

Downtown Watertown One-way to Two-way Streets Conversion Study

Committee of the Whole Meeting

January 20, 2026



Presentation Outline

- Study scope and process
- One-way vs. Two-way
- Existing one-way system
- Operational analysis (3rd/4th Street)
- Design Concepts (roadway, multi-modal)
- Parking Study
- Recommendations Summary/Cost Estimates

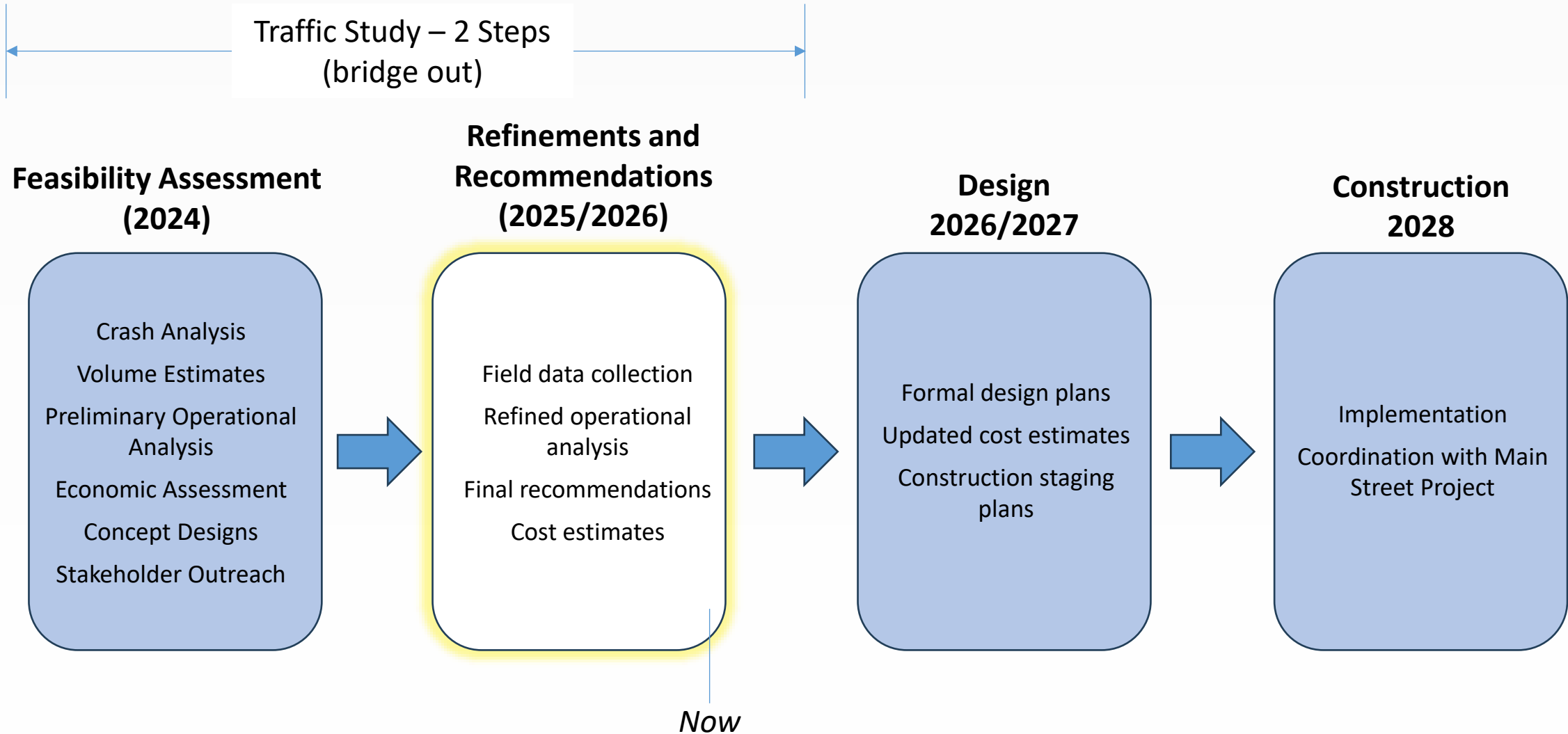


Study Scope and Goals

- Study area - downtown one-way streets
- **Convert** (revert) to two-way streets
- Feasibility – Safety, Operations, Design
- **3rd Street/4th Street** analysis
- Local residential street evaluation
- Multi-modal / All users



Study Process



Study Progress

- Preliminary Study – August 2024
- Committees Review & Council Approval – August 2024
- Staff update meeting – September 2024
- Public Involvement Meeting – November 2024
- Updated traffic counts and parking counts – May 2025
- Staff update meeting – July 2025
- Refine recommendations and formal/final report – November 2025
- Committee of the Whole Presentation – January 2026

One-way vs Two-Way: Why consider a change? Tradeoffs?

