



**INRCOG**

Iowa Northland Regional  
Council of Governments

# Draft Waterloo Pedestrian Plan

## Waterloo City Council Work Session

Monday, December 6<sup>th</sup>, 2021

**INRCOG | PARTNERS FOR PROGRESS**

*Developing Strong Local Government through Regional Cooperation*

229 E Park Avenue | Waterloo Iowa 50703 | P (319) 235-0311 | F (319) 235-2891 | [www.inrcog.org](http://www.inrcog.org)

# History of Waterloo Complete Streets Advisory Committee

- 2013: *Complete Streets Policy* approved by City Council
- 2013: CSAC formed
- 2014: *Complete Streets Policy* recognized by Smart Growth America as a “Best Complete Streets Policy of 2013”
- 2018: Administrative rules adopted

# City Council Mandate to CSAC

- The Waterloo City Council has asked CSAC to create a **Waterloo Pedestrian Plan**

# Plan Components



Priority Sidewalk Infill  
Areas

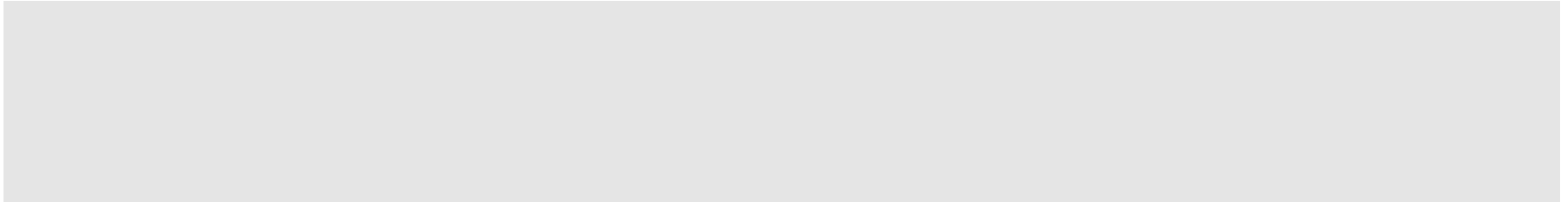


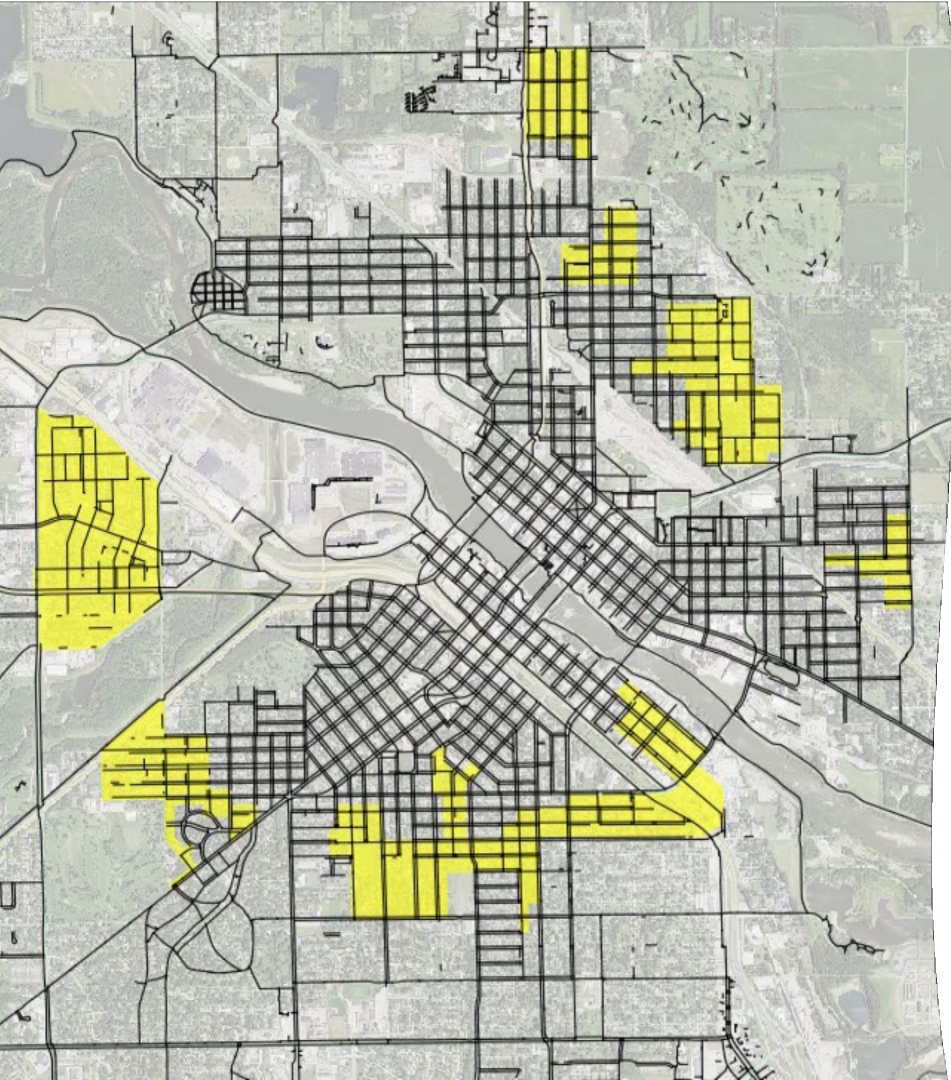
Policy  
Recommendations



Scoring Matrix

# Priority Sidewalk Infill Areas



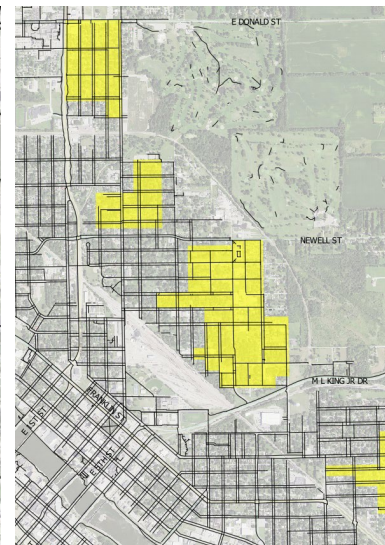
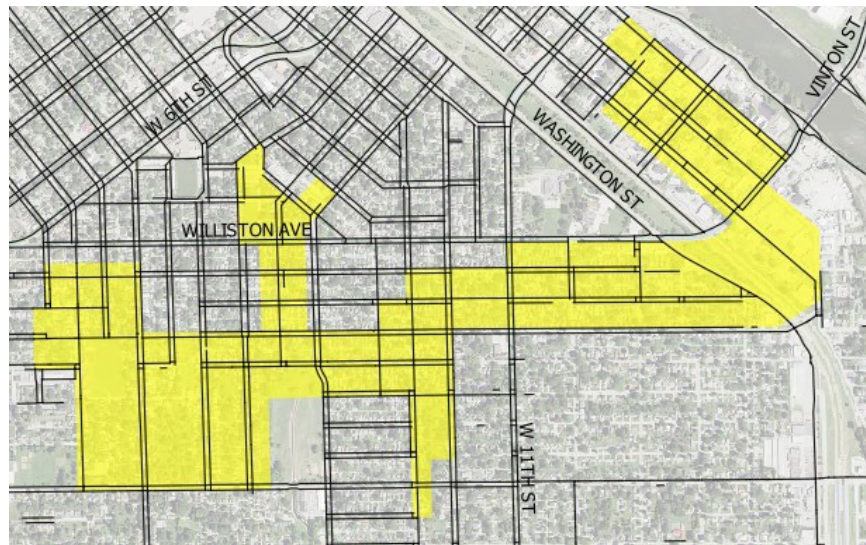
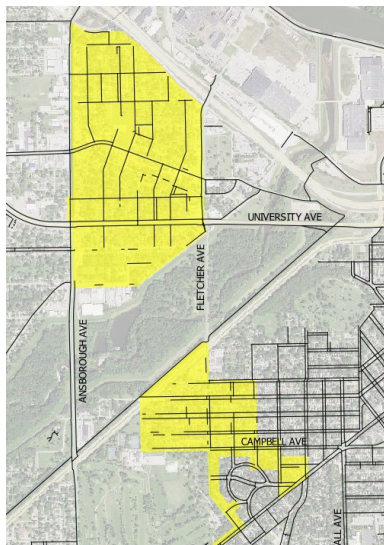


## Priority Sidewalk Infill Areas

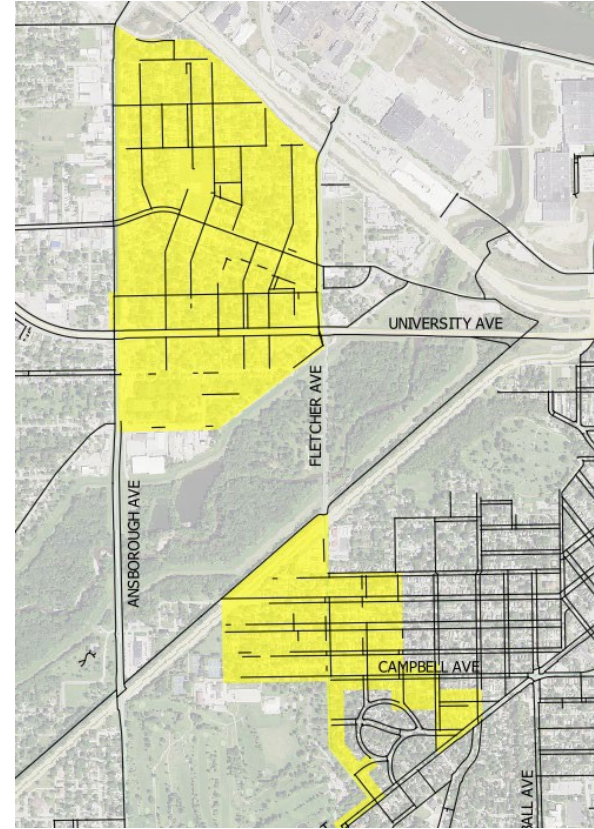
- Improve pedestrian connections
  - Neighborhood destinations
  - Transit
  - Recreational opportunities
- High impact areas
  - Where people are walking
  - Greater safety issues



