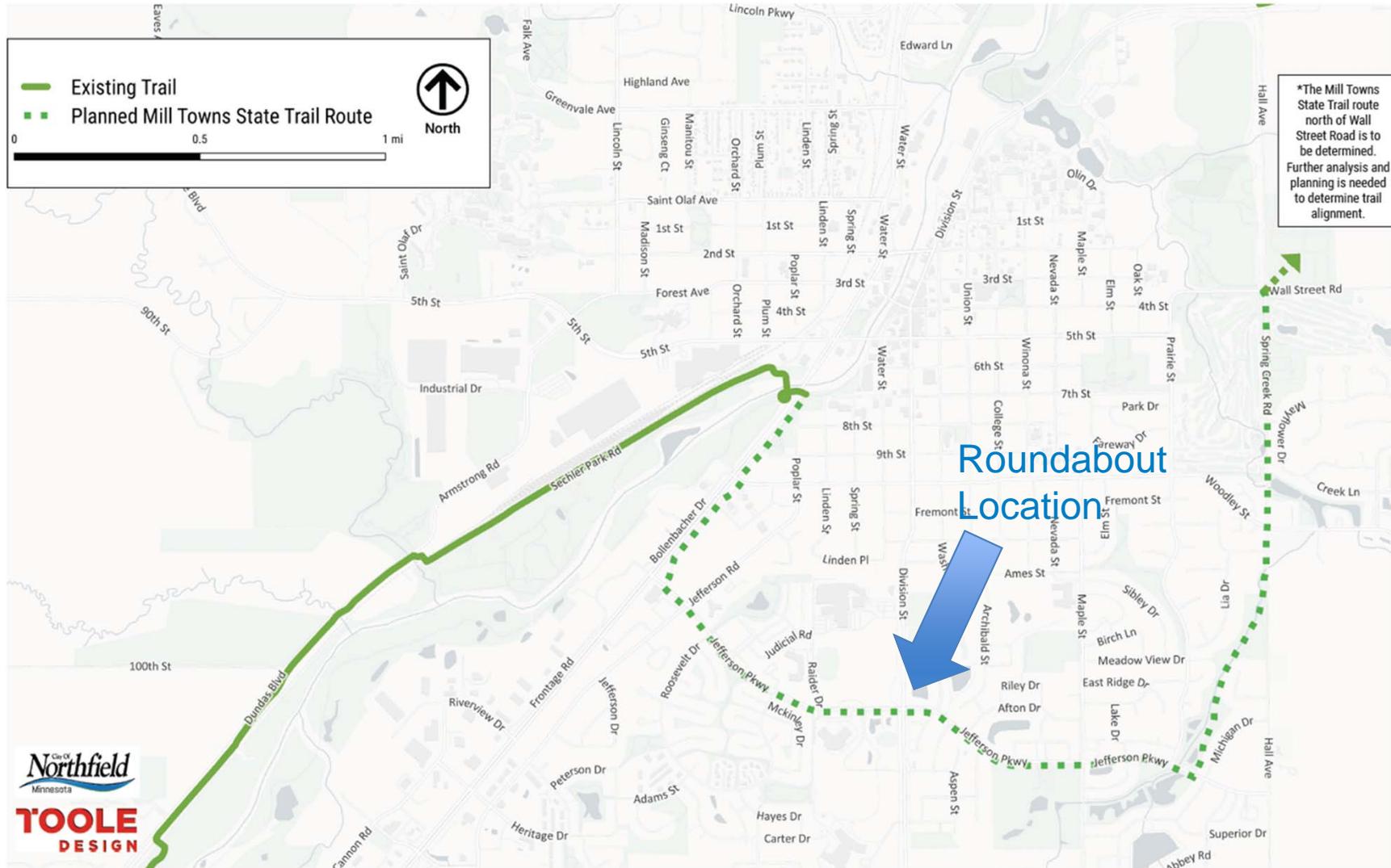
- Shorter crossing distance
- Pedestrian only looks one direction
- Drivers at signals watch the light
- Drivers at typical intersections tend to look left and turn right
- Pedestrian crossing separated from intersection – allows driver to pay more attention to pedestrian



