

College Avenue Lane Reconfiguration Project

[Memorial Dr/Richmond St to Drew St]



City of Appleton
Dept of Public Works
2023

Concerns Raised by the Community

1. Left turn safety (poor sight lines & lack of arrows)
2. Drag racing
3. Speed
4. Traffic noise
5. Bikes & scooters on the sidewalks/no bike lanes
6. Getting stuck behind left-turning vehicles
7. Which lane should you be in if going straight?

So, what's the answer?

Lots of Constraints...

- Keep all existing on-street parking
- Can't widen street *(to add turn lanes or bike lanes)*
- Can't enforce our way to lower speeds (long term)
- Can't add left turn arrows in both directions at any given intersection



4-to-3-Lane Conversion Video

Credit: IowaDOT

(click on graphic below to watch video)



Lane Reconfiguration

1 lane each direction + center turn lane + bike lanes

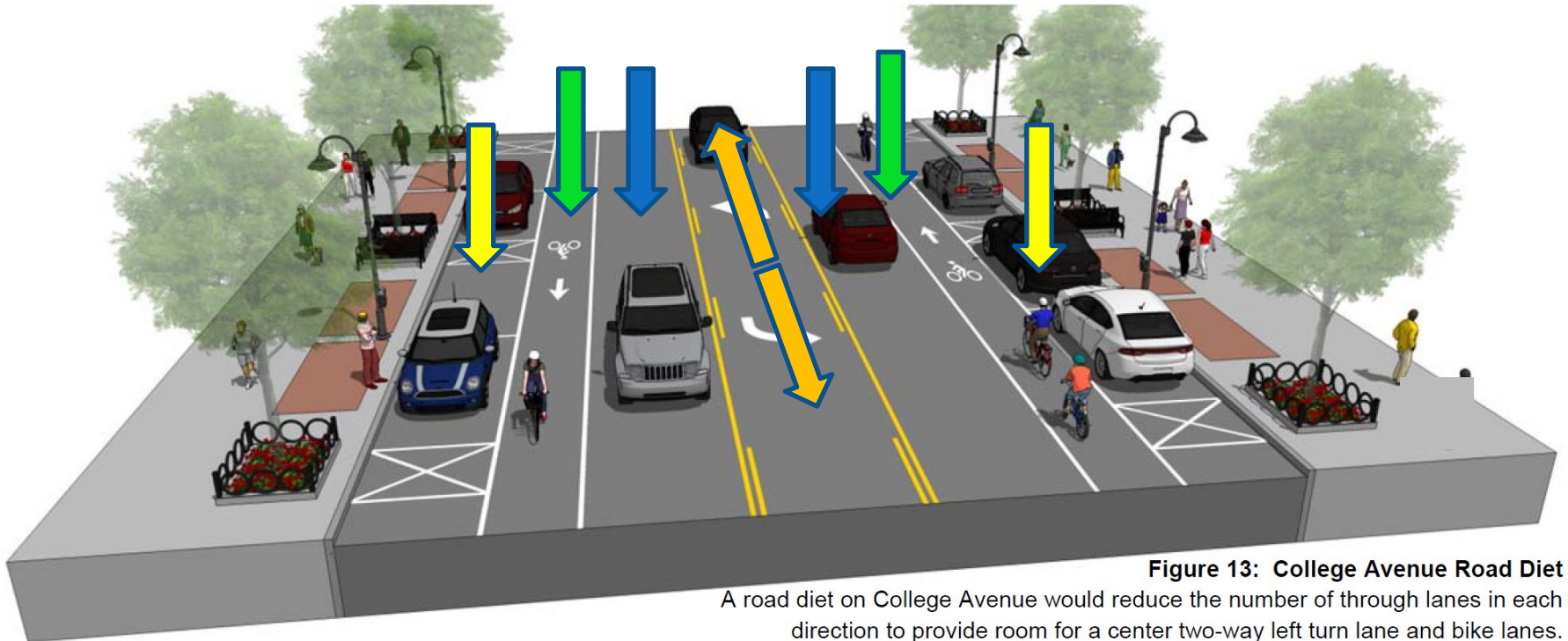
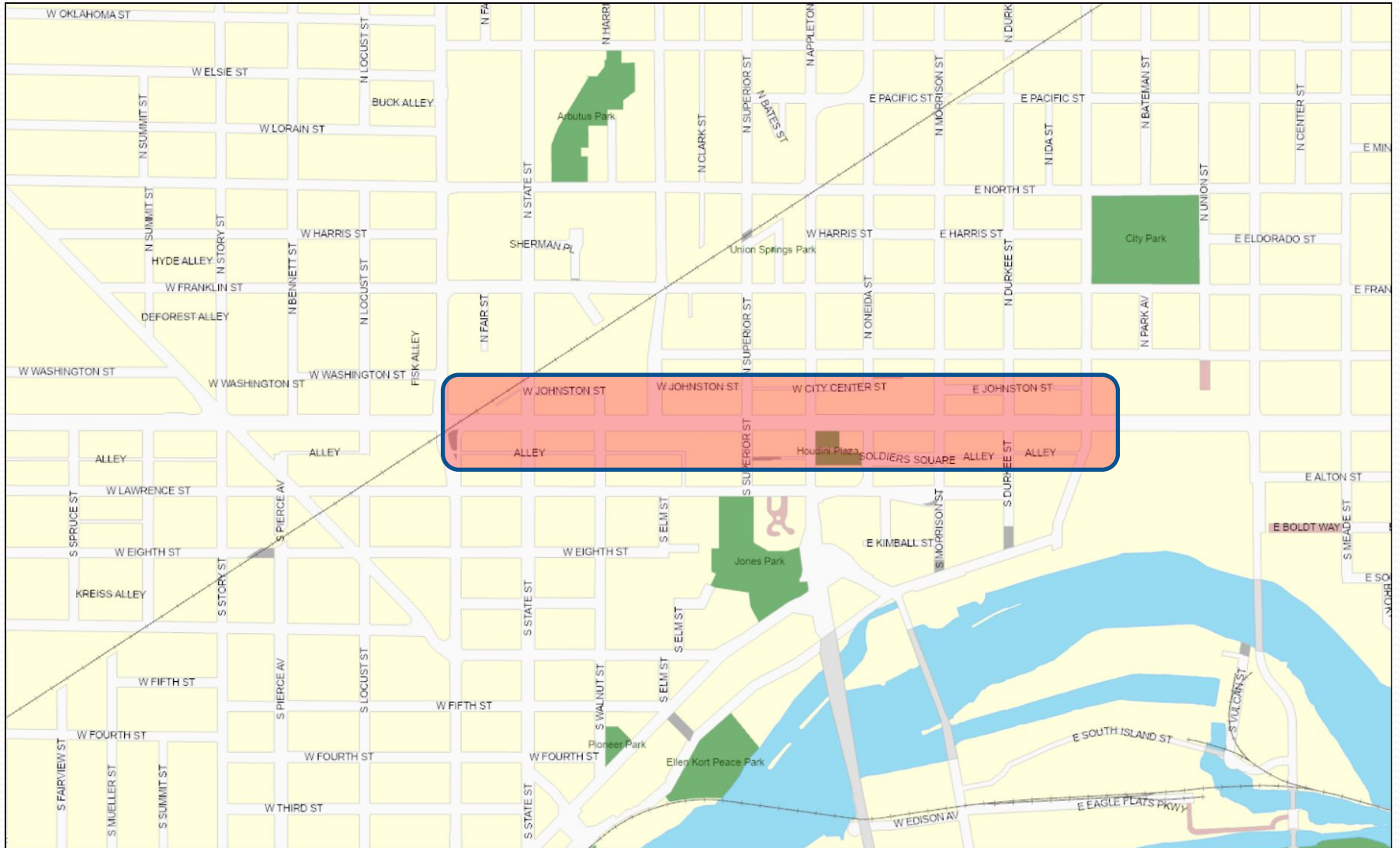


Figure 13: College Avenue Road Diet

A road diet on College Avenue would reduce the number of through lanes in each direction to provide room for a center two-way left turn lane and bike lanes.