# Priority Sidewalk Infill Areas

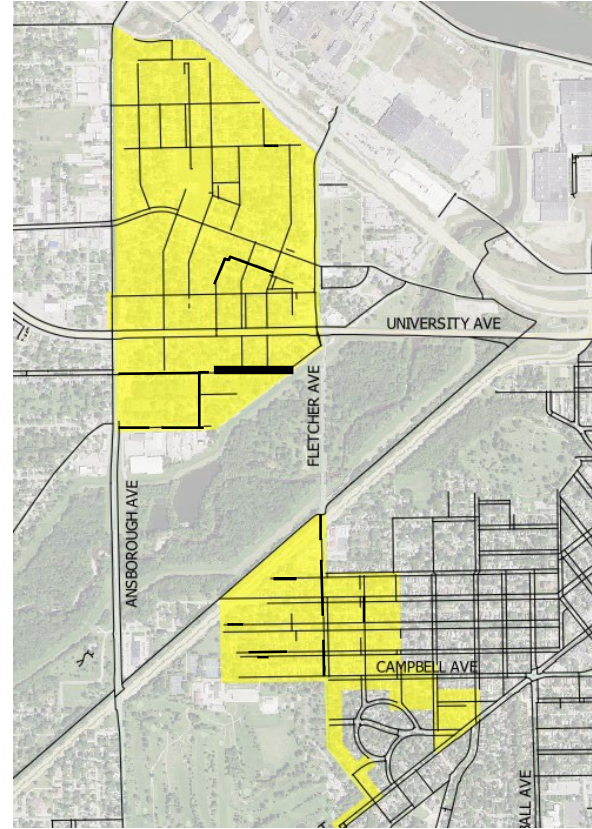


# Priority Sidewalk Infill Areas

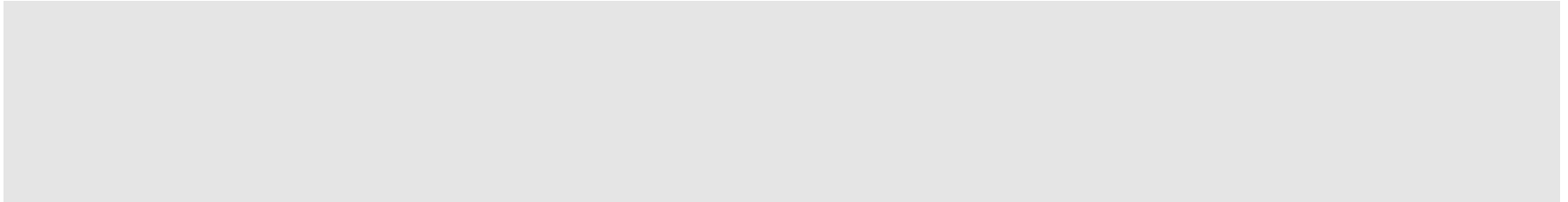


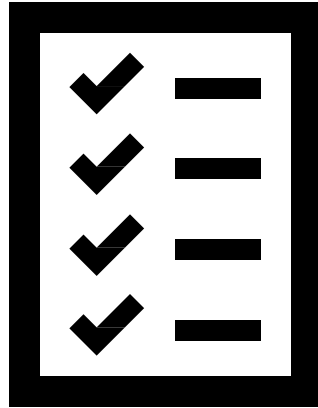


# Priority Sidewalk Infill Areas



# Policy Recommendations





# Policy Recommendations

- Priorities to improve walking conditions for residents and visitors
- Guided by federal, state, and local best practices
- Align with draft MPO Pedestrian Master Plan
- Categories:
  - General
  - Planning & Zoning
  - Engineering
  - Traffic Control
  - Other

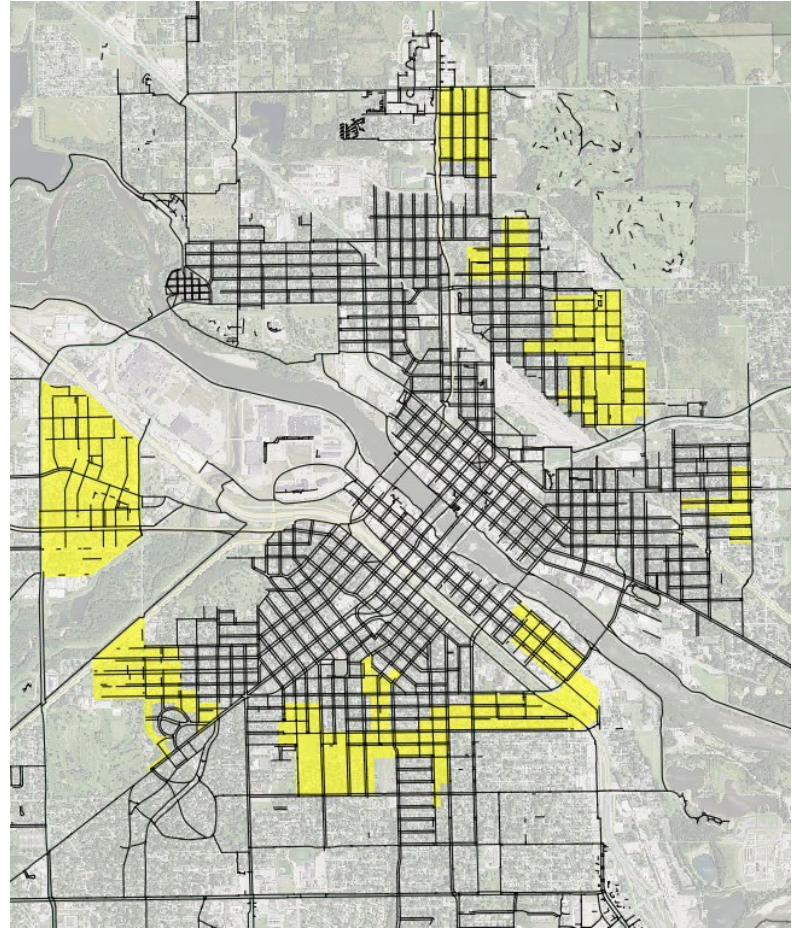
# General Recommendations



# 1. Prioritize sidewalk construction and infill needs identified in Priority Infill Areas

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- High impact areas
- Where people are walking
- Safety issues



## 2. Establish a dedicated funding source for sidewalk maintenance

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- Alternative funding sources
- Costs spread out over time

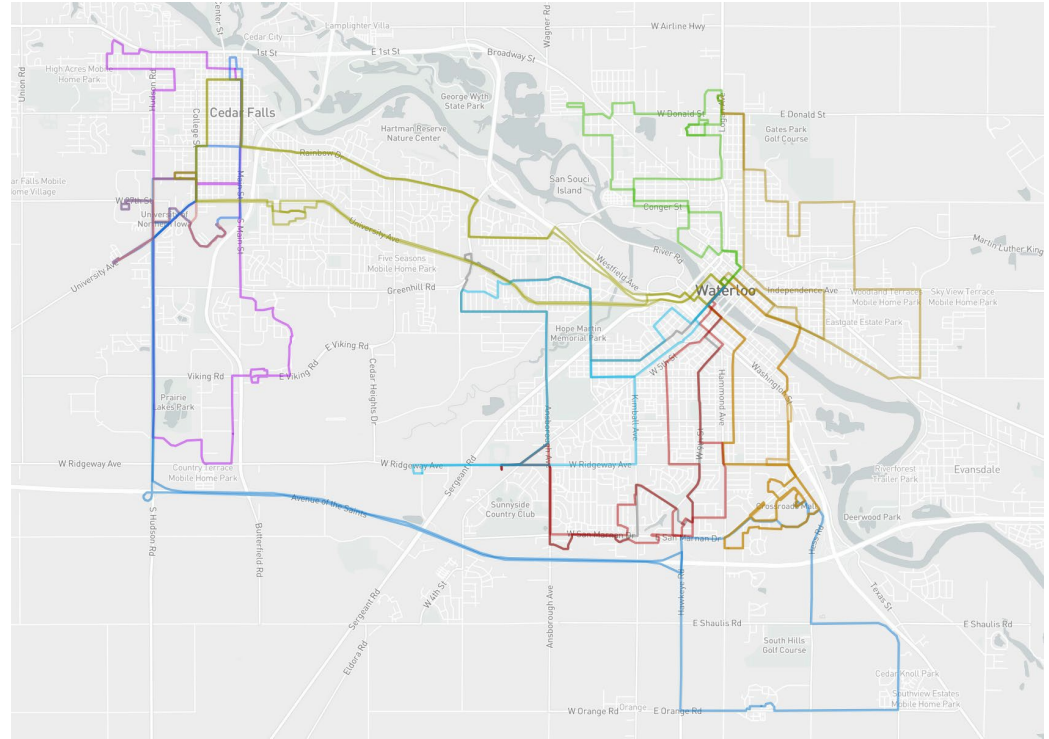




### 3. Restructure and expand MET Transit Service

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- Reduced travel times
- Easier navigation
- Improved service
- Set for Summer 2022



