

MEMORANDUM

To: Lewis Kuhlman
Matt Gallagher
City of La Crosse

From: Tim Gustafson
Brad Topol
T.Y. Lin International

Date: April 7, 2016

Subject: La Crosse Neighborhood Greenway Public Involvement Assistance

Introduction

This memorandum summarizes tasks undertaken by T.Y. Lin International (TYLI) to assist the City of La Crosse (City) in the development of neighborhood greenways on two streets in La Crosse.

In 2012, the City adopted the La Crosse Bicycle and Pedestrian Master Plan, which identified two neighborhood greenways as recommendations. King Street from 7th Street to 22nd Street was identified as an immediate-term recommendation and 17th Street from Farnam Street to Main Street was identified as a near-term recommendation. Both roadways are under the jurisdiction of the City of La Crosse.

This memorandum is divided into the following sections:

- Data Review
- Public Engagement and Comments
- Recommendations
 - Conceptual Plans
 - Planning Level Cost Estimate

Data Review

While a more detailed crash review was conducted as part of the La Crosse Bicycle and Pedestrian Master Plan, TYLI reviewed crashes that occurred within the project corridor. The City of La Crosse conducted peak hour turning movement counts at the following intersections:

- King Street and West Avenue
- Jackson Street and 17th Street

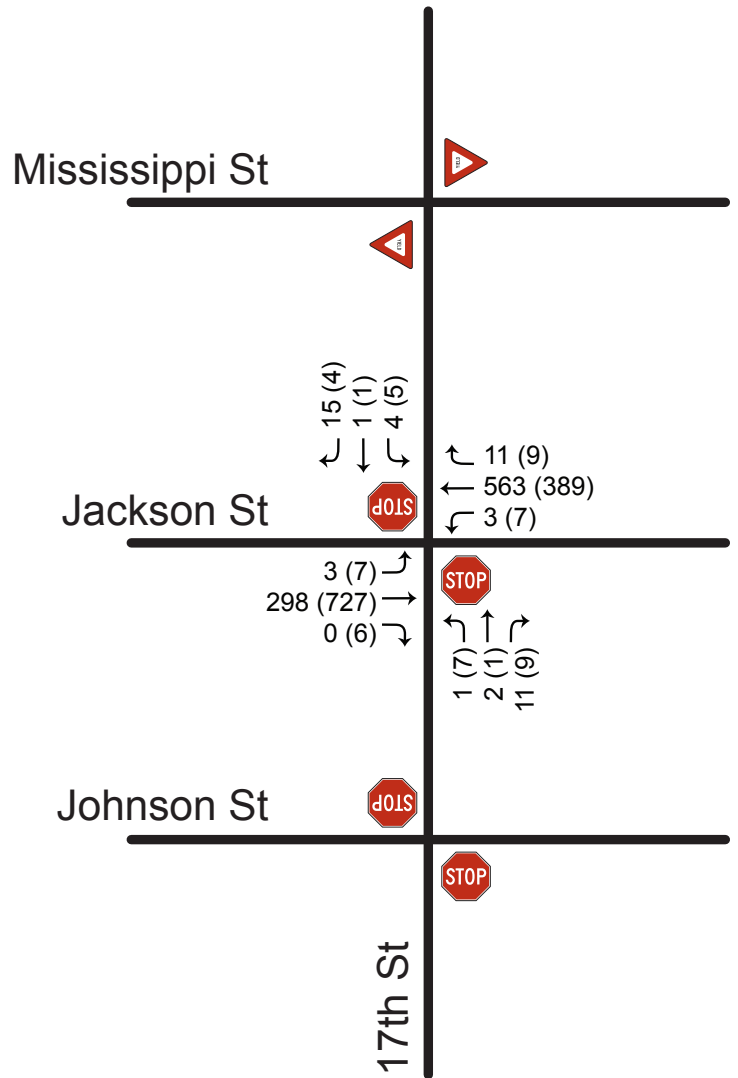
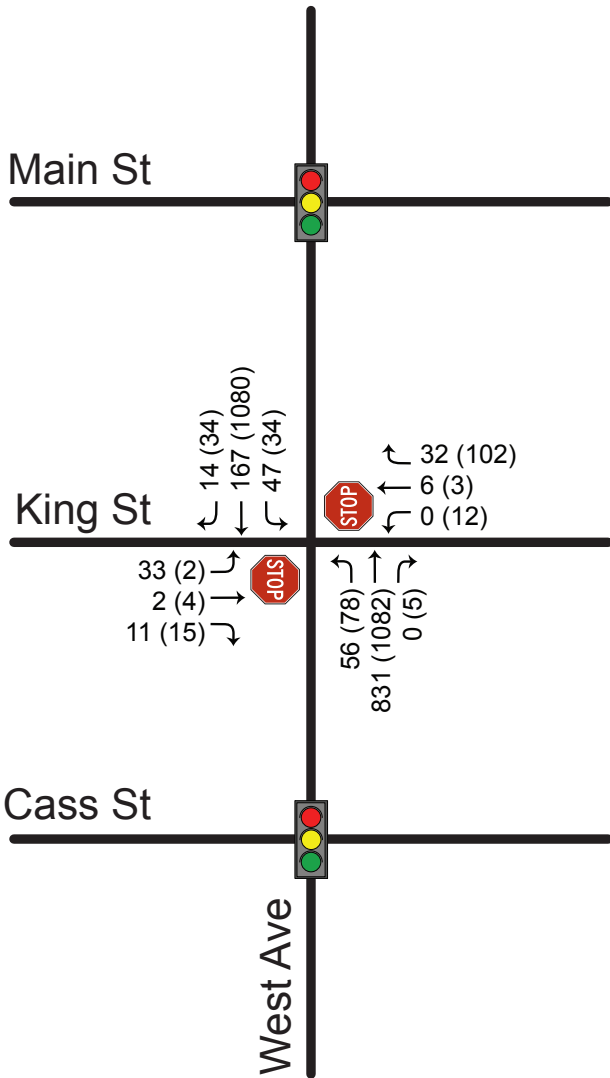
Turning movement diagrams are shown in **Figure 1: Peak-Hour Intersection Traffic Volumes**. Left turns from the minor streets onto the major streets were low, and very few motorists continued through at these locations as well, due in part to nearby signalized intersections that made these movement easier.

A map of crashes within the project area is attached to this memorandum. TYLI reviewed crash data and found that one fatal crash occurred when a pedestrian was struck while crossing West Avenue at King Street. Of the other crashes, the majority of those that were reported indicated a failure to yield, which resulted in rear end crashes, turning crashes, and angle crashes at unsignalized intersections. Injuries were reported for every pedestrian or bicyclist that was involved in an automobile crash. Where bicycle or pedestrian crashes were reported, report narratives indicated that the motorist's visibility of the bicyclist or pedestrian was a factor in the crash.

Figure 1: Peak Hour Turning Movements

West Avenue & King Street

17th Street & Jackson Street



xxx (xxx) : Traffic Volume - AM (PM)

: Stop Sign

: Traffic Signal

: Yield Sign

Intersection	Count Date	Source
17th/Jackson	January 2015	City of La Crosse
King/West	January 2015	City of La Crosse



Findings:

- The fatal crash, as well as the injuries sustained by bicyclists and pedestrians involved in crashes highlights a need to improve roadway conditions to protect these individuals, as they are the most vulnerable users of the roadway.

Public Engagement and Comments

The City of La Crosse and TYLI conducted a neighborhood public meeting and workshop on Tuesday, April 21, 2015 at the English Lutheran Church on King Street, which is located near both project corridors. Approximately 40 attendees met to learn about the proposed project, discuss concerns about existing and proposed conditions, and share their thoughts and concepts for improvement on maps of the area.

T.Y. Lin gave a presentation on existing conditions, and also shared preliminary findings about traffic volume, speed, and connectivity issues within the project area. It was emphasized during this meeting that no plans have been prepared and that the City is seeking input specifically from residents within La Crosse. Rather than proposing a specific design, T.Y. Lin presented a "menu" of potential improvements that drew upon best practices in designing neighborhood greenways. A copy of the menu is attached to this memorandum. It was emphasized that the amount of improvements could be scaled up or down based on how much traffic calming was desired. Workshop participants responded by discussing the range of potential improvements.

While those in attendance were generally supportive of the projects and the discussion, it was helpful to discuss concerns about safety, potential conflicts, and connectivity during the workshop. The majority of the discussion aligned with the issues described below:

- The recent fatal crash on West Avenue and King Street. The fatal crash caused many to support improvements to the intersection, while others were concerned that the crash should be cause for avoiding the intersection.
- Compatibility of neighborhood greenway elements with emergency response vehicles. Some had concerns that speed bumps, if not properly designed, actually deter emergency response vehicles rather than accommodate them.
- Concern over bicycles on sidewalks in a) Downtown La Crosse and b) elsewhere within the City. Some suggested that, if bicycle facilities were improved citywide, it may be desirable to ban bicycles on sidewalks to mitigate conflicts with pedestrians.
- Since major roadway crossings for each neighborhood greenway involve roads under the jurisdiction of the Wisconsin Department of Transportation (West Avenue, Jackson Street), T.Y. Lin discussed the process whereby the City would need to work with the State in order to pursue improvements.

