MADISON MULTIMODAL TRANSPORTATION PLAN

MADISON IN MOTION

Madison in Motion Draft Plan

-Policy & Mission Statements

-System Visions (Routes and Networks)

-Facility Design Best Practices/Innovative Service Delivery

-Reference to Standing Planning Processes

-Follow-Up Planning and Refinement

-Implementation Actions/Projects

Madison in Motion Planning Process

-Two Community-Wide Meetings (Affirm Mission, Identify Key Issues/Concerns, Land Use Vision)

-Targeted Stakeholder/Focus Group Outreach

- Low-Income and Senior Representatives
- Business Interest Groups
- Mode Advocacy Groups (Biking, Transit)
- Millenials (100 State)

-Feedback via Project Web Page

→ Draft Recommendations Developed (Desire for Broader Community and Stakeholder Review: Summer 2016)

Madison in Motion Draft Plan

Major Themes for Recommendations

-Land Use/Activity Center Planning

-Bus Rapid Transit (BRT) & Supporting Transit Services

-Bicycle Route/Facility Implementation

-Tier 1 & Priority Pedestrian Projects Implementation

-Street Designs to Incorporate All Transportation Modes

-Transportation Demand Management (TDM)

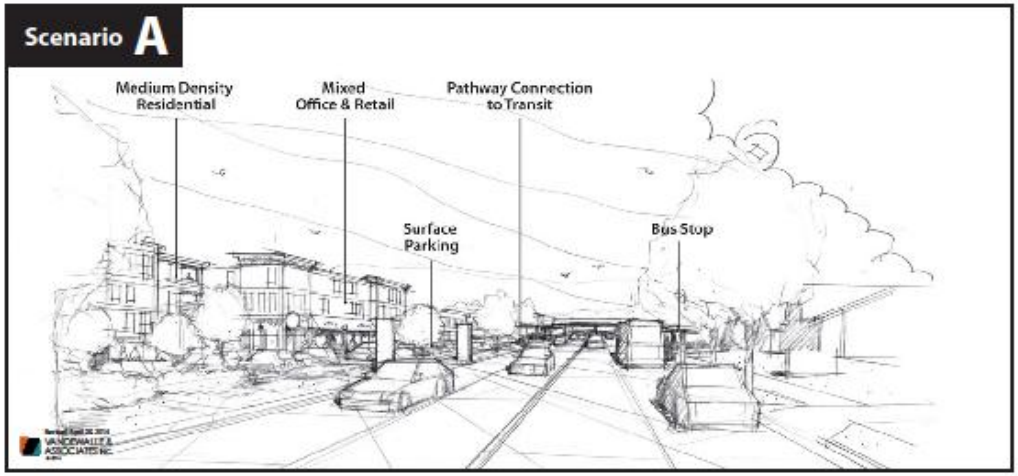
-Setting the Stage: Emerging Transportation Technologies

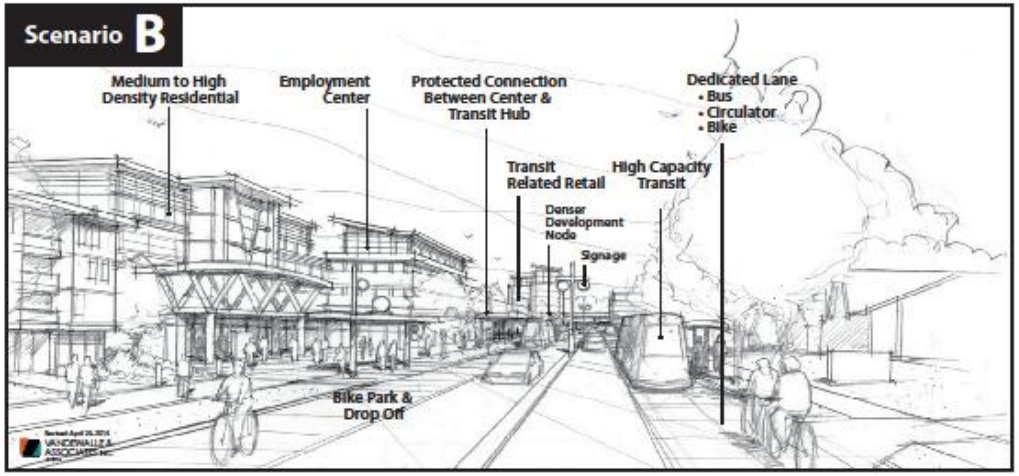
→ **Racial Equity/Social Justice (RESJ) Application**

"Activity Center" Concept

- Transit-Oriented Development
- High density **mix of land uses** (commercial, residential, community services, etc.)
- **High frequency transit** services/**transfer** opportunities
- Structured auto parking to support development (possible **park-and-ride for commuters**)
- Secure **bicycle parking**
- Engaging **pedestrian environment** (lighting, streetscapes, etc.)