## 4. Revise snow removal policy and enforcement practice

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- Uncleared sidewalks are dangerous
- Vacant properties
- Residents unable to shovel

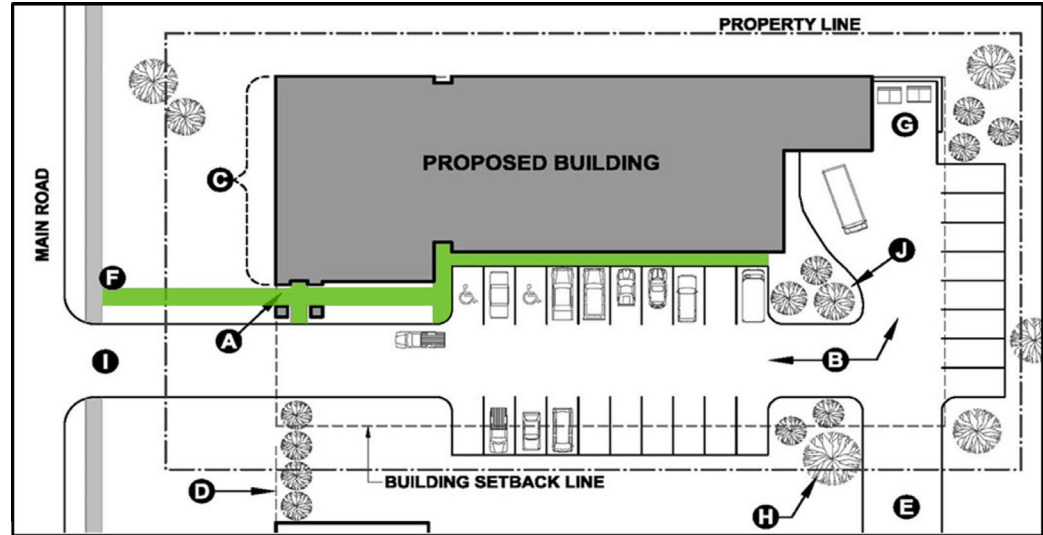


# Planning & Zoning Recommendations



# 1. Encourage sidewalk connections in site planning for new development

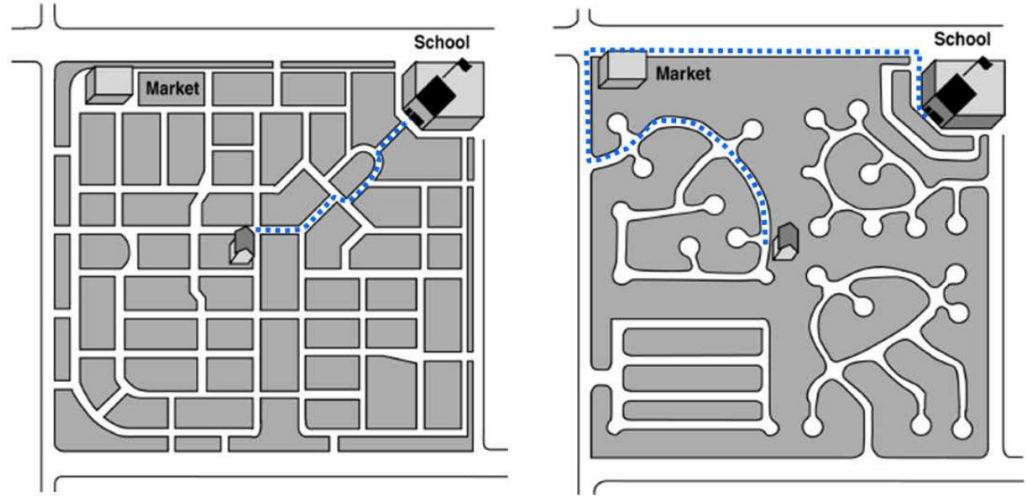
- Improved pedestrian connectivity
- More walkable city



## 2. Update zoning and subdivision ordinances to prioritize street connectivity

- Support pedestrian-friendly developments

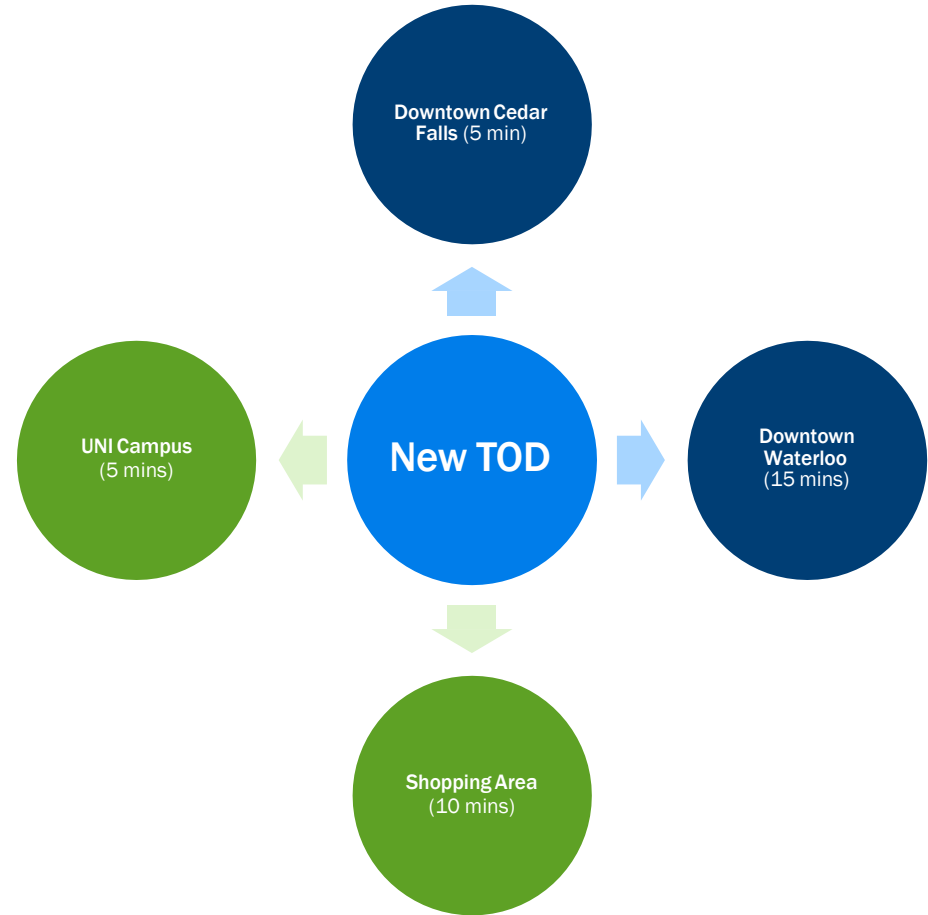
Walking distances to school in two different subdivisions