Workshop attendees were split into groups of 6-8 participants at tables throughout the room. Large maps of each project corridor were provided to each table along with the menu of best practices for neighborhood greenways. Each table was asked to add their ideas to the map either through descriptions or sketches, and T.Y. Lin visited each table during this working session to gauge progress and answer questions.

At the end of the workshop, T.Y. Lin collected the maps and provided an overview for how the information collected would be used in the development of proposed concepts. For those who were unable to attend the workshop, the City of La Crosse collected email comments, as well. A copy of these comments is attached to this memorandum.

Findings:

- Most of the focus during the workshop was on two of the main intersections of King Street at West Avenue, and Jackson Street at 17th Street. Some participants supported the removal of one or both turn lanes on West Avenue in order to make space for a pedestrian/bicyclist refuge island. Others suggested installation of a barrier median, thereby restricting all left turns as well as cross traffic on King Street in order to accommodate a pedestrian/bicyclist refuge island across the intersection. For the intersection of Jackson Street and 17th Street, some participants supported a barrier median restricting all left turns onto 17th from Jackson, claiming that alternative routes are available to motorists. Others supported limiting only one of the two left turns in order to make space for a pedestrian/bicyclist refuge island.

- Biocells and pedestrian/bicyclist refuge islands were among the more popular greenway treatments.
- Speed tables were suggested by some participants as a solution to calm traffic along King Street, while other participants indicated that speeding wasn't really an issue.
- Corner bump-outs were suggested by some participants as a solution for King Street and 17th Street as well as on the cross streets along the neighborhood greenway.
- Some participants suggested that bike lanes could be installed if parking were removed from one or both sides of the road. However, on-street parking utilization was observed to be low, and many felt that a neighborhood greenway could have a more calming effect than bike lanes.

Recommendations

King Street Recommendations:

- Bike Route Signs:
 - Bike route signs are recommended along King Street to guide bicyclists to the following key destinations: Downtown La Crosse, University of Wisconsin-La Crosse, Grandad Bluff Park, and Tower Park/Mt. Calvary-Grace Lutheran School.
- Biocells:
 - Biocells as bump-outs are recommended at several locations to shorten the length of crossings on King Street. To achieve this, the biocells should be placed on the cross streets that intersect with King.
- Miniature Traffic Circles:
 - Miniature traffic circles are recommended to slow vehicles traveling along King Street, as well as to provide traffic calming at several cross streets as a complement to the biocells.
- King Street & West Avenue
 - In order to improve crossings of King Street as West Avenue, TYLI prepared several intersection alternatives and included them with the concept sketches in Attachment A. Guidance for the development of these alternatives comes from the NACTO Urban Bikeway Design Guide with design guidance specifically for neighborhood greenway crossings as major roadway in unsignalized intersection conditions.
 - A do-nothing alternative is shown that replicates existing conditions
 - Alternative A involves restricting southbound left turns in order to provide a median and bicycle crossing in the north leg of the intersection.
 - Alternative B involves restricting northbound left turns in order to provide a median and bicycle crossing in the south leg of the intersection.
 - Alternative C involves restricting all left turns on West Avenue at King Street, and restricts all automobile movements to and from King Street as right in/right out. Two separate crossings for bicycles are located in cutouts in the median.
 - Alternative D involves restricting all left turns on West Avenue at King Street, and restricts all automobile movements to and from King Street as right in/right out. A single, central crossing for bicycles is located in a cutout in the median.
 - Alternative E involves permitting left turns from West Avenue onto King Street and restricted all turns to and from King Street as right in/right out. A modified median with cutouts permits left turns by automobiles from West Avenue to King Street, and a central bicycle crossing is located in the center of the median.
 - For guidance on the design of alternatives that involve medians with cutouts for bicycle crossings, refer to the City of Bloomington, Indiana and its neighborhood greenway crossing of Walnut Street at Allen Street (Google Maps Link: <https://www.google.com/maps/place/Bloomington,+IN/@39.1555288,-86.5336841,3a,60y,335.81h,74t/data=!3m6!1e1!3m4!1sZXgcK12G2pOz0e71GMMjmg!2e0!7i13312!8i6656!4m2!3m1!1s0x886c5df6b483d8e7:0xe91a912d8bad33d9!5m1!1e3!6m1!1e1>)

17th Street Recommendations:

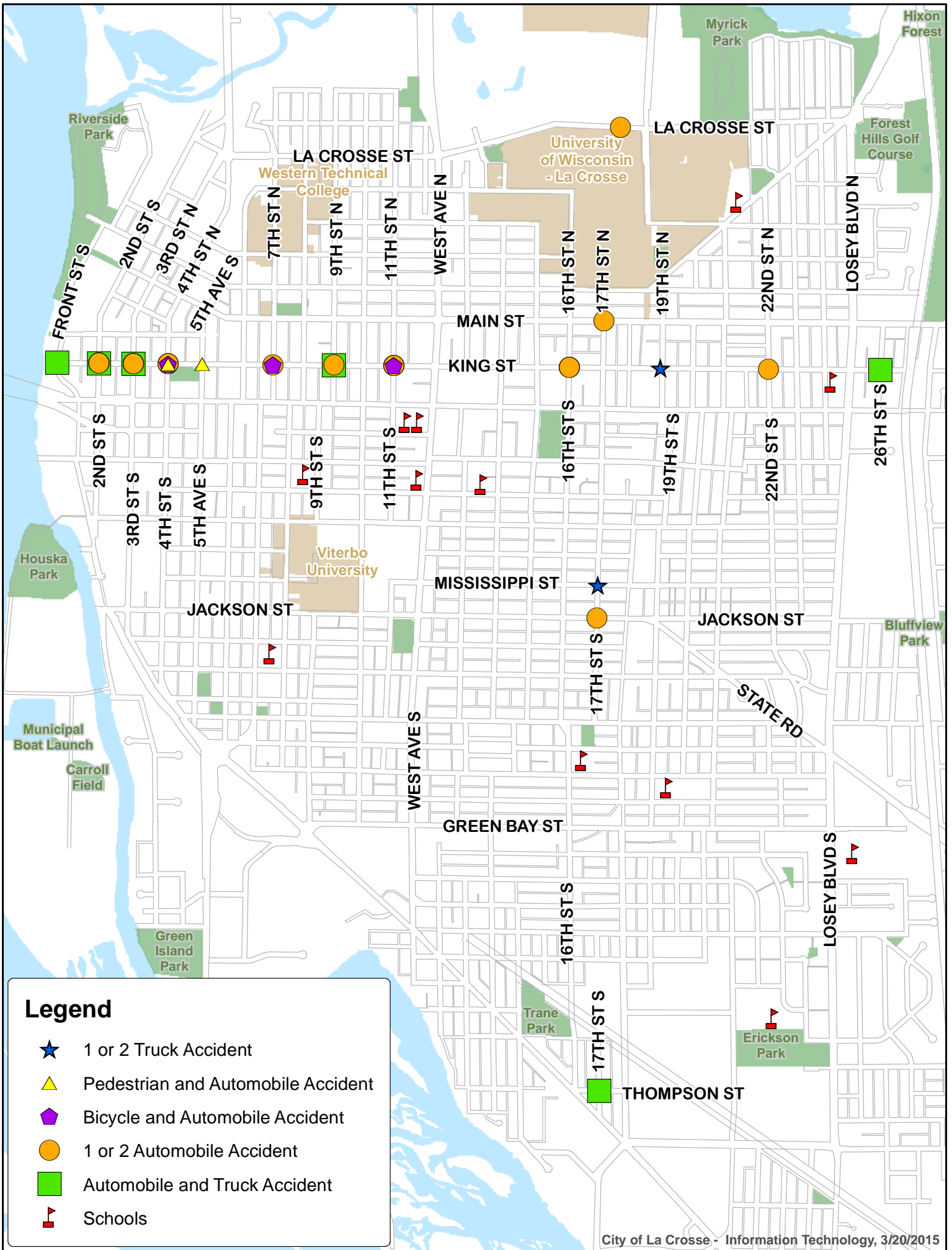
- Bike Route Signs:
 - Bike route signs are recommended along 17th Street to guide bicyclists to the following key destinations: Downtown La Crosse, University of Wisconsin-La Crosse, Grandad Bluff Park, Tower Park/Mt. Calvary-Grace Lutheran School
- Biocells:
 - Biocells as bump-outs are recommended at several locations to shorten the length of crossings on King Street. To achieve this, the biocells should be placed on the cross streets that intersect with King.
- Miniature Traffic Circles:
 - Miniature traffic circles are recommended to slow vehicles traveling along King Street, as well as to provide traffic calming at several cross streets as a complement to the biocells.
- 17th Street & Jackson Street:
 - A pedestrian refuge island is recommended on Jackson Street that would facilitate bicycle and pedestrian crossings at the east crosswalk. (Refer to an example photograph at the end of this memo.)
 - “Keep Right” regulatory signs should be installed on Jackson Street in both directions in advance of 17th Street.
 - The median should include a pedestrian/bicyclist cut-through and high-visibility crosswalk on the east leg of the intersection.
 - “State Law Yield to Pedestrians in Crosswalk” signs should be installed on the proposed medians in advance of 17th Street.
 - Traffic counts conducted at this location indicate very low volumes of left-turning traffic that do not warrant a need for exclusive left-turn lanes at this location.