- One-way
 - + Higher vehicular capacity
 - Faster travel speeds
 - + Shorter travel times
 - Potential for wrong-way movements
 - + Simplified pedestrian crossings (single travel direction)
- Two-way
 - + **Reduced/safer travel speeds in urban areas**
 - Longer travel times
 - + Simplified circulation for motorists
 - + More direct access to destinations & businesses
 - + Improved business visibility
 - + Fewer signs
 - + Improved conditions for non-vehicle users (slower speeds)



Other Communities

Janesville, Manitowoc, Racine, Milwaukee, Waukesha

- Slower travel speeds
- Better for business
- More inviting conditions for pedestrians and bicyclists
- Few complaints or incidents
- Quick adjustment period – **advanced outreach** is key



Public Involvement Meeting

- Held November 14, 2024
- Preliminary operational analysis and concept design plans
- Feedback generally positive
 - Supported lower speeds and more direct routing
 - Pedestrian enhancements would be an improvement
- Concerns included
 - Loss of parking
 - Truck maneuverability (issues today)
 - Impacts to specific blocks (residential streets)

Existing System

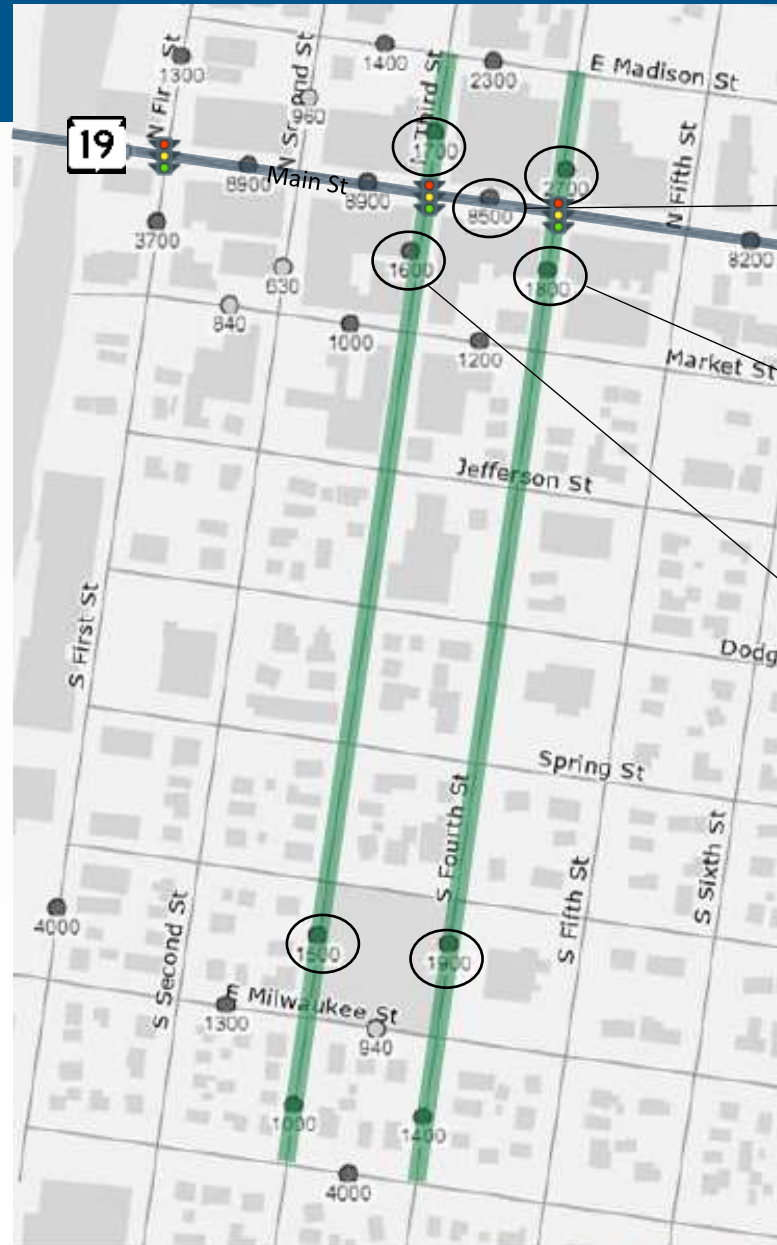
- Multiple one-way pairs
- **Discontinuity**
- User **confusion**, wrong-way movements
- Originally implemented in 1970's to address increased volumes and congestion



Daily Traffic

Current daily traffic

3rd Street & 4th Street are **significantly underutilized** for multi-lane roadways



Main Street:
8,500 vehicles per day (vpd)

4th Street:
1,800 to 2,700 vpd

3rd Street:
1,500 to 1,700 vpd

Comparison volumes:

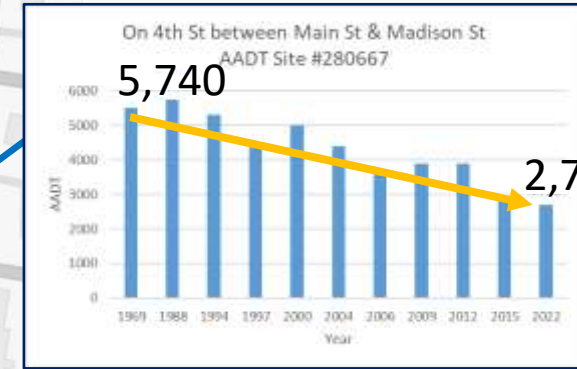
- Church St (near PnS): 12,400 vpd
- 1st St: 4,000 vpd
- Cady St (at river): 5,800 vpd
- Market St: 800-1,200 vpd
- Typical residential street: 400-800 vpd
- Two-lane urban capacity: 6,500-10,000+ vpd