### 3. Encourage transit-oriented development (TOD)

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- Better mobility
- Build up, not out
- Higher foot-traffic for commercial
- Reduced household spending on transportation





## 4. Reduce minimum parking requirements

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- Reduced walking distance from street front
- More developable land



## 5. Adopt pedestrian “throughzones” on sidewalks in business districts

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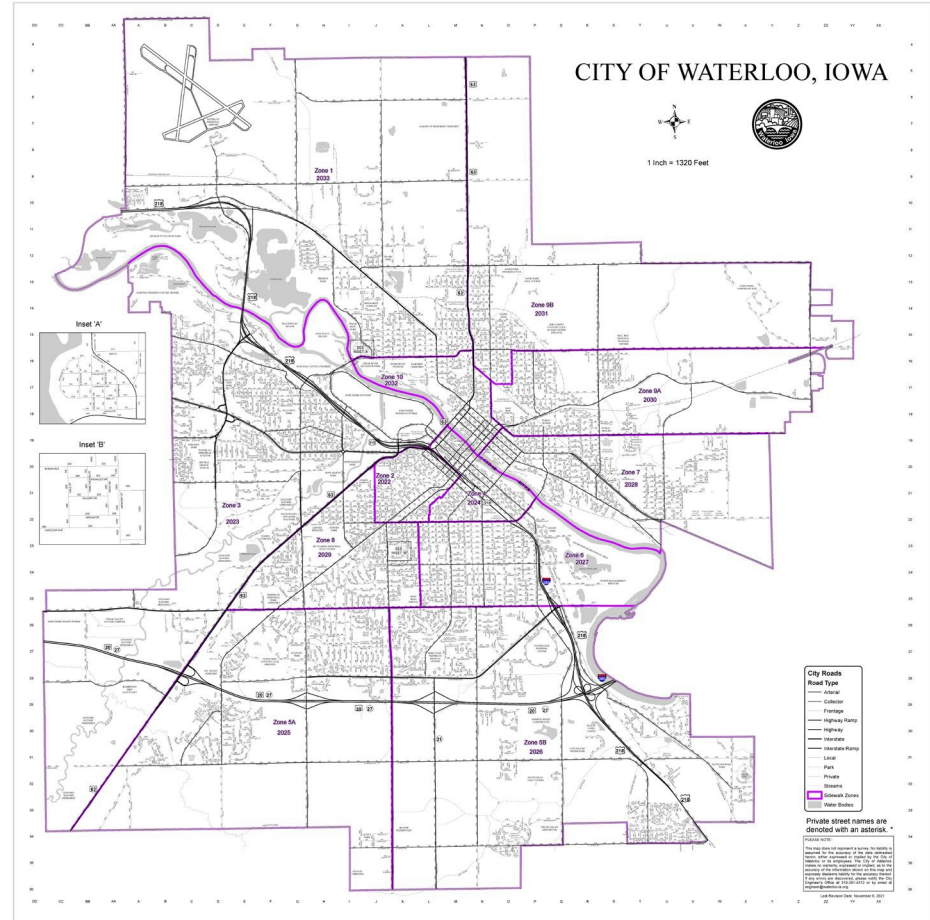
- Safe and adequate space to walk
- Parklets: prioritize pedestrians, not cars



# Engineering Recommendations



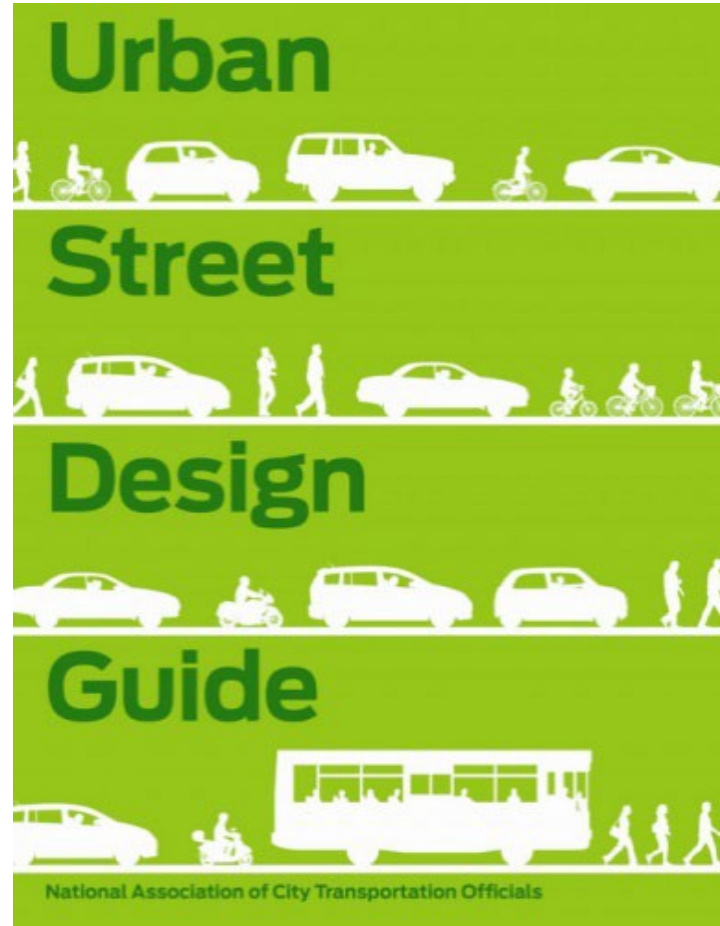
- Helps maintain sidewalk infrastructure
- Less expensive in the long-run



## 2. Adopt street design standards to improve safety for all users

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- Pedestrian-friendly standards to support walking by default



### 3. Reduce design speeds along arterial and collector roads

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- Direct correlation between higher speeds, crash risk, and injury severity
- Create safer places to walk
- Reduced crash risk

SPEED (MPH)	STOPPING DISTANCE (FT)*	CRASH RISK (%)†	FATALITY RISK (%)†
10–15	25	5	2
20–25	40	15	5
30–35	75	55	45
40+	118	90	85

\* Stopping Distance includes perception, reaction, and braking times.