Example of pedestrian refuge islands installed on a four-lane roadway while still permitting left turns.
Source: Google.

List of Attachments

- Crash Map
- Copy of Neighborhood Greenway Treatment Options Menu
- Proposed Concept Plans
- Record of Written Comments Received
- Attachment A - King / West Intersection Alternatives



Legend

- ★ 1 or 2 Truck Accident
- ▲ Pedestrian and Automobile Accident
- ◆ Bicycle and Automobile Accident
- 1 or 2 Automobile Accident
- Automobile and Truck Accident
- 🚩 Schools

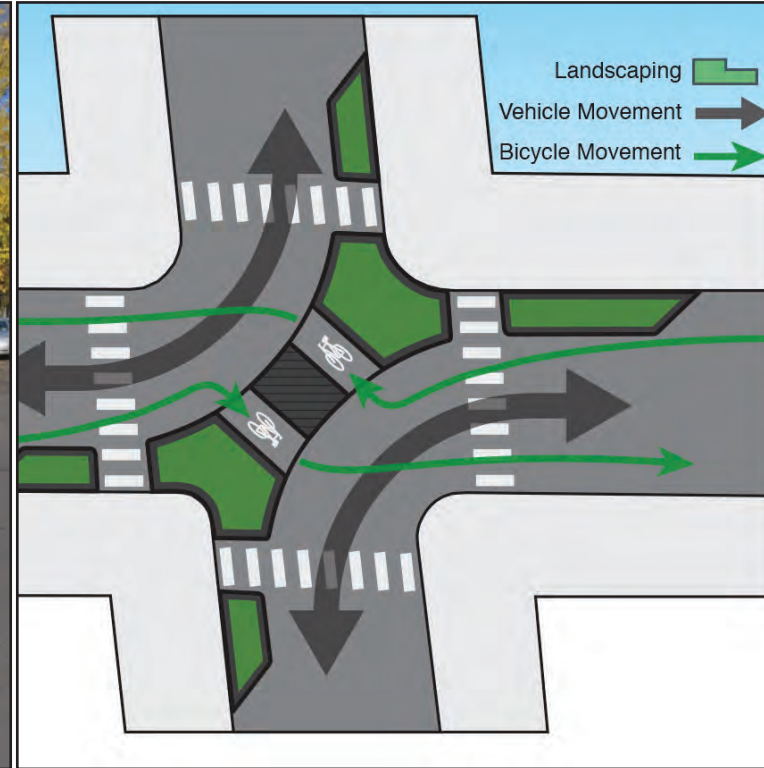
Neighborhood Greenway "Menu"



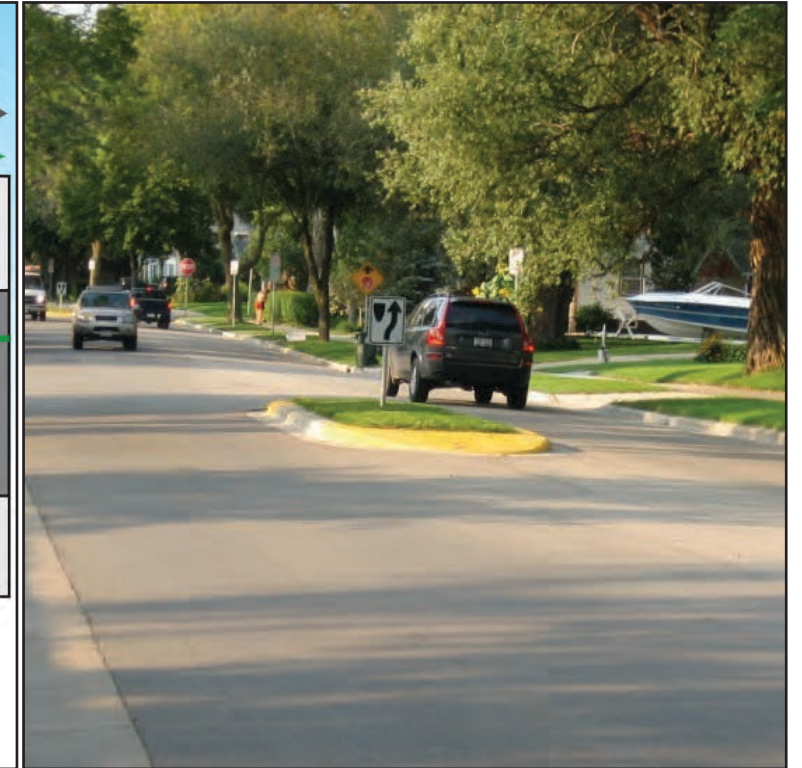
Mini Traffic Circle



Biocell



Diagonal Diverter



Median Refuge Island



Median Refuge with Cut-Through



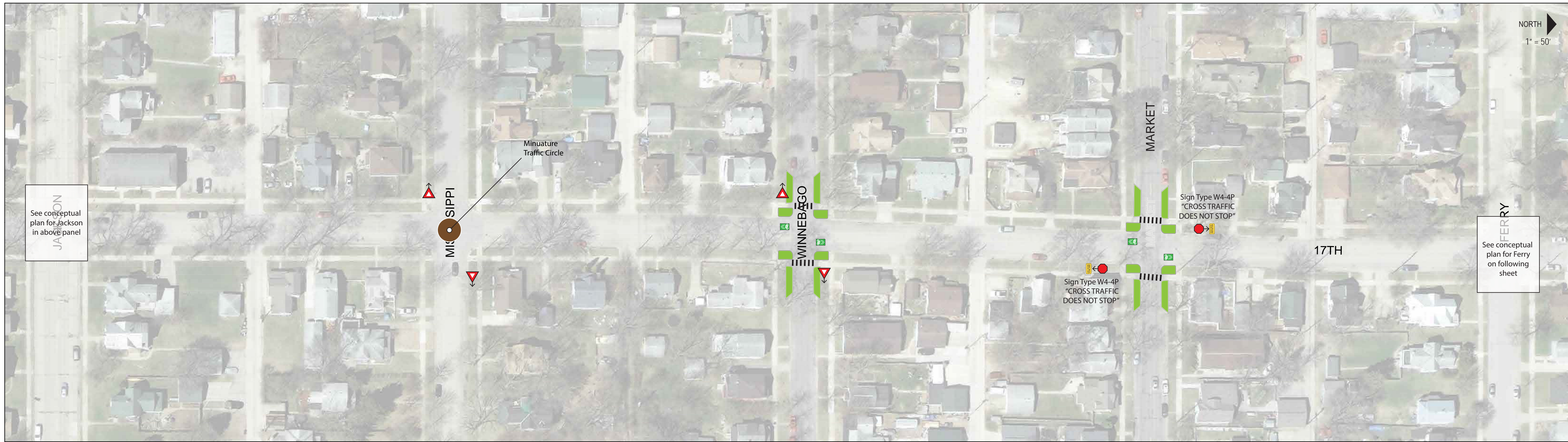
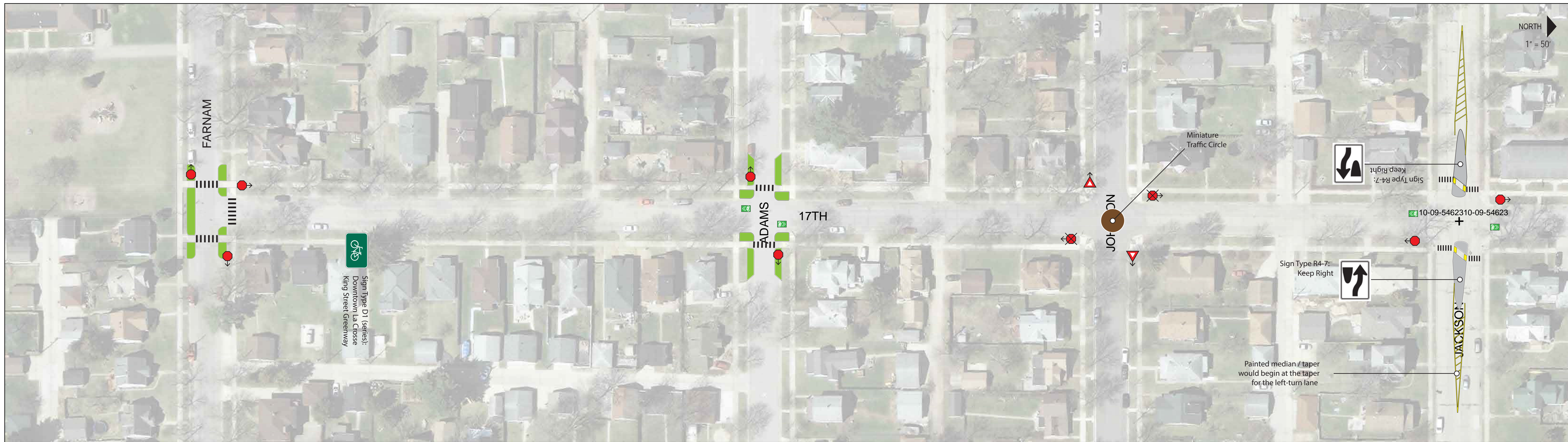
Raised Crosswalk or Intersection