Source: WisDOT Traffic Count Map

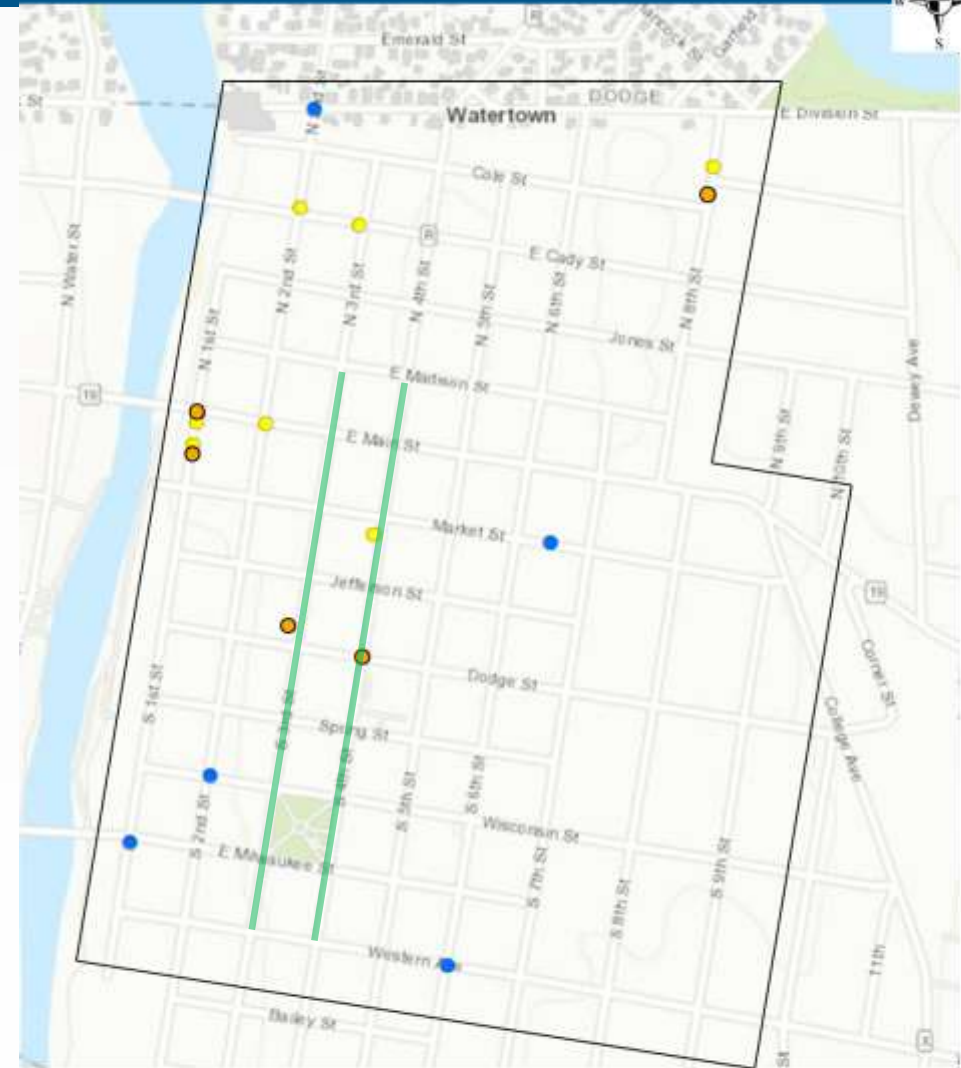
Daily Traffic

Historic daily traffic

- **Downward** trend since early 1990's
- Volumes today about **one-half** of peak



Crash History



Crash Type								Severity				Total	
Rear End	Angle	Side Swipe	Fixed Object	Head On	Parked Vehicle	Other	Ped/Bike	Property Damage Only	Injury				
									K	A	B	C	
36	140	22	38	6	70	4	15	275	1	4	29	22	331

Crash Type Key:			
Yellow dot	Head On (FTF)		
Orange dot	Pedestrian Crash		
Blue dot	Bicycle Crash		

Operational Analysis: Two-way System Summary (3rd/4th St)

- Acceptable peak-hour operations (two-way) and surplus capacity
- Daily traffic well within capacity range for two-way streets
- 3rd Street/4th Street can operate as two-way streets



Operational Analysis: Two-way (3rd/4th St with Main St)

2025 Analysis

Weekday Peak Hour Level of Service – Highway Capacity Manual

AM (PM)