† Source: Traditional Neighborhood Development: Street Design Guidelines (1999), ITE Transportation Planning Council Committee 5P-8.



## 4. Install curb extensions along arterial and collector roads

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- Reduce crossing distance
- Traffic calming
- Safer, improved pedestrian environment



## 5. Support infrastructure for buses and bicycles

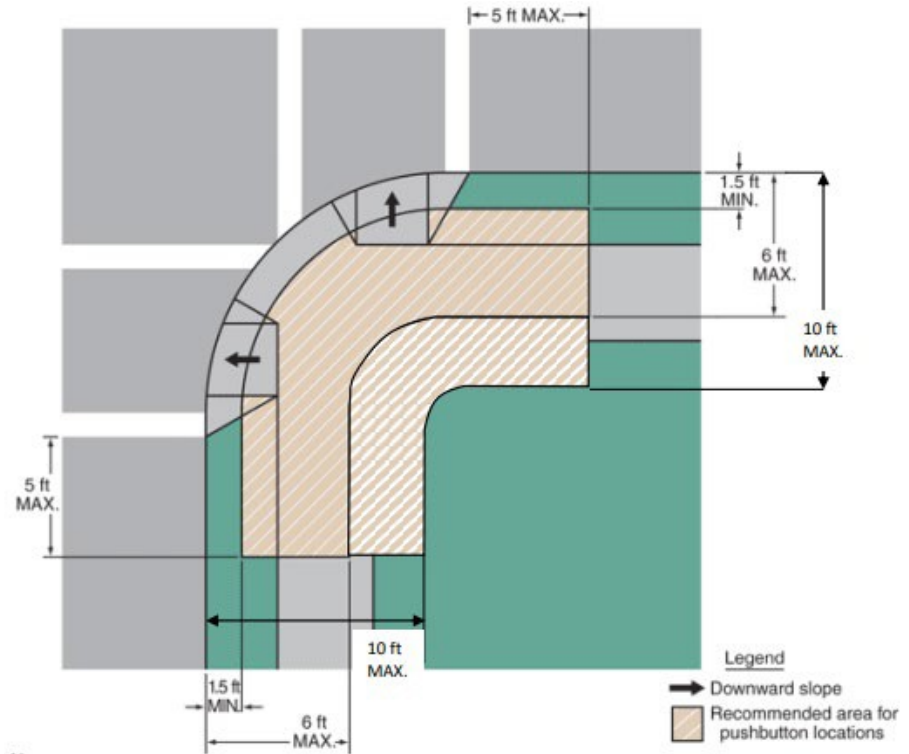
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- Traffic calming
- Reduced conflict points
- Provides overlapping benefits to pedestrians



## 6. Improve the design of Pedestrian Crossings

- Improved safety and pedestrian comfort
- Includes high visibility crosswalks, advanced Yield/Stop signs, curb extensions, and nighttime lighting

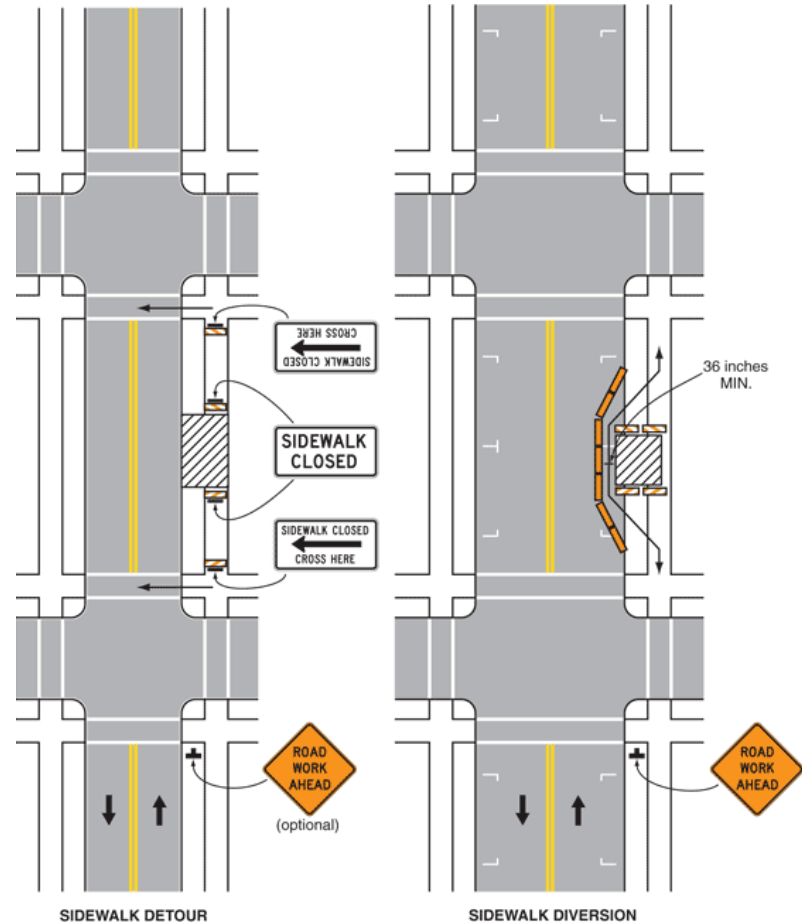


### Notes:

1. Where there are constraints that make it impractical to place the pedestrian pushbutton between 1.5 feet and 6 feet from the edge of the curb, shoulder, or pavement, it should not be further than 10 feet from the edge of curb, shoulder, or pavement.
2. Two pedestrian pushbuttons on a corner should be separated by 10 feet.
3. This figure is not drawn to scale.
4. Figure 4E-4 shows typical pushbutton locations.