Speed Table



Chicane



CITY OF LA CROSSE
 PROPOSED NEIGHBORHOOD GREENWAY
 DRAFT CONCEPT PLAN FOR DISCUSSION PURPOSES ONLY

**17TH STREET FROM
 FARNAM STREET TO
 STATE STREET**

LEGEND:

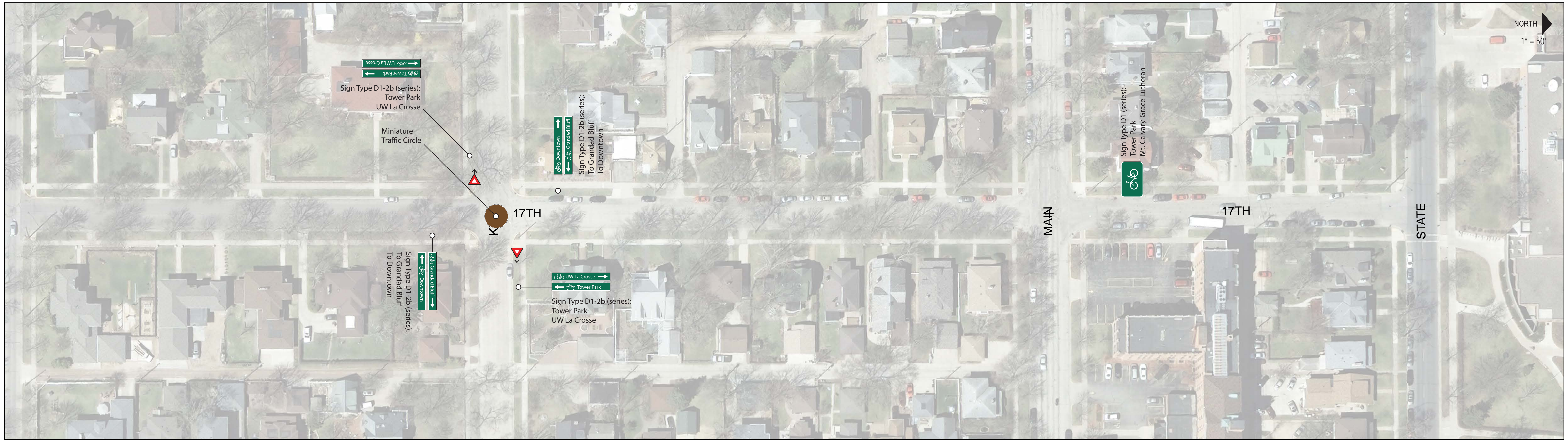
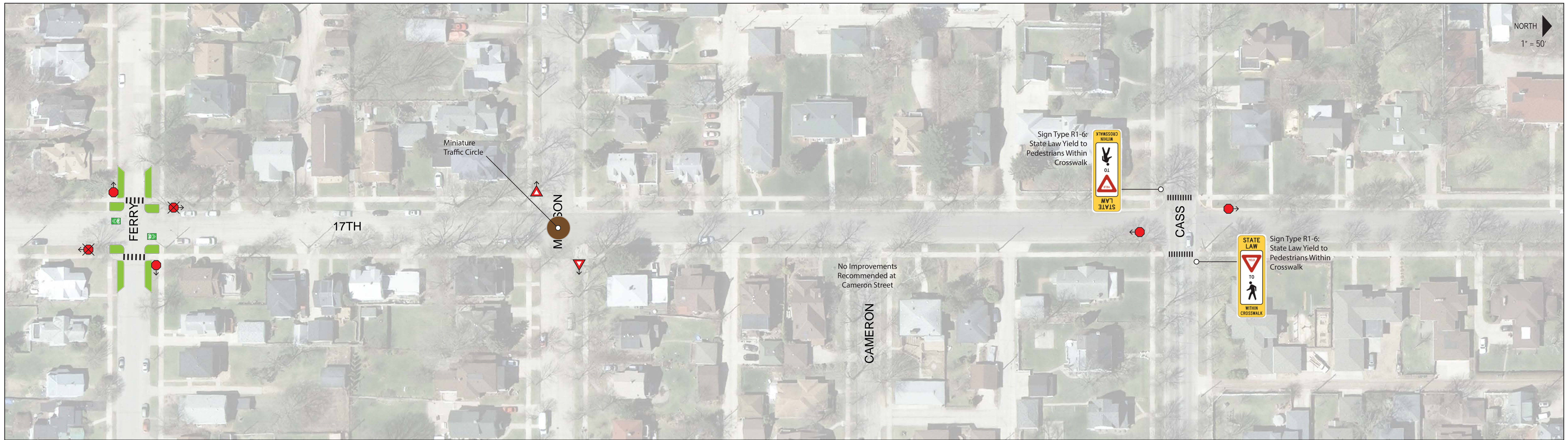
	CRASH (00-00-00000 = CRASH REPORT NO.)		CURB EXTENSION W/BIOCELL		STOP SIGN
	BIKE ROUTE / DIRECTIONAL SIGN		PEDESTRIAN REFUGE ISLAND		YIELD SIGN
	MINI TRAFFIC CIRCLE		BARRIER MEDIAN	ALL OTHER SIGNS PROPOSED AS SHOWN ON THE PLANS	

NORTH
 1" = 50'

TYLIN INTERNATIONAL
 engineers | planners | scientists
 200 S. WACKER DRIVE, SUITE 1400 CHICAGO, IL 60606
 TEL: 312-777-2900

DWG:

SHEET: 1 of 2
DATE: 04 / 07 / 2016
PROJ: LA CROSSE GREENWAY



CITY OF LA CROSSE
 PROPOSED NEIGHBORHOOD GREENWAY
 DRAFT CONCEPT PLAN FOR DISCUSSION PURPOSES ONLY

**17TH STREET FROM
 FARNAM STREET TO
 STATE STREET**

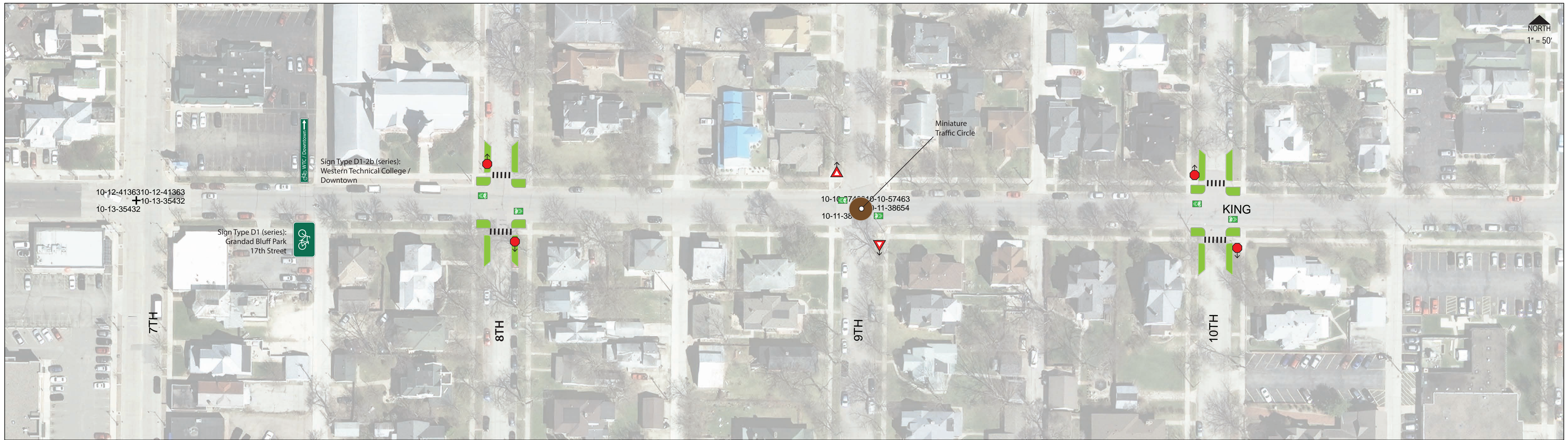
LEGEND:

- CRASH (00-00-00000 = CRASH REPORT NO.)
 - BIKE ROUTE / DIRECTIONAL SIGN
 - MINI TRAFFIC CIRCLE
 - CURB EXTENSION W/BIOCELL
 - PEDESTRIAN REFUGE ISLAND
 - BARRIER MEDIAN
 - STOP SIGN
 - YIELD SIGN
- ALL OTHER SIGNS PROPOSED AS SHOWN ON THE PLANS

NORTH
 1" = 50'

TYLINTN INTERNATIONAL
 engineers | planners | scientists
 200 S. WACKER DRIVE, SUITE 1400 CHICAGO, IL 60606
 TEL: 312-777-2900

DWG:
 SHEET: 2 of 2
 DATE: 04 / 07 / 2016
 PROJ: LA CROSSE GREENWAY



CITY OF LA CROSSE
 PROPOSED NEIGHBORHOOD GREENWAY CONCEPT
 DRAFT FOR DISCUSSION PURPOSES ONLY

**KING STREET FROM
 7TH STREET TO 22ND STREET**

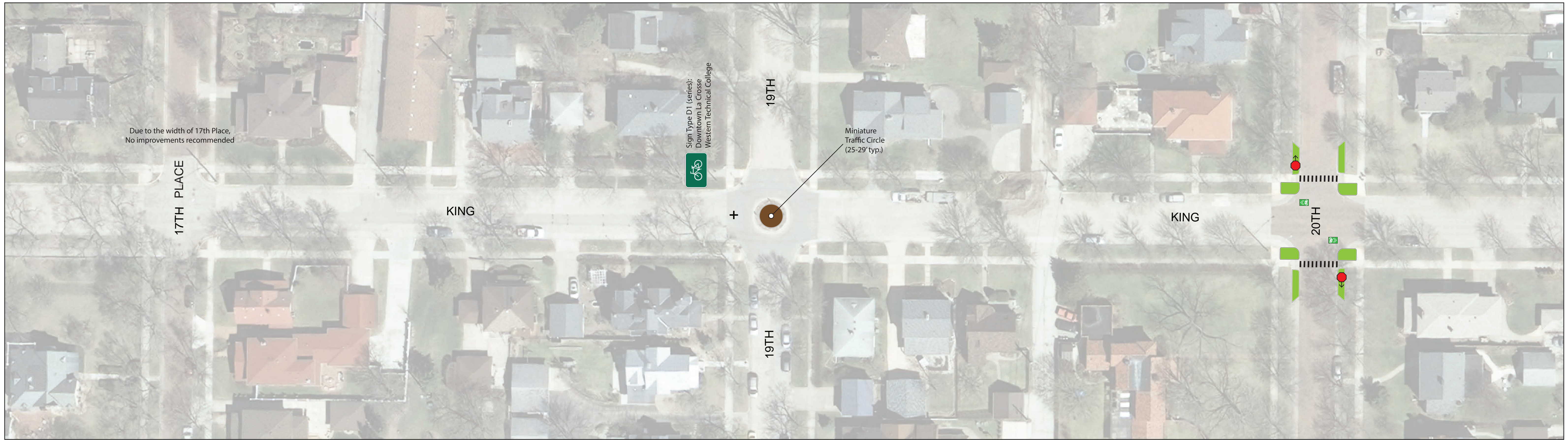
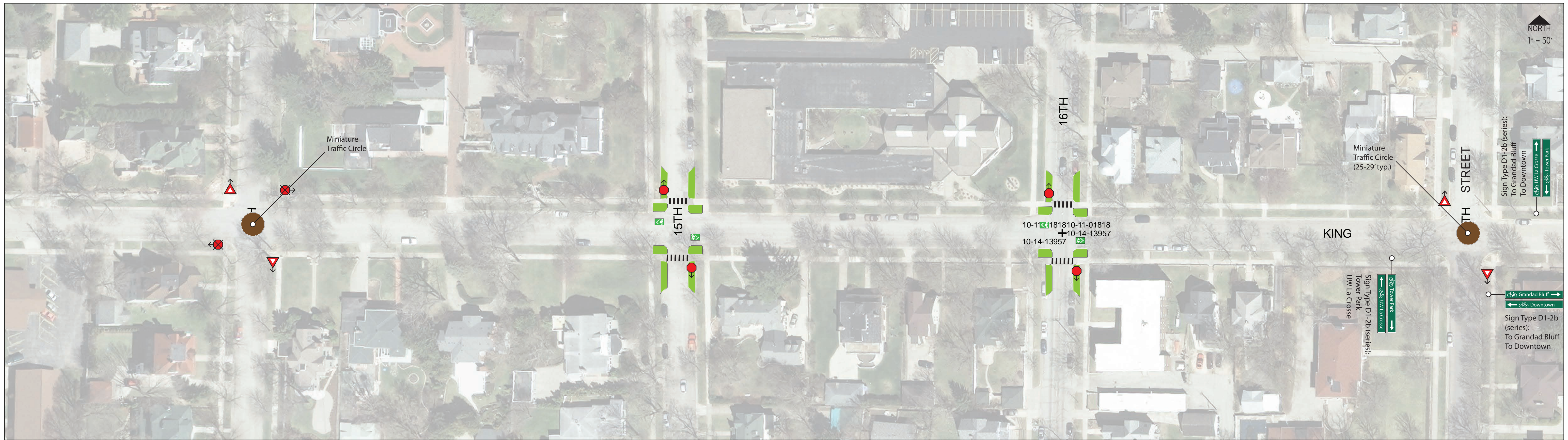
LEGEND:

CRASH (00-00-00000 = CRASH REPORT NO.)	CURB EXTENSION W/BIOCELL	STOP SIGN
BIKE ROUTE / DIRECTIONAL SIGN	PEDESTRIAN REFUGE ISLAND	YIELD SIGN
MINI TRAFFIC CIRCLE	BARRIER MEDIAN	ALL OTHER SIGNS PROPOSED AS SHOWN ON THE PLANS

NORTH
 1" = 50'

TYLIN INTERNATIONAL
 engineers | planners | scientists
 200 S. WACKER DRIVE, SUITE 1400 CHICAGO, IL 60606
 TEL: 312-777-2900

DWG:
 SHEET: 1 of 3
 DATE: 04 / 07 / 2016
 PROJ: LA CROSSE GREENWAY



CITY OF LA CROSSE
 PROPOSED NEIGHBORHOOD GREENWAY CONCEPT
 DRAFT FOR DISCUSSION PURPOSES ONLY

**KING STREET FROM
 7TH STREET TO 22ND STREET**

LEGEND:

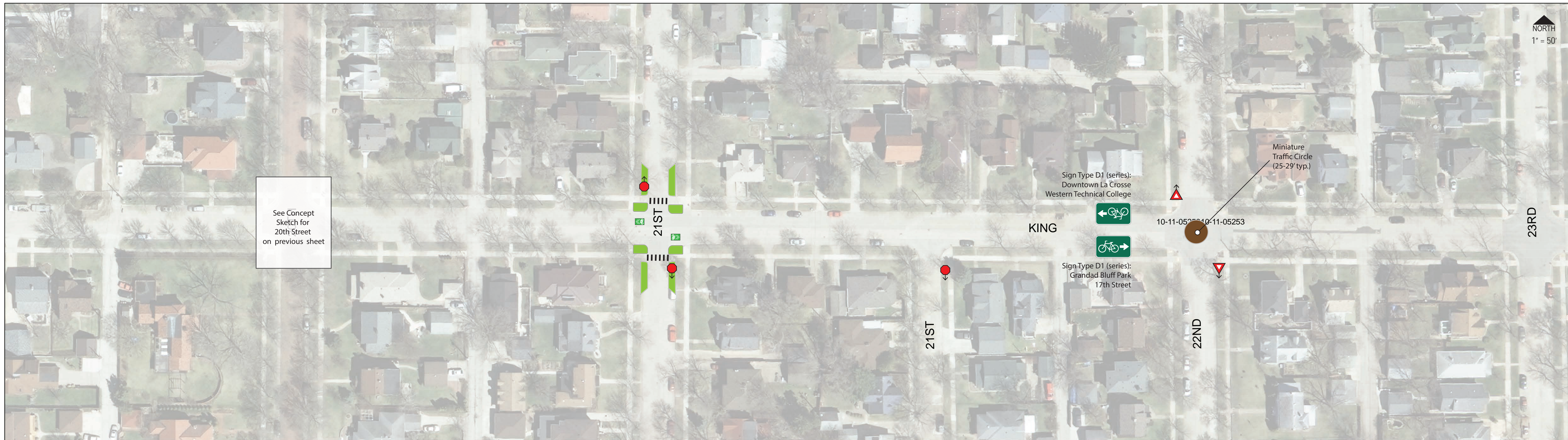
- CRASH (00-00-00000 = CRASH REPORT NO.)
- BIKE ROUTE / DIRECTIONAL SIGN
- MINI TRAFFIC CIRCLE
- CURB EXTENSION W/BIOCELL
- PEDESTRIAN REFUGE ISLAND
- BARRIER MEDIAN
- STOP SIGN
- YIELD SIGN