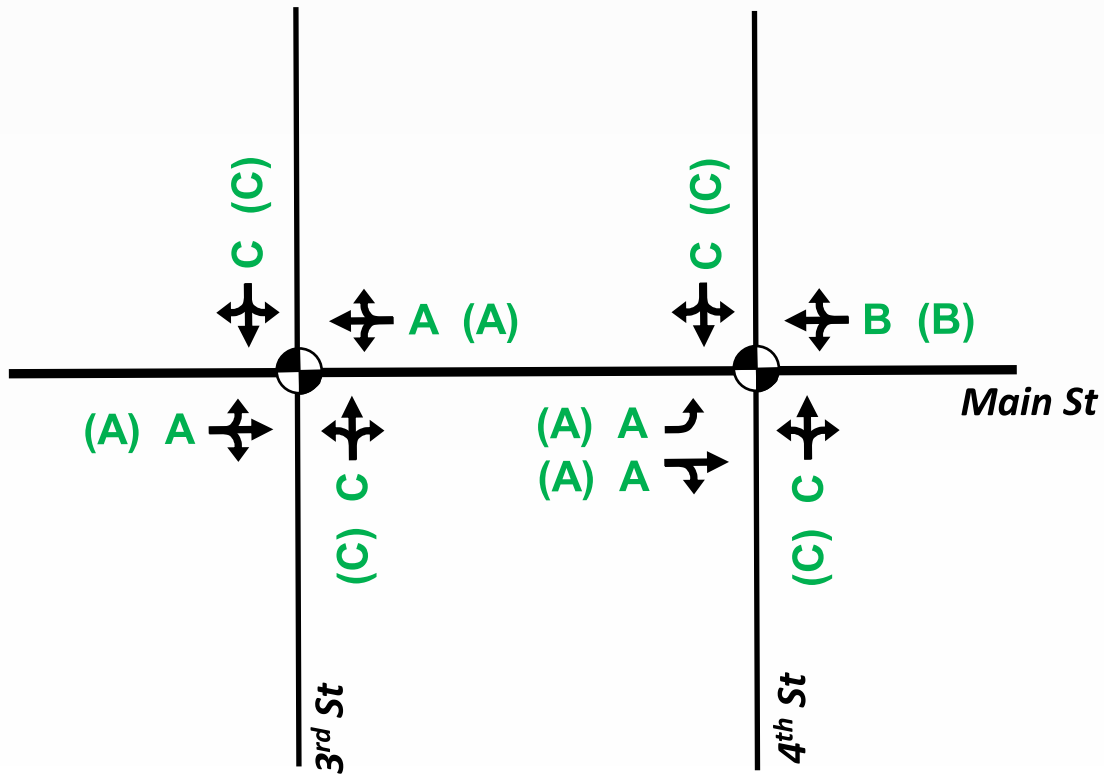


Exhibit 19-8: LOS Criteria: Motorized Vehicle Mode

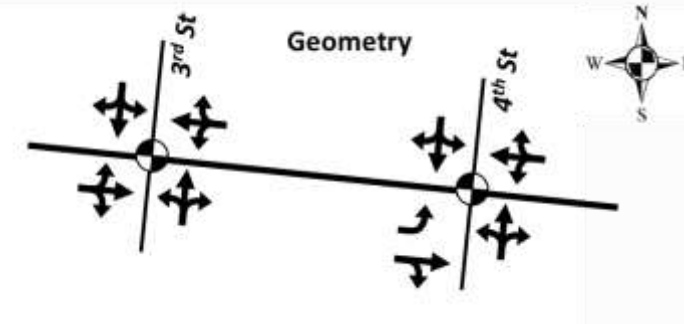
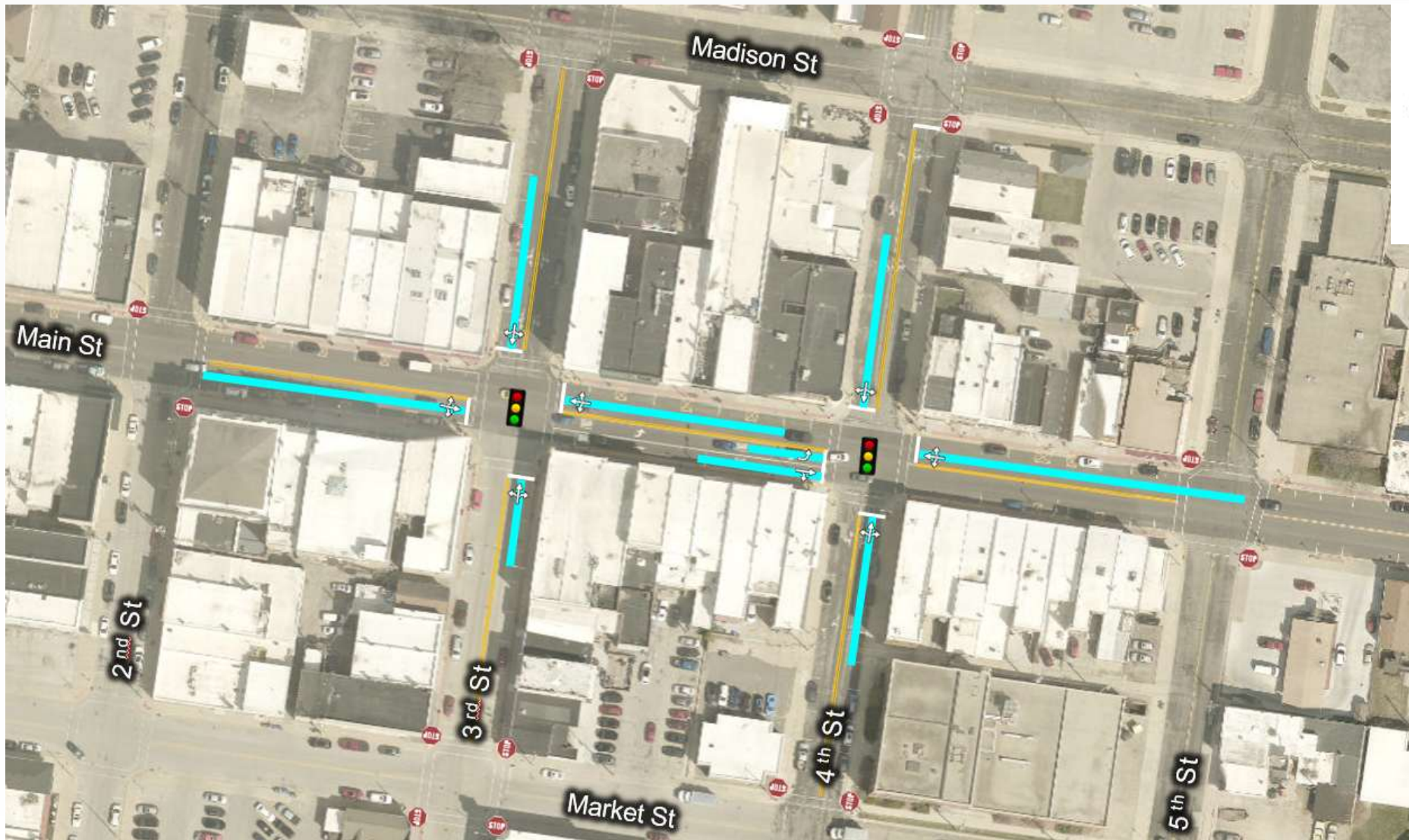
Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio ^a	
	≤1.0	>1.0
≤10	A	F
>10–20	B	F
>20–35	C	F
>35–55	D	F
>55–80	E	F
>80	F	F