## 7. Provide adequate pedestrian accommodations during construction

- Accommodate ALL road users, including pedestrians, bicyclists, and people with disabilities
- ADA law
- Pedestrian safety



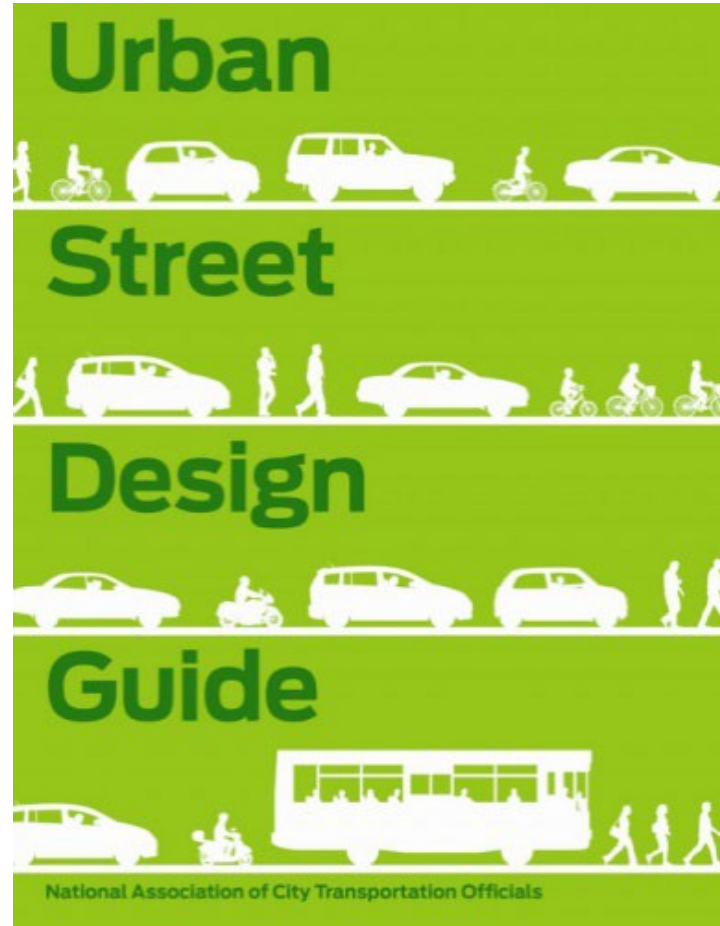
# Traffic Control Recommendations



# 1. Adopt street design standards to improve safety for all users

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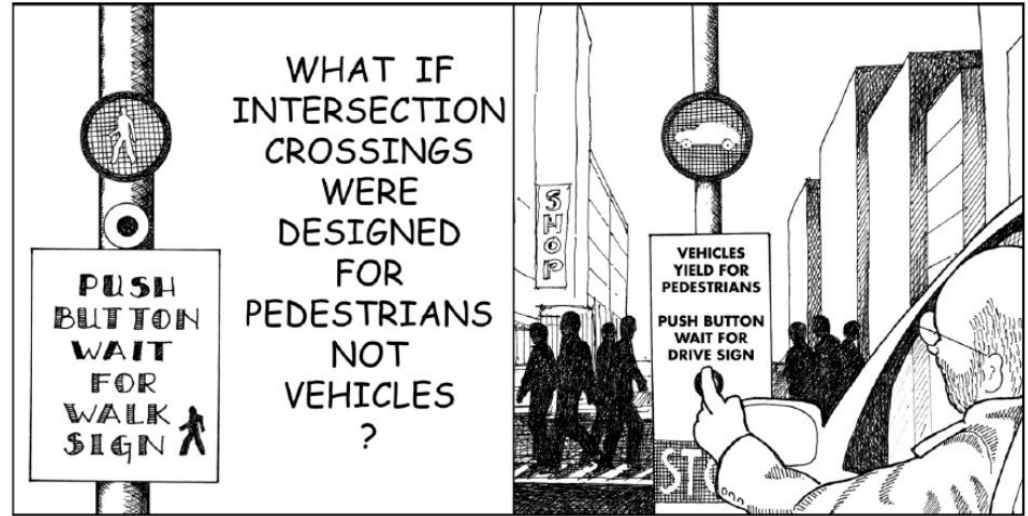
- Pedestrian-friendly standards to support walking by default





## 2. Phase out pedestrian actuated signals for fixed-time signals

- Prioritizes vehicle movement
- Access issues
- Buttons may not work



Comic by Dhiru Thadani

### 3. Support infrastructure for buses and bicycles

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- Traffic calming
- Reduced conflict points
- Provides overlapping benefits to pedestrians



## 4. Apply highly visible markings at major crosswalks

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- Improved safety
- Less maintenance over time



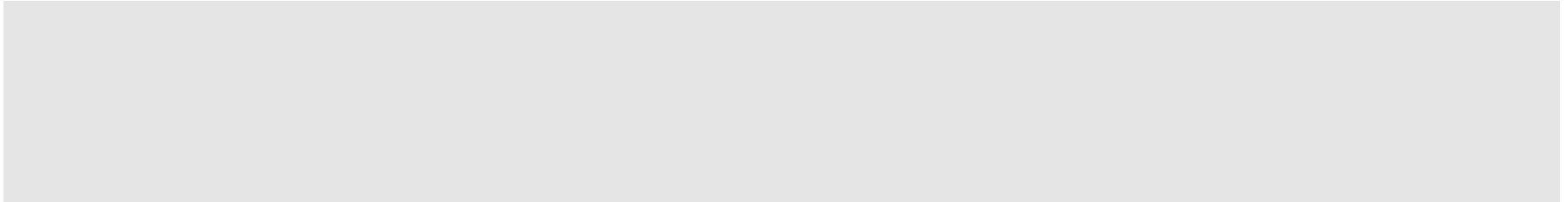
# Other Recommendations



# Other Recommendations

1. Ensure consistency of street signage in residential neighborhoods
2. Construct new or offset crosswalks and curb ramps in line with sidewalks
3. Avoid cutting down trees for new sidewalk construction
4. Emphasize pedestrian safety in public parking space layout
5. Host an open streets event

# Scoring Matrix





# Matrix Categories

Category	Max Total Points
Safety/Health	45
Equity	30
Pedestrian Attractions	25
Constructability	40
Total	140

# Scoring Matrix

Safety / Health			Data Source / Notes
Street Classification	Arterial	10	Iowa DOT current Black Hawk County Road Classification map
	Collector	7	
	Local	4	
AADT (Average Annual Daily Traffic) count	4991+	10	INRCOG MPO 2045 LRTP Chapter 3, Map 3.4
	1991 - 4990	7	
	991 - 1990	4	
	0 - 990	1	
Street Speed Limit	Greater than 35 mph	10	40, 45, 50, etc.
	26 - 35 mph	7	30, 35
	25 mph and below	4	25, 20, 15, etc.
Reported ped/vehicle or bike/vehicle injury collision (5-yr)	Yes	10	Iowa DOT crash analysis tool 10-year
	No	0	
Alternate Path of Travel	Yes	0	Can pedestrians by-pass this area via another paved pathway
	No	5	
45 max			