ALL OTHER SIGNS PROPOSED AS SHOWN ON THE PLANS

NORTH
 1" = 50'

TYLIN INTERNATIONAL
 engineers | planners | scientists
 200 S. WACKER DRIVE, SUITE 1400 CHICAGO, IL 60606
 TEL: 312-777-2900









DWG:
 SHEET: 2 of 3
 DATE: 04 / 07 / 2016
 PROJ: LA CROSSE GREENWAY




**CITY OF LA CROSSE
PROPOSED NEIGHBORHOOD GREENWAY CONCEPT
DRAFT FOR DISCUSSION PURPOSES ONLY**

**KING STREET FROM
7TH STREET TO 22ND STREET**

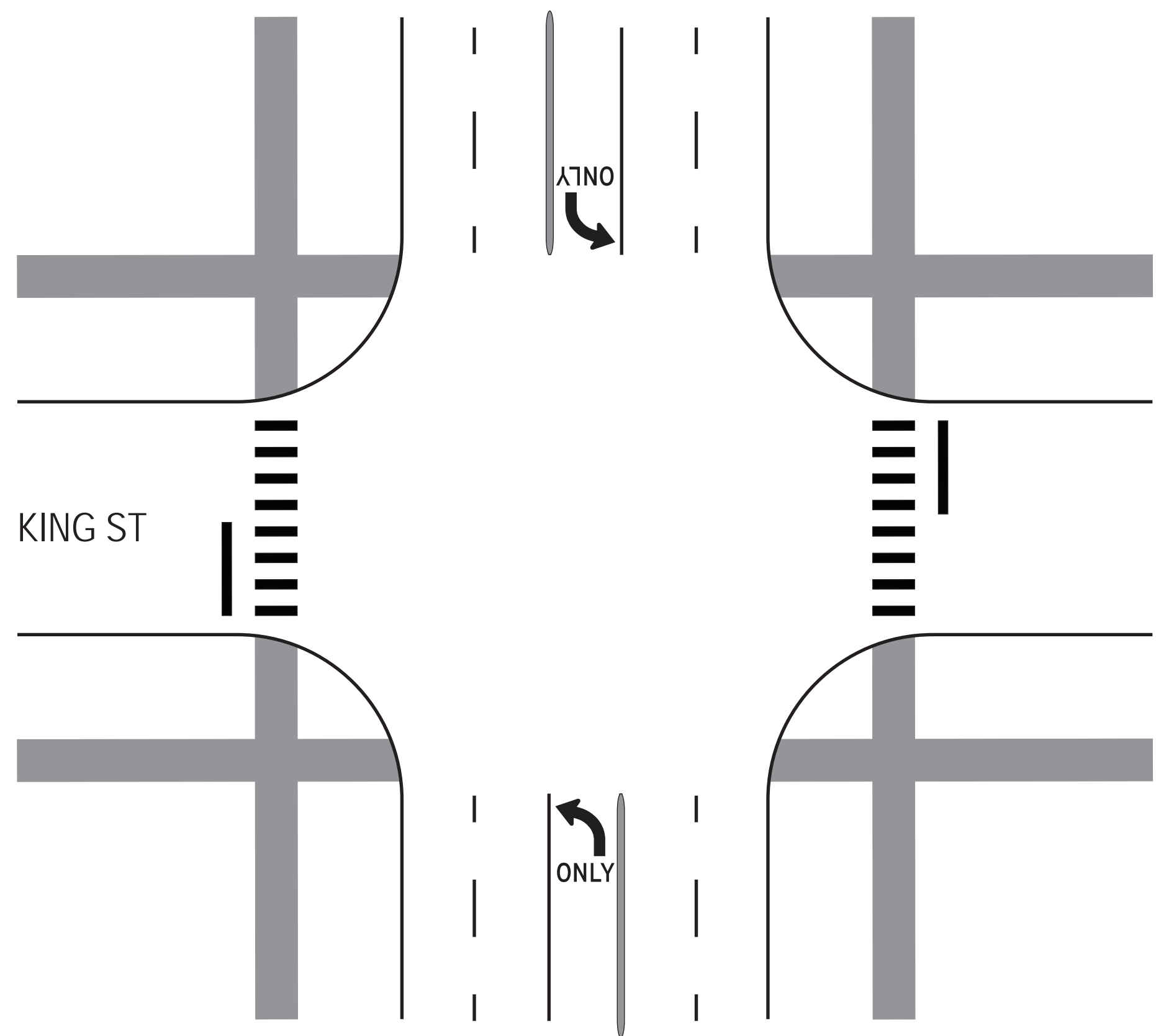
LEGEND:

-  CRASH (00-00-00000 = CRASH REPORT NO.)
-  BIKE ROUTE / DIRECTIONAL SIGN
-  MINI TRAFFIC CIRCLE
-  CURB EXTENSION W/BIOCELL
-  PEDESTRIAN REFUGE ISLAND
-  BARRIER MEDIAN
-  STOP SIGN
-  YIELD SIGN
- ALL OTHER SIGNS PROPOSED AS SHOWN ON THE PLANS

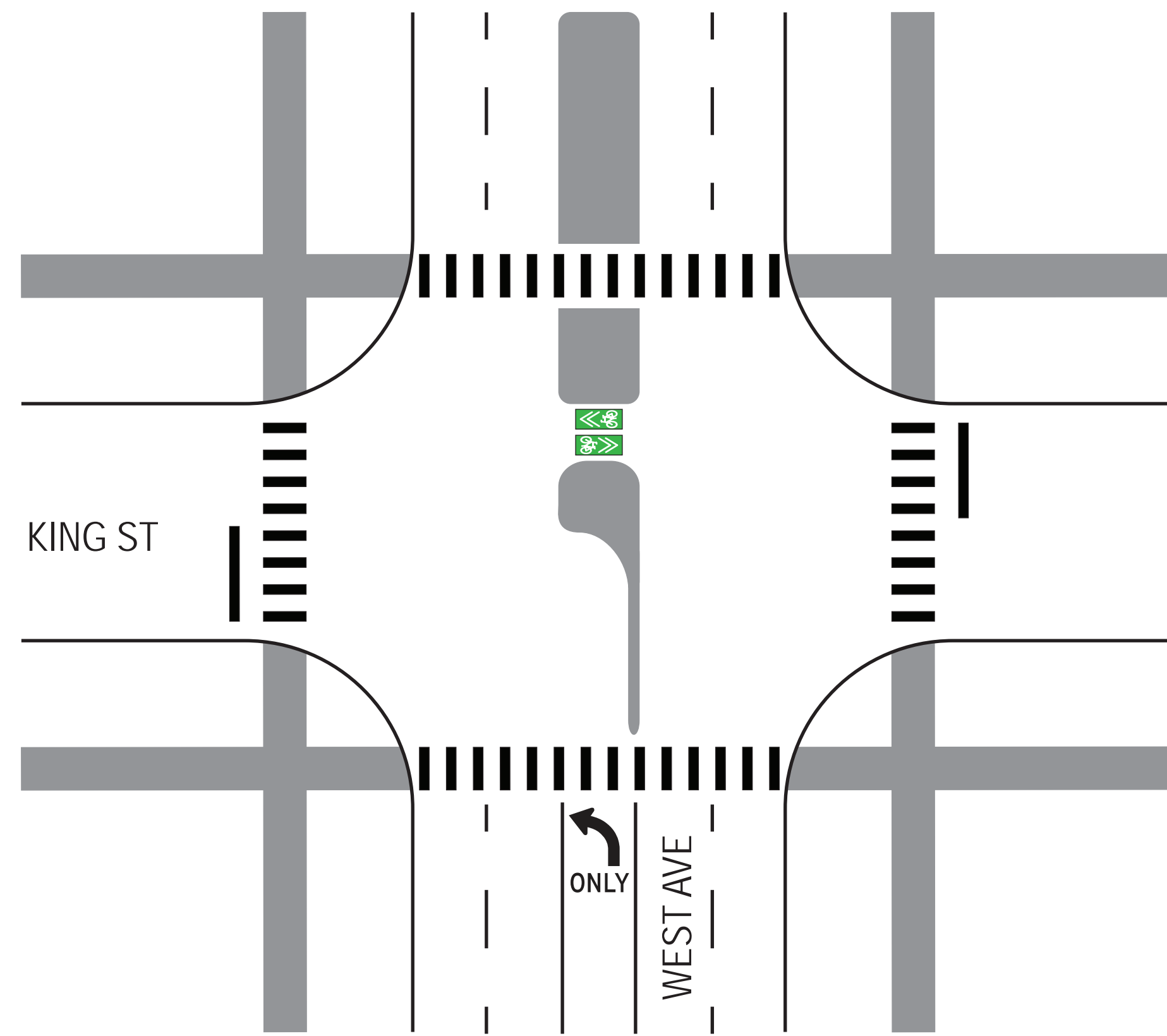
NORTH 
1" = 50'