Milwaukee Street - *An Urban Corridor Example*





"Activity Center" Concept: An Example

General Scenario Assumptions

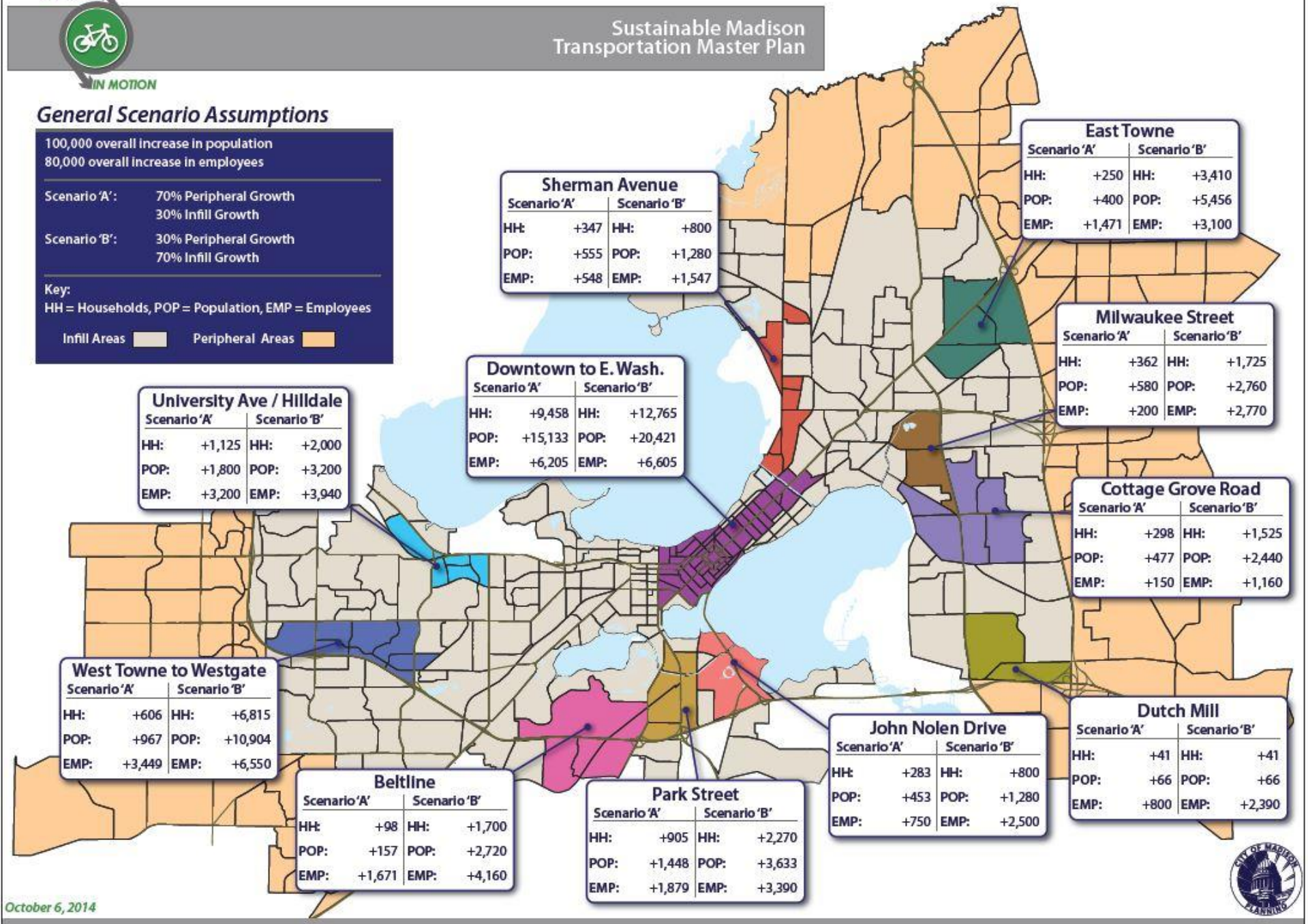
100,000 overall increase in population
80,000 overall increase in employees