# Scoring Matrix

Equity - (Residents within a census tract or block served/bisected by the proposed project)			Data Source / Notes
Percent of residents in area served that are children (<18) is greater than City as a whole	Yes	5	22.9% for Waterloo - 2010 census
	No	0	
Percent of residents in area served that are seniors (65+) is greater than City as a whole	Yes	5	16.0% for Waterloo - 2010 census
	No	0	
Percent of households in area served with median incomes less than County as a whole	Yes	5	Black Hawk County average household income \$53,539
	No	0	
Percent of population in area served that has a higher population of non-white residents than the City as a whole	Yes	5	25.4% for Waterloo non-white
	No	0	
Percent of population in area served that has a higher population of disabled persons than the City as a whole	Yes	5	14.2% for Waterloo disabled (all categories)
	No	0	
Percent of population in area served that are non-English proficient persons than the County as a whole	Yes	5	Black Hawk County average is 1.6% (18 yrs+); 3.6% (5 yrs+)
	No	0	
		<b>30 max</b>	

# Scoring Matrix

Pedestrian Attractions / Proximity			Data Source / Notes
School Walkshed (<1 mile)	Yes	5	Buffer zone from school property lines
	No	0	
Park (<1/2 mile)	Yes	5	Buffer zone from park property lines
	No	0	
Voting/Polling Center (<1/2 mile)	Yes	5	Black Hawk County Auditor's office
	No	0	
Grocery (< 1/2 mile)	Yes	5	Defined by Planning
	No	0	
On Transit Fixed Route	Yes	5	Current MET routes
	No	0	
25 max			

# Scoring Matrix

Constructability (Additional costs due obstacles)			Data Source / Notes
Additional cost increase (%) from an estimated base linear foot cost to construct proposed sidewalk (i.e., \$60/LF)	0-15%	20	Flat, few vegetation or grading issues
	15% - 35%	10	
	35% - 50%	5	
	> 50%	0	Retaining walls, excessive grading, buy ROW
		<b>20 max</b>	

Construction Cost			Data Source / Notes
Construction cost	< \$100,000	20	
	\$100,000 to \$300,000	15	
	\$300,000 to \$600,000	10	
	\$600,000 to \$800,000	5	
	> \$800,000	0	
		<b>20 max</b>	

<b>Total Points (140 points max)</b>	<b>140</b>
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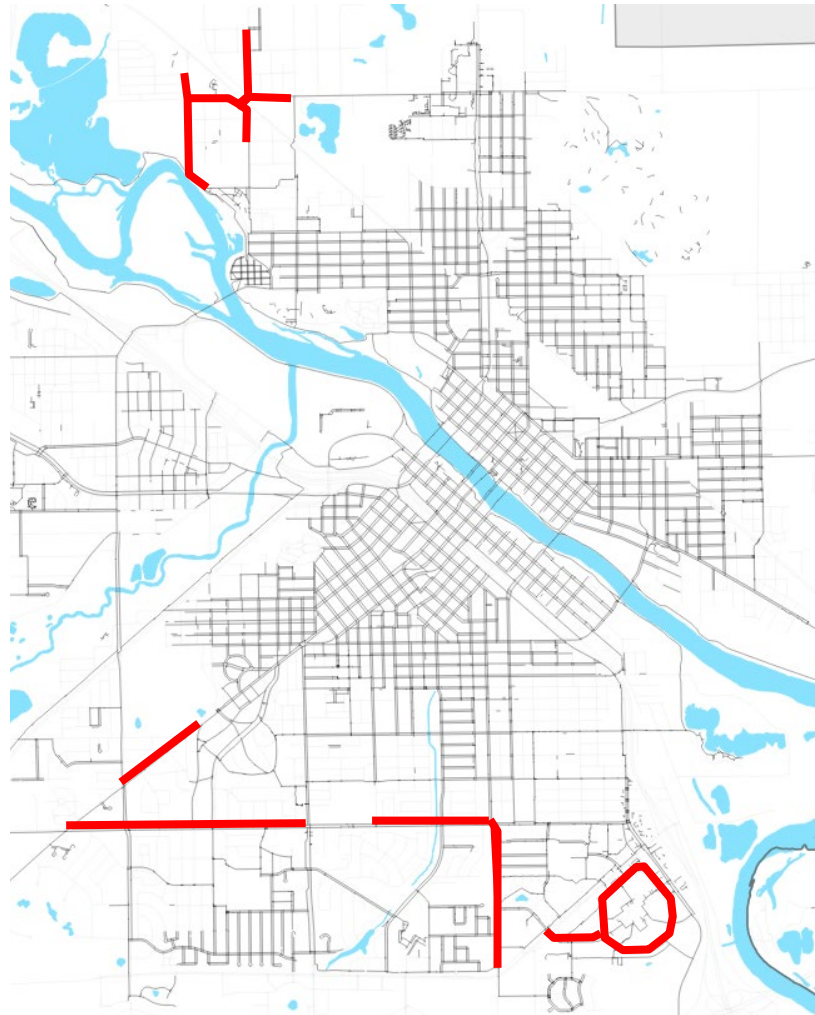
## Example Rankings

Project	Start	Stop	Estimated Cost	Points
W Donald Street	Cedar Bend St	Burton Ave	<\$300,000	107
Hammond Avenue	E Ridgeway Ave	E San Marnan Dr	<\$600,000	102
E Ridgeway Ave	Baltimore St	Hammond Ave	<\$800,000	102
West 4th Street	Ansborough Ave	Sheridan Rd	<\$300,000	99
Crossroads Boulevard	Outer ring only		<\$600,000	96
W Ridgeway Ave	W 4th St	Kimball Ave	<\$800,000	92
Cedar Bend Street	Walker St	Oakwood Dr	<\$300,000	91
Longfellow Avenue	Virginia St	Lucas St	<\$300,000	91
Flammang Dr	E San Marnan Dr	Crossroads Blvd	<\$600,000	86



# Example Rankings Locations

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# CSAC Member Recognition

- Felicia Cass
- Aric Schroeder
- Wayne Castle
- Anne Marie Kofta
- Kyle Durant
- Aldina Dautović
- Brian Schoon
- Codie Leseman



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