TYLIN INTERNATIONAL
engineers | planners | scientists
200 S. WACKER DRIVE, SUITE 1400 CHICAGO, IL 60606
TEL: 312-777-2900

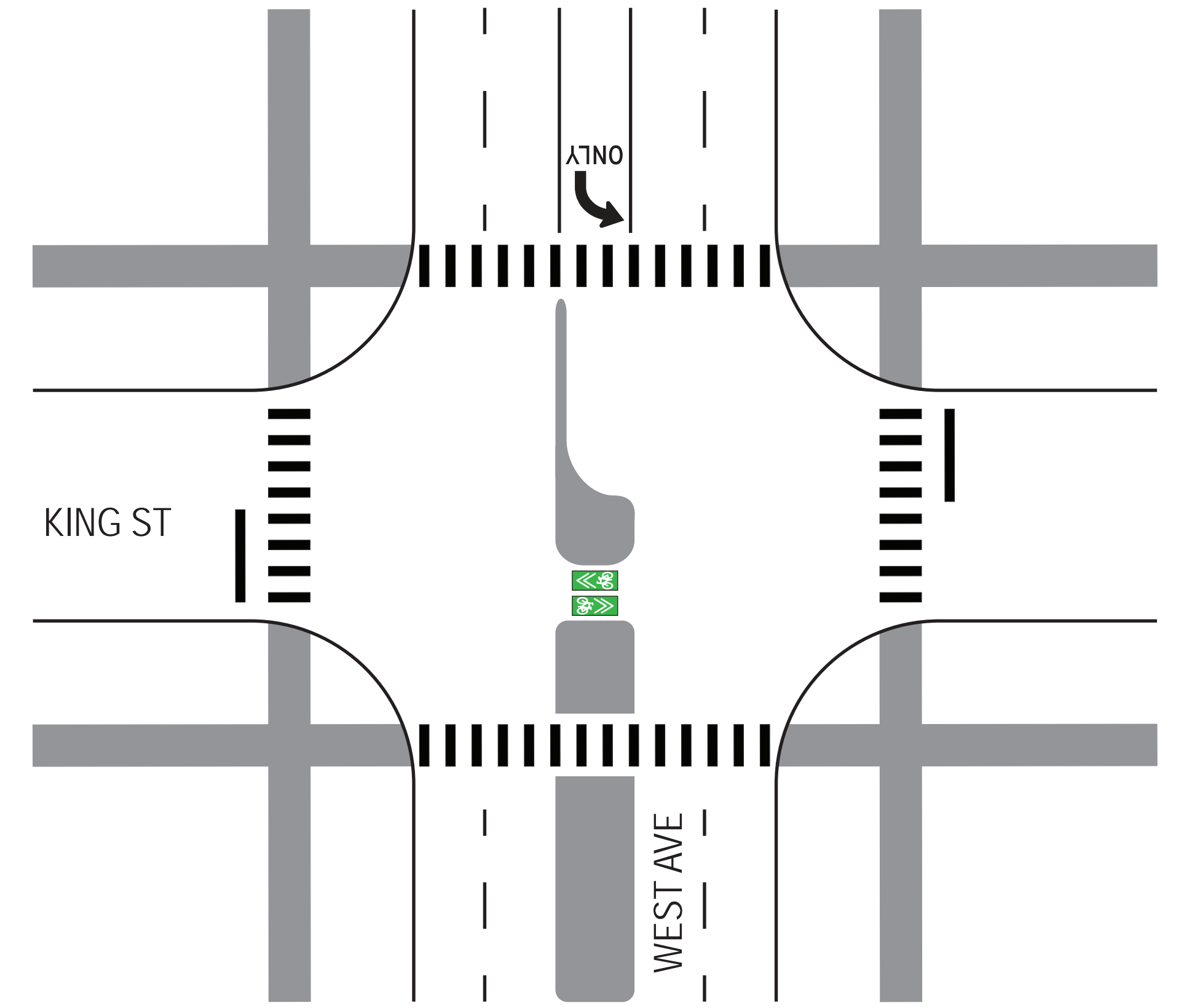
DWG:
SHEET: 3 of 3
DATE: 04 / 07 / 2016
PROJ: LA CROSSE GREENWAY