AECOM

Project Area



Addressing College Avenue Concerns

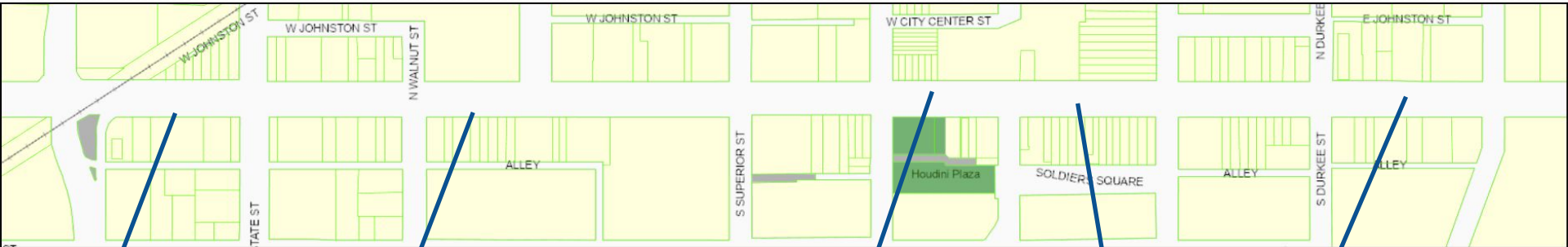
- Improved safety
 - Fewer overall crashes (19 – 47% reduction)
 - Safer left turns (and ability to add arrows in both directions)
 - Slower speeds
 - Smoother traffic flow
 - Eliminate drag racing
- Improved pedestrian environment
 - Ped crash reduction of as much as 80%
 - Reduced traffic noise
 - No bicyclists/scooters on the sidewalks
 - Easier/safer to get in and out of parked cars
- Improved environment for bicyclists, scooters, etc.
 - Dedicated lanes / system connections

Lane Reconfiguration

1 lane each direction + center turn lane + bike lanes

- Successfully used throughout the country with traffic volumes below 20,000 with little to no additional congestion
- Pre-COVID College Av traffic volumes range from 12,800 to 13,700 vehicles per day (*post-COVID volumes are about 20% lower*).

Historical Traffic Volumes



1955: 14,700
1969: 11,000
2022: 13,700

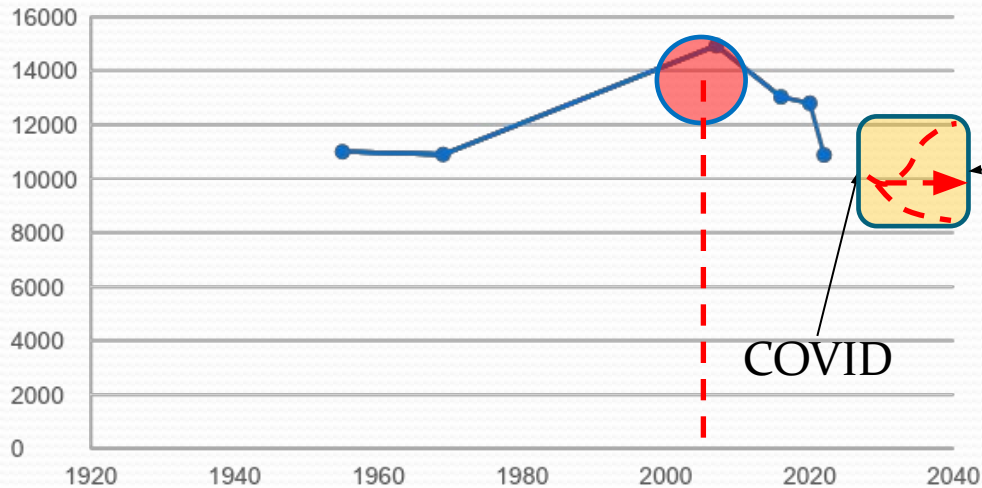
1955: 11,900
1969: 12,700
2007: 16,000
2019: 13,500