Note: ^a For approach-based and intersectionwide assessments, LOS is defined solely by control delay.

Operational Analysis: Simulation & Left-turn Evaluation

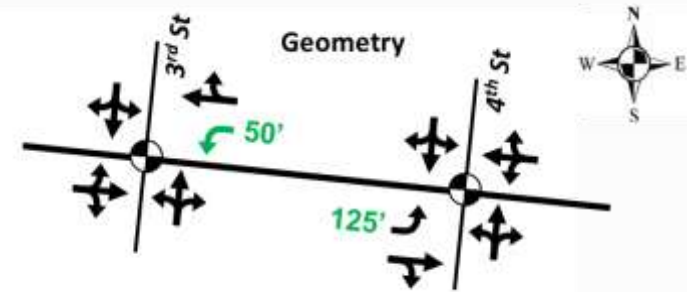


Left-turn Evaluation: Option #1 (no new turn lanes)



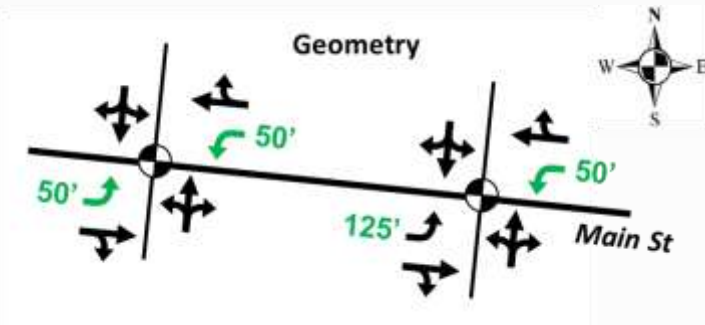
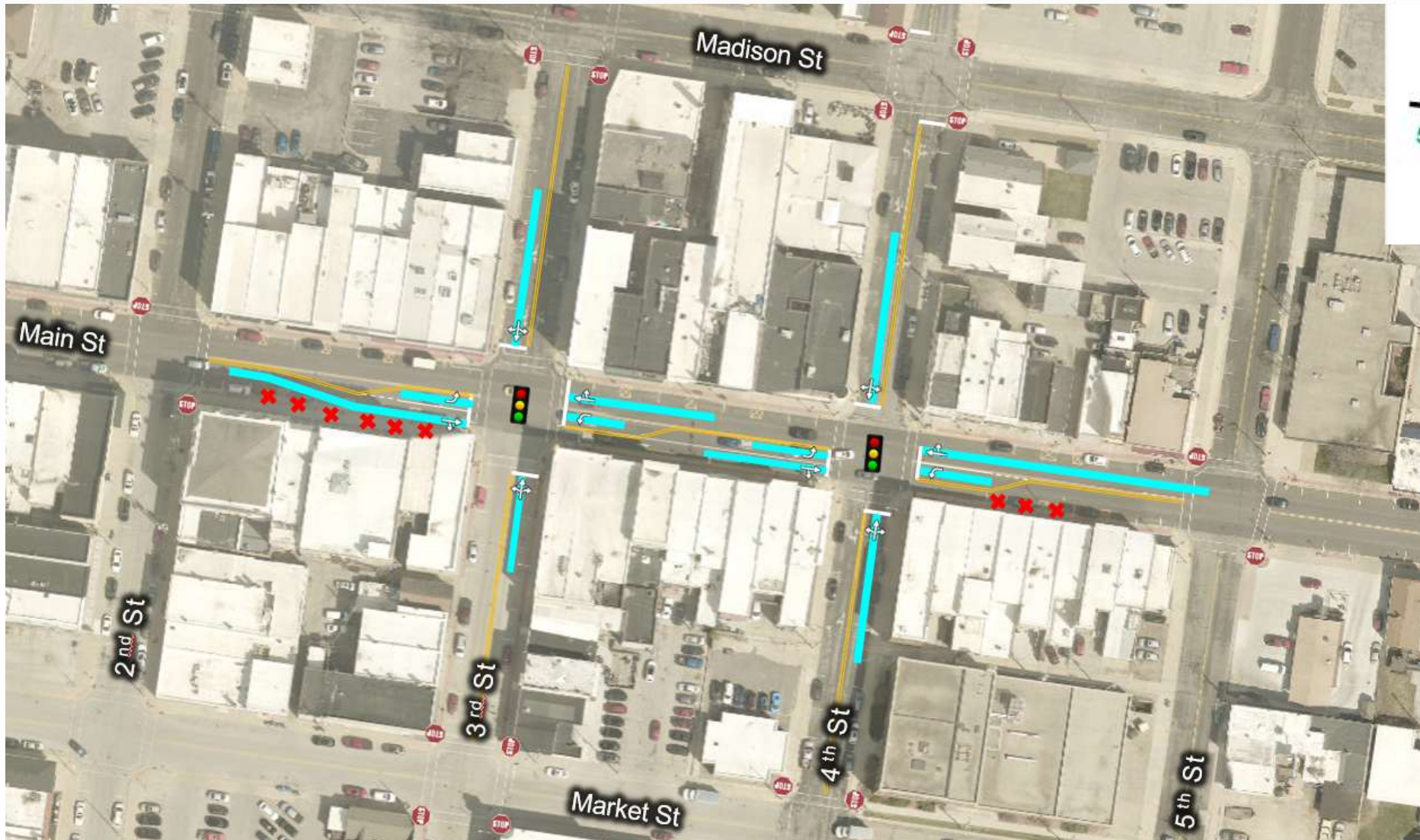