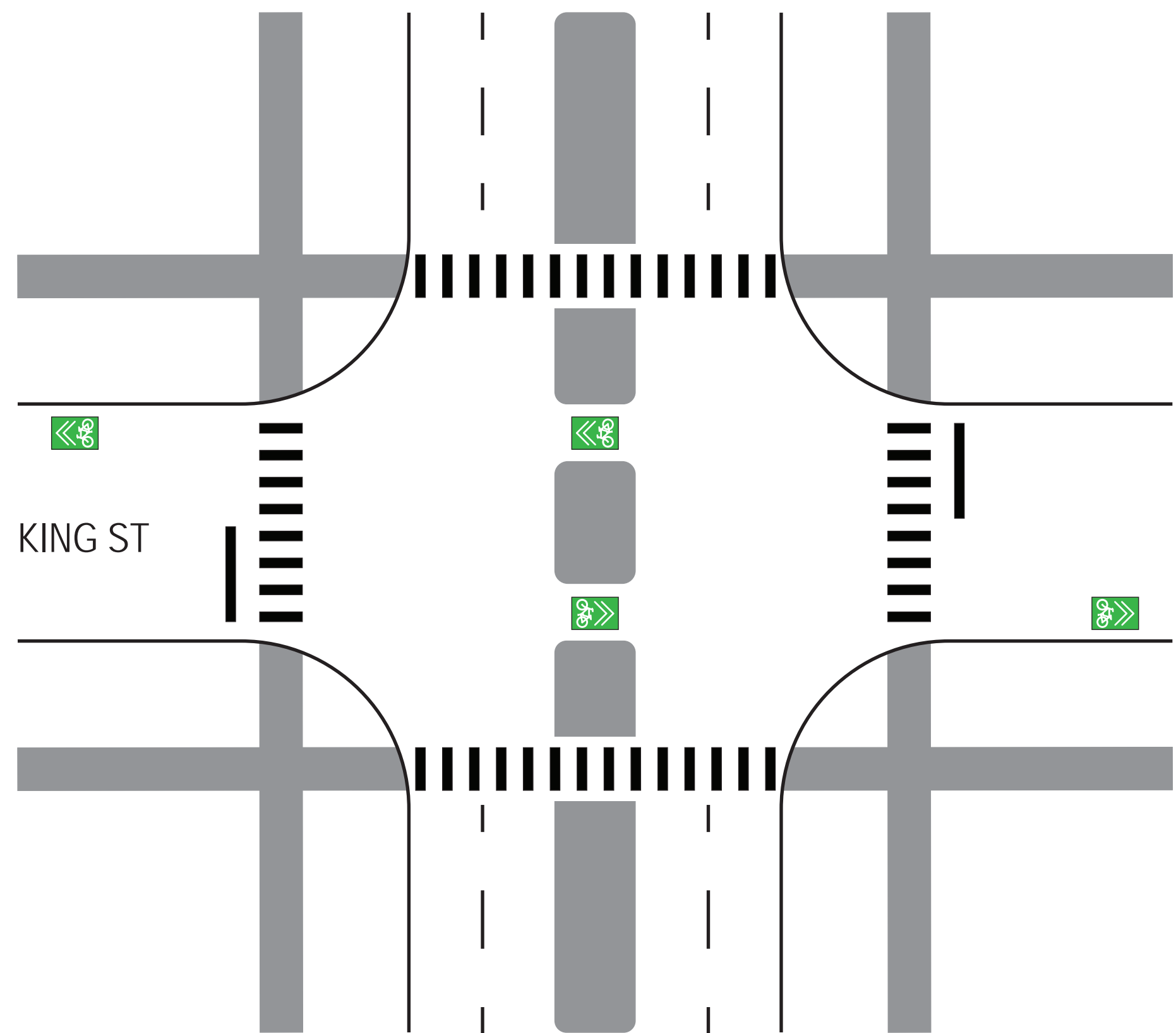
No Improvement



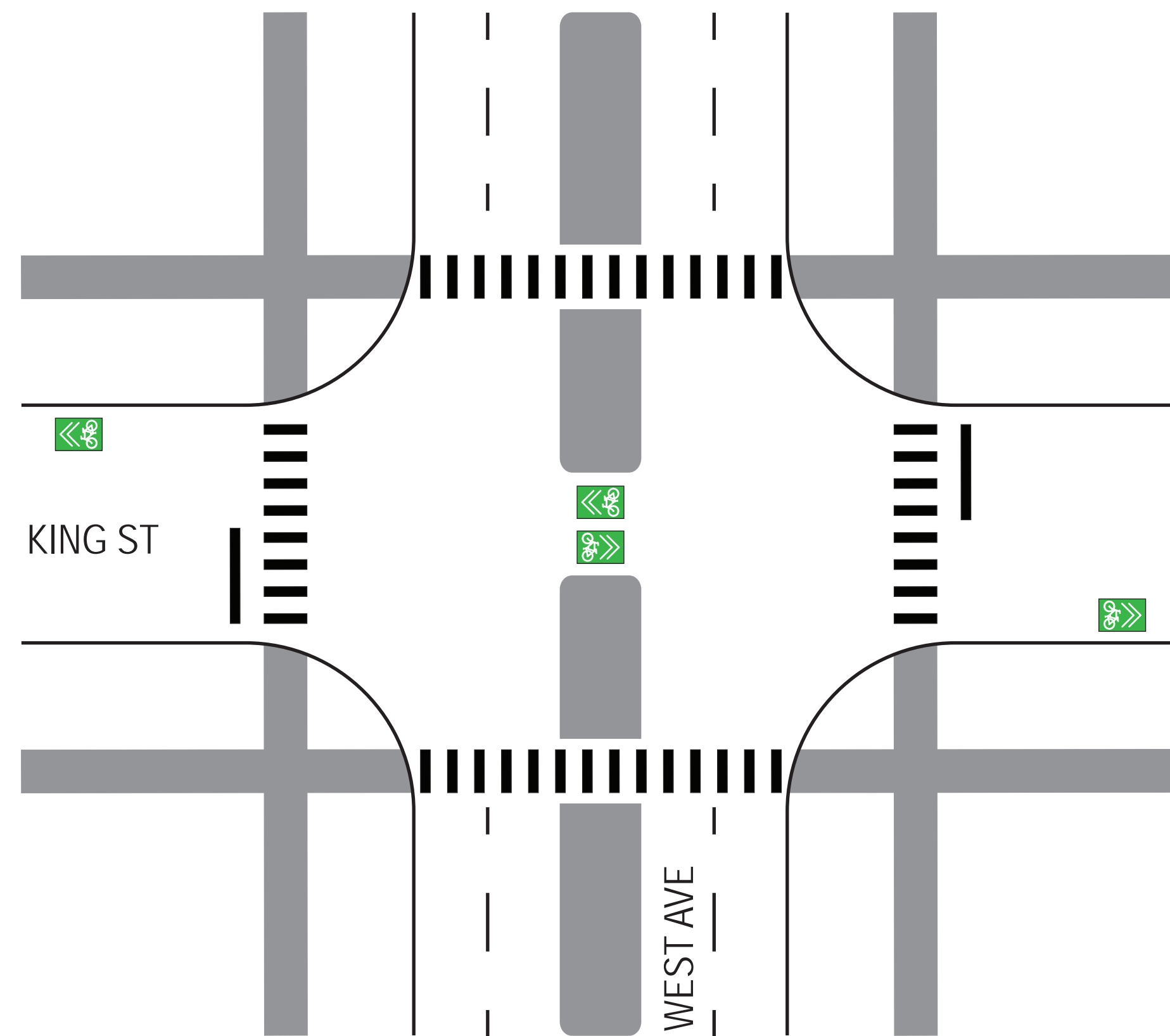
Alt A: Restrict Southbound Lefts
Provide Greenway Crossing & Median Refuge on North Leg



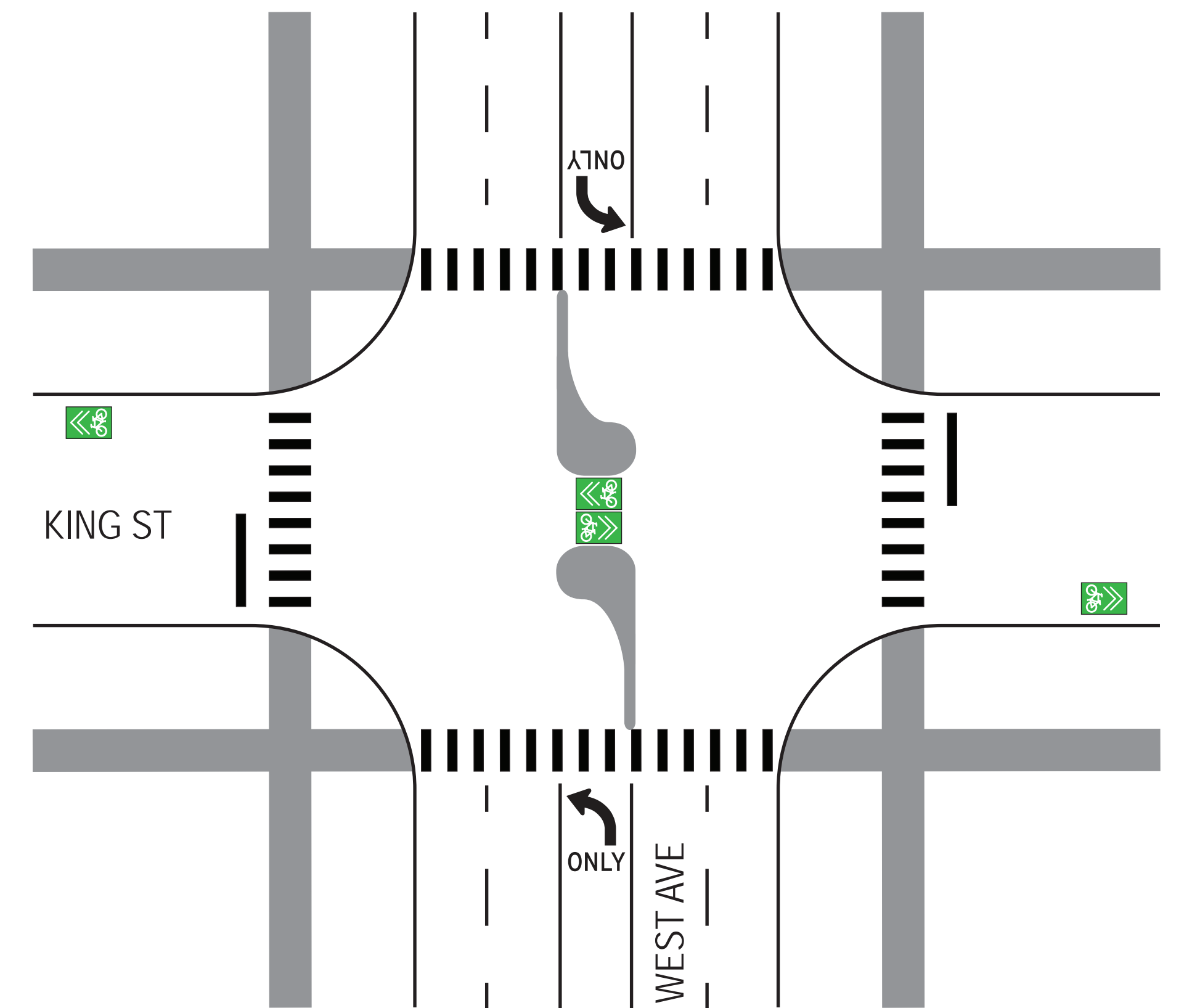
Alt B: Restrict Northbound Lefts
Provide Greenway Crossing & Median Refuge on South Leg



Alt C: Restrict All Left Turns on West
Restrict All Cross Auto Traffic on King
Greenway Crossings & Median Refuge
(Split)



Alt D: Restrict All Left Turns on West
Restrict All Cross Auto Traffic on King
Greenway Crossing & Median Refuge
(Single)



Alt E: Median Cutouts for Left Turns on West
Restrict All Cross Auto Traffic on King
Greenway Crossing on King
(Note: Greenway Crossing Gap < Automobile Width)

Record of Written Comments Received

From: Lenz, Bernard

Subject: RE: Meeting Notice: Neighborhood Greenway Design Workshop - 4/21 @ 5:30PM, English Lutheran Church

I won't be at the meeting as I have a previous commitment, but my comment is the bike Blvd should parallel to roads used as thruways by cars, and thus limited access for cars (one way in one way out of a block) is OK. You have to get cars off the Bike Blvd to make it successful. So King and 17th are great examples where this can happen and minimal impacts on car traffic will occur. Great spots to go with a bike Blvd.

However, I have a question about Farnam being a bike Blvd. Since Farnam is traveled by many motor vehicles in that area as a thru road (a minor arterial really) putting a bike Blvd treatment on it that limits thru car traffic will be very unpopular with motorists. There are few direct east west thru paths other than this for the cars. Was it considered that a Bike Blvd should parallel Farnam instead of be on Farnam?

I feel strongly that to be successful a bike blvd should not compete with or take over a route preferred by cars. Adams or Tyler, or even Redfield (parallel to Green Bay) or Johnson (parallel to Jackson Street) would be better candidate for a Bike Blvds. Leave Farnam a shared lane bike route similar to 16th, Main, and Pine Street. Type A bikes can crack along with traffic. The class C Biker family that needs the bike blvd will be able to do the slight jog at Park Street (or similar jog on the other options) as needed.

Please submit this as an official comment.