1955: 10,700
1969: 10,000
2004: 13,200
2016: 14,300
2020: 12,800

1955: 9,300
1969: 9,300
2007: 13,900
2020: 12,800

1955: 8,400
1969: 11,500
2004: 14,000
2007: 14,900
2016: 13,100

Corridor ADT



Traffic Analysis

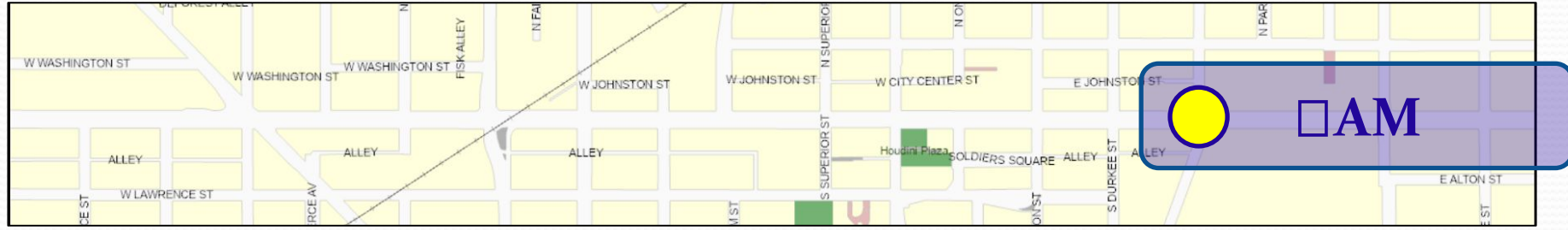
Context & Scope

- Pre-COVID Counts
- AM & PM Peak Hour
- No change in driver behavior and patterns
- Used simulation software to predict & quantify
- Iterative process - Traffic Signal adjustments
- Sensitivity checks

What will traffic be like?

Traffic Analysis

What will traffic be like?



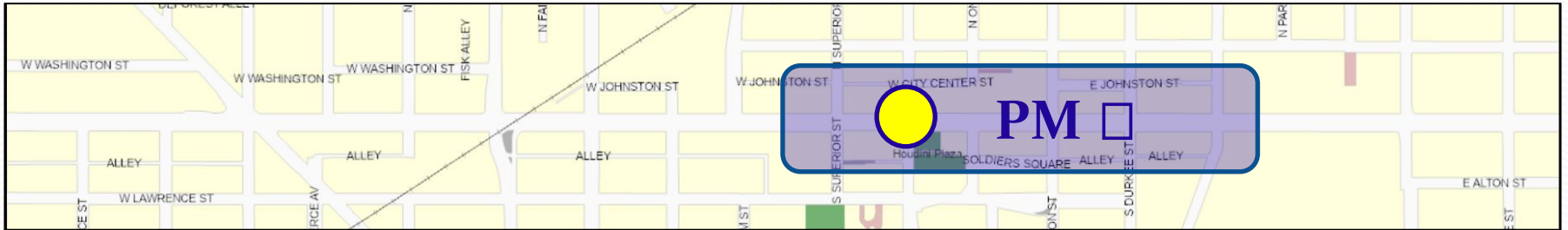
AM Peak:

(click on graphic below to watch video animation)



Traffic Analysis

What will traffic be like?