# Mill Towns State Trail Route

## 2019 – Council adopted Mill Town Regional Trail Route

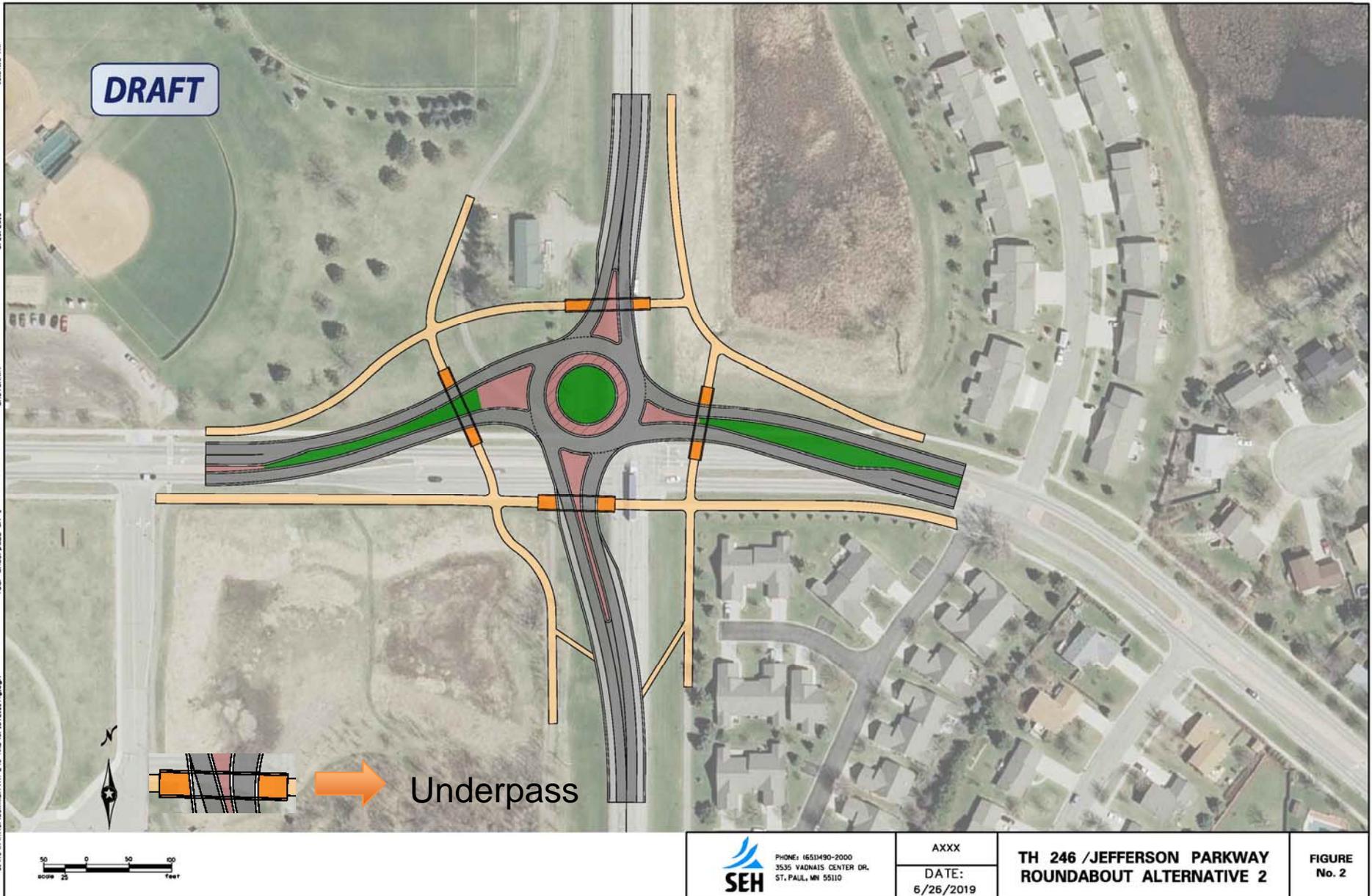
Mill Towns State Trail: Planned Route Through Northfield