- Synchro 'typical' queues
- SimTraffic simulation queues
- × Parking loss

Left-turn Evaluation: Option #2 (one new turn lane)



- Synchro 'typical' queues
- SimTraffic simulation queues
- × Parking loss

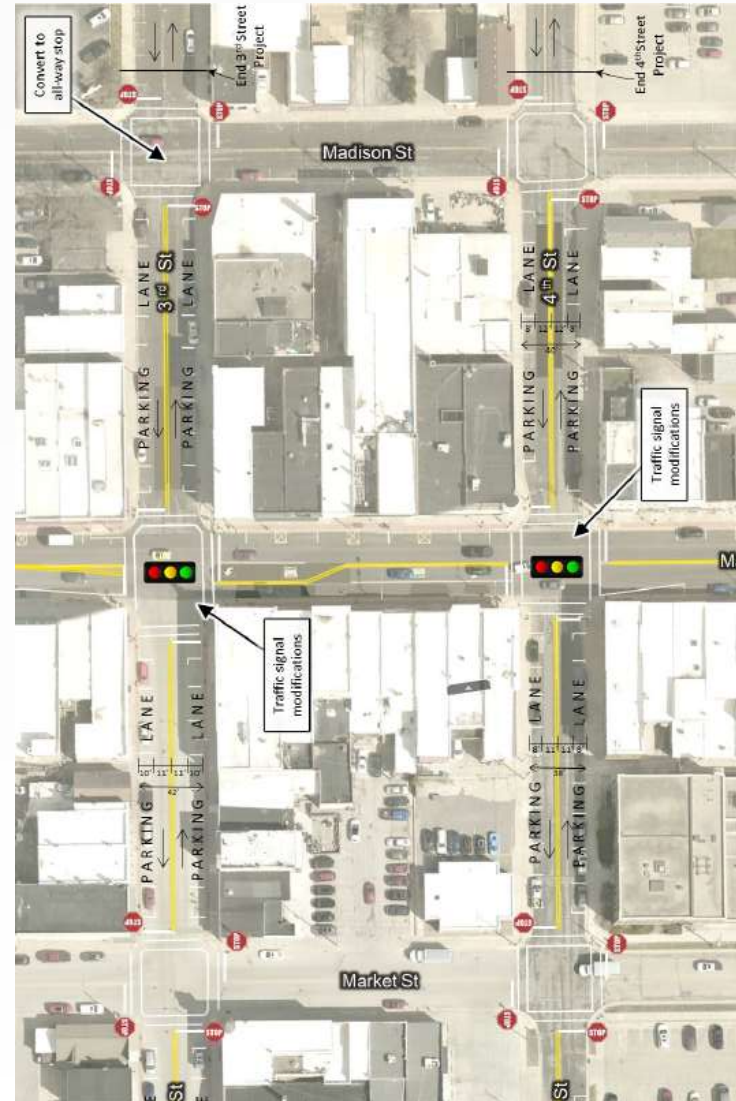
Left-turn Evaluation: Option #3 (three new turn lanes)