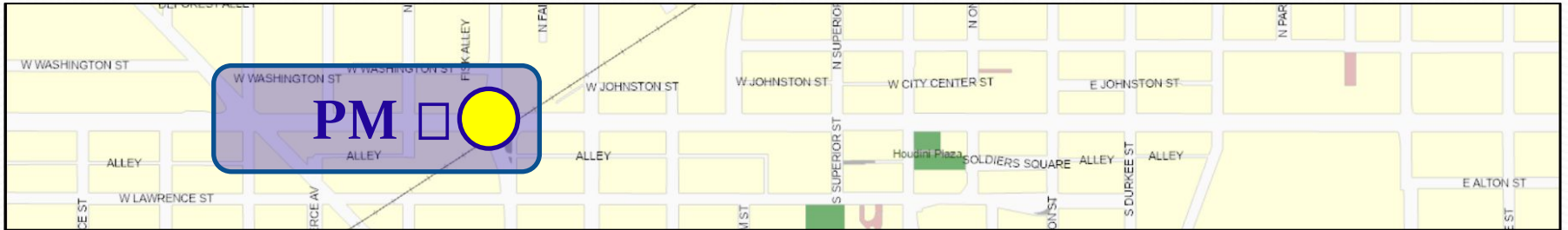
PM Peak:

(click on graphic below to watch video animation)



Traffic Analysis

What will traffic be like?



PM Peak:

(click on graphic below to watch video animation)



Traffic Analysis

Sensitively Check

- Franklin Street can accommodate an additional traffic with relative ease.
- If 100 VEH turned left at Richmond instead, operation improves.

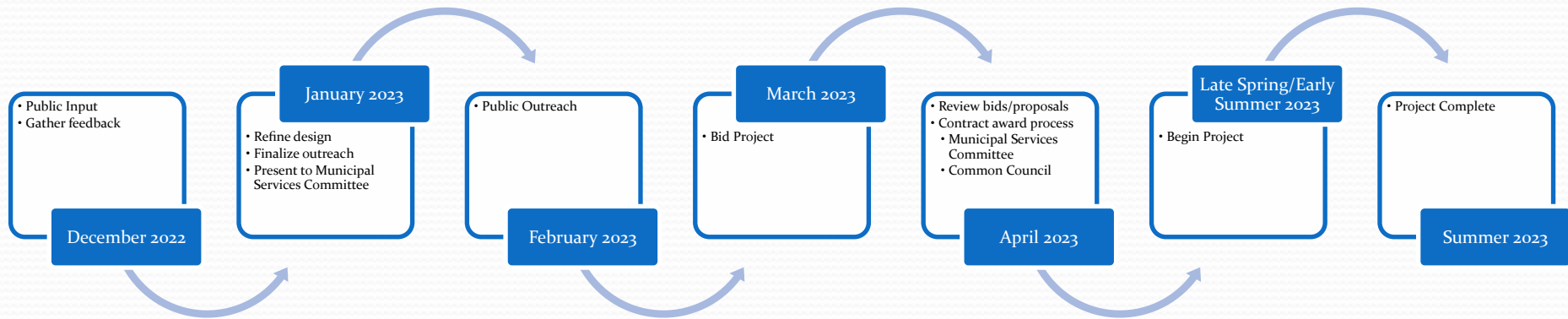
(click on graphic below to watch video animation)



Additional Considerations

- Special Events
- Railroad
- Parking Maneuvers
- Deliveries
- Growth and Development

Projected Timeline



Performance Review & Feedback intervals:
December 2023 and June 2024

What would this cost?

College Avenue Restriping Project

- Construction:
 - \$70,000 Pavement Marking Project
 - \$55,000 Signal Improvements
- Contingency:
 - \$5,000

Total Cost = \$130,000

Overall Goals and Benefits

- Improve Safety, Access and Mobility for all road users at a low cost.
 - Reduce the number of vehicle conflicts;
 - Reduce the number of conflicts between motor vehicles and other road users;
 - Decrease the number of vehicle travel lanes for pedestrians to cross. ¹
- Reduce aggressive speeding and vehicle speed differentials that lead to crashes.
- Provide the opportunity to install bicycle lanes, while maintaining the current on-street parking. ²
- Increase and enhance business activity by reducing traffic speeds. ²
- Create a more livable and pleasant neighborhood, boost property value and the local economy. ³
- Overall traffic growth and further development may prompt the use of the entire Downtown Network, fitting with the City's Mobility Study.

1: Wisconsin Department of Transportation

2: FHWA Proven Safety Countermeasures

3: AARP Livability Fact Sheet

Questions?