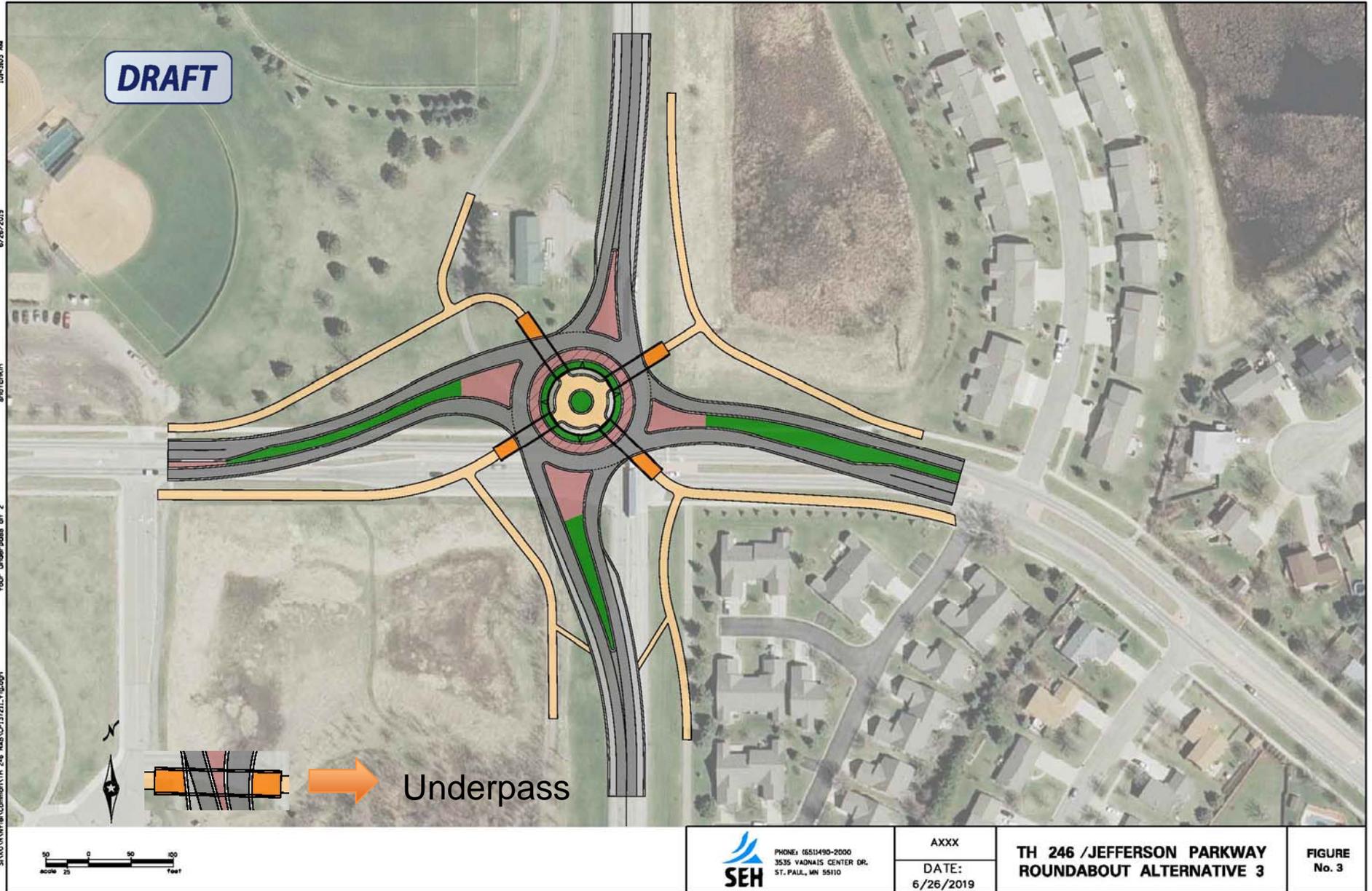
# Alternative 1



# Alternative 2



# Alternative 3



# Alternative 3





# High School Ped Crossing

- High School Crossing included in project costs for all alternatives.



# Costs

## ALTERNATIVE

1  
2  
3  
4

## PROJECT COST

\$ 2,970,000  
\$ 3,325,000  
\$ 3,368,000  
\$ 1,900,000

## PROJECT FUNDING

MnDOT's Local Partnership Program	\$483,480
MnDOT's Local Road Improvement Program	\$900,000
City Municipal State-Aid	<u>\$500,000</u>
Total Funding	\$1,883,480



# Schedule

- August 21: Open House/Public Input
- September 3: City Council Approves preferred alternative
- September: MnDOT Level 1 Design Approval
- November / December: Final Design
- January / February: Bidding
- May / June: Construction start

# Questions / Comments

Thank you