- Synchro 'typical' queues
- SimTraffic simulation queues
- × Parking loss

Design Concept Two-way System (3rd/4th Streets)

- “Paint and Sign” project
- New double-yellow centerline
- New signs and signing changes
- Existing parking lanes maintained
- New pavement seal coat (4th St)
- New signalized approaches



Pedestrian Accommodations

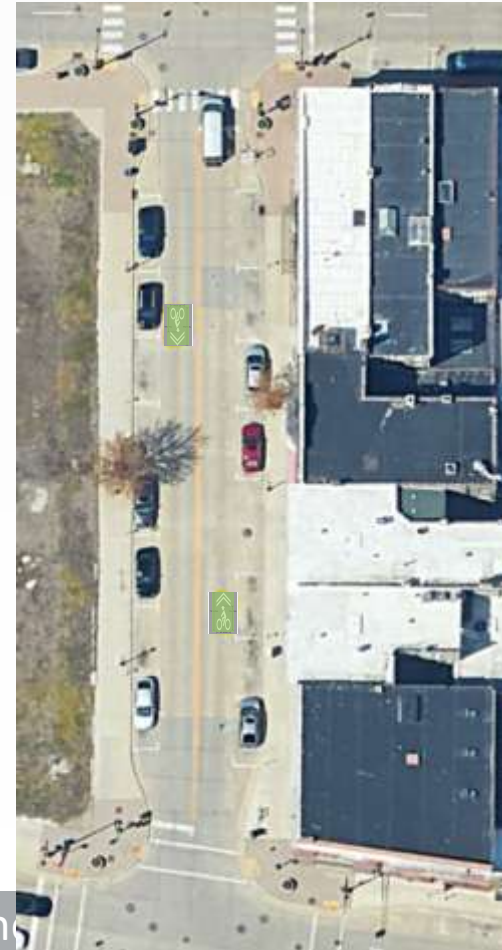
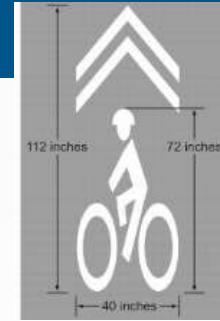
Crosswalk Enhancements (for consideration)

- Paint/Post curb extensions
- High visibility crosswalks



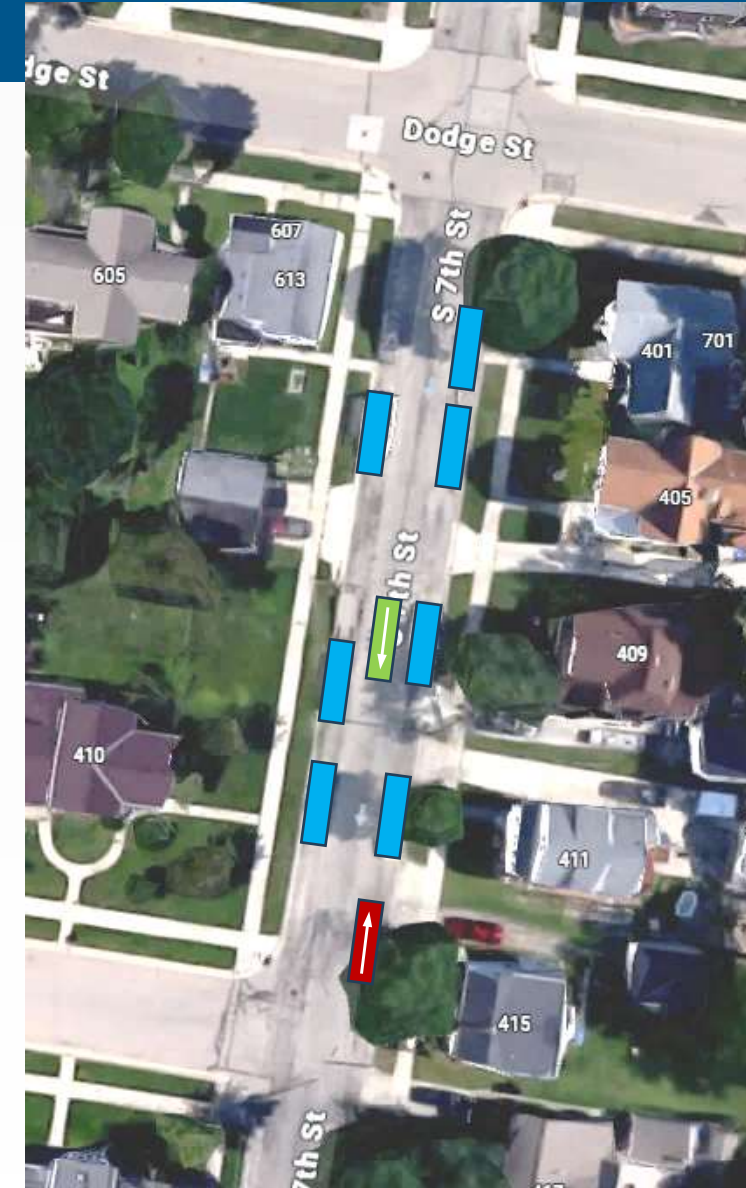
Bicycle Accommodations

- Insufficient width on 3rd/4th St for dedicated bicycle lanes (need roadway widening or remove parking)
- Use of 'sharrows'/shared bike operation instead of dedicated lanes
- Other roadways
 - Dedicated bike lanes (1st St)
 - Bike boulevards (2nd, 5th, etc.)
- Ensure conformity to City's future Bike and Pedestrian master plan



Local Residential Street Evaluation

- Functionality Review based on roadway width FOC to FOC (face-of-curb to face-of-curb)
- Minimum width for residential streets with parking on both sides is **26'** to **28'**
- Drivers may need to/choose to yield to traffic – comfort
 - **Less than 30'**: Most drivers will not drive side-by-side
 - **Widths 30' to 32'**: Most driveway will drive side-by-side
 - **Widths of 32'+** provides min9' travel lanes
- Generally infrequent conflicts (residential use, low volume and parking occupancy, short trips, low speeds)



Parking Study

- Study area: 2nd St to 5th St, Market St to Madison Street
- 187 on-street spaces, 187 public lot spaces
- Data collection May 29 (Thur) and May 31 (Sat)
11am, noon, 1pm & 4pm, 5pm, 6pm 7pm
- Peak hour parking occupancies:
 - **Thursday midday (11:00am) – 52%**
 - Thursday evening (7:00pm) – 51%
 - Saturday midday (11:00am) – 44%
 - Saturday evening (7:00pm) – 46%



Parking Occupancy

Thursday Midday Peak Hour (11:00AM to Noon)



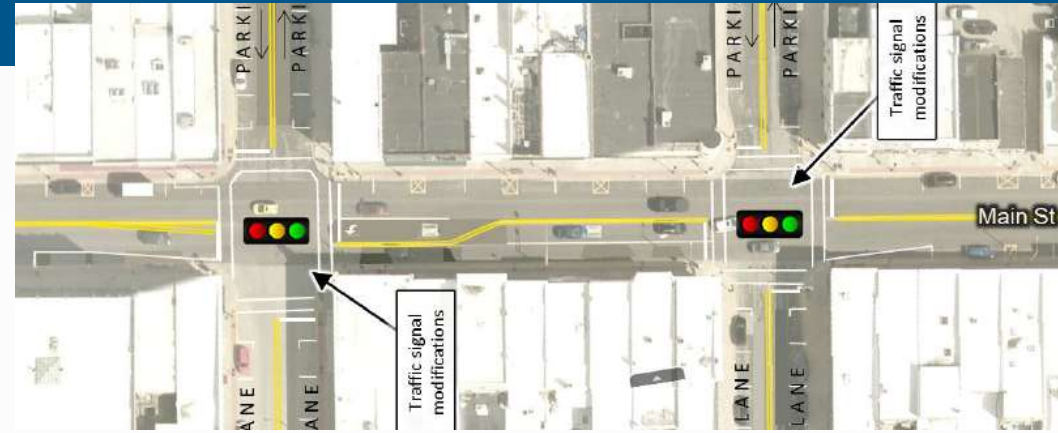
Saturday Evening Peak Hour (7:00PM to 8:00PM)



- = <50% Occupancy Rate
- = 80% - <100% Occupancy Rate
- = 50% - <80% Occupancy Rate
- = 100%+ Occupancy Rate
- XX% = Peak Parking Occupancy Rate

Recommendations Overview

- Convert 3rd Street/4th Street into two-way streets (one through travel lane in each direction)
- 3rd Street/4th Street Intersections with Main Street
 - Option #2 (one new left-turn lane – WB 3rd/Main)
 - Maintain signal control with similar timings/phasing
 - Equipment to be replaced as part of the Main St project
- 3rd Street/Madison Street – convert to all-way stop control (sight distance limitations)
- New seal coat (4th Street) for better pavement marking application
- Consider pedestrian enhancements and bicycle accommodations (conform to standards in the City's future Bike/Ped master plan)
- Consider local street conversion to two-way operations (sufficient width, review for impacts and compliance with ordinance/standards)



Cost Estimate

- \$175,000 to \$225,000 for conversion of 3rd Street/4th Street
- Assumptions:
 - Removal/installation of pavement markings
 - Installation of signs (removal by city staff)
 - Asphalt Pavement seal coat (4th Street and other locations)
 - High visibility crosswalks and paint/post curb bump outs
 - Temporary traffic control signs and staging (single lane closures each direction)
 - Main Street roadway/signal work excluded (part of state project)

Questions?

raSmith
CREATIVITY BEYOND ENGINEERING



THE CITY OF
WATERTOWN
Opportunity runs through it.