Scenario 'A': 70% Peripheral Growth, 30% Infill Growth

Scenario 'B': 30% Peripheral Growth, 70% Infill Growth

Key:
HH = Households, POP = Population, EMP = Employees

Infill Areas Peripheral Areas



Sherman Avenue

Scenario 'A'		Scenario 'B'	
HH:	+347	HH:	+800
POP:	+555	POP:	+1,280
EMP:	+548	EMP:	+1,547

East Towne

Scenario 'A'		Scenario 'B'	
HH:	+250	HH:	+3,410
POP:	+400	POP:	+5,456
EMP:	+1,471	EMP:	+3,100

Milwaukee Street

Scenario 'A'		Scenario 'B'	
HH:	+362	HH:	+1,725
POP:	+580	POP:	+2,760
EMP:	+200	EMP:	+2,770

Downtown to E. Wash.

Scenario 'A'		Scenario 'B'	
HH:	+9,458	HH:	+12,765
POP:	+15,133	POP:	+20,421
EMP:	+6,205	EMP:	+6,605

University Ave / Hilldale

Scenario 'A'		Scenario 'B'	
HH:	+1,125	HH:	+2,000
POP:	+1,800	POP:	+3,200
EMP:	+3,200	EMP:	+3,940

Cottage Grove Road

Scenario 'A'		Scenario 'B'	
HH:	+298	HH:	+1,525
POP:	+477	POP:	+2,440
EMP:	+150	EMP:	+1,160

West Towne to Westgate

Scenario 'A'		Scenario 'B'	
HH:	+606	HH:	+6,815
POP:	+967	POP:	+10,904
EMP:	+3,449	EMP:	+6,550

Beltline

Scenario 'A'		Scenario 'B'	
HH:	+98	HH:	+1,700
POP:	+157	POP:	+2,720
EMP:	+1,671	EMP:	+4,160

Park Street

Scenario 'A'		Scenario 'B'	
HH:	+905	HH:	+2,270
POP:	+1,448	POP:	+3,633
EMP:	+1,879	EMP:	+3,390

John Nolen Drive

Scenario 'A'		Scenario 'B'	
HH:	+283	HH:	+800
POP:	+453	POP:	+1,280
EMP:	+750	EMP:	+2,500

Dutch Mill

Scenario 'A'		Scenario 'B'	
HH:	+41	HH:	+41
POP:	+66	POP:	+66
EMP:	+800	EMP:	+2,390

October 6, 2014

"Activity Center" Concept: Westgate

24.00 in

"Activity Center" Concept: Dutch Mill

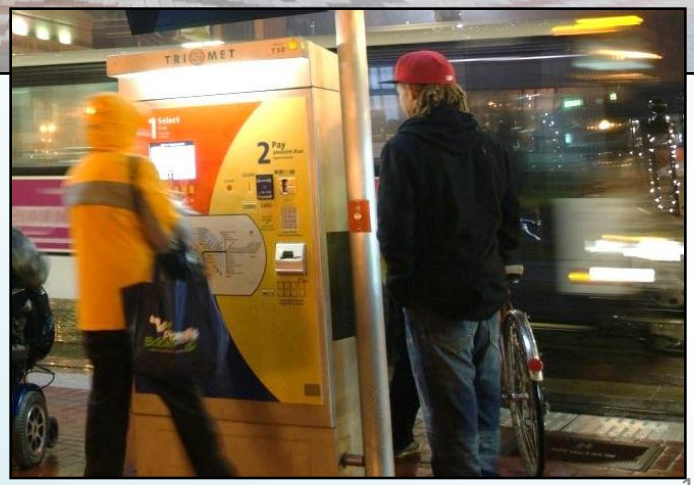
Public Transit Recommendations

- **Bus Rapid Transit (BRT)** system implementation
- **Local Bus Coordination** (route restructure recommended)
- **First-Mile/Last-Mile** planning activity
- **Park-and-Ride** planning activity
- **Regional Transit Finance** (evaluate range of funding models and sources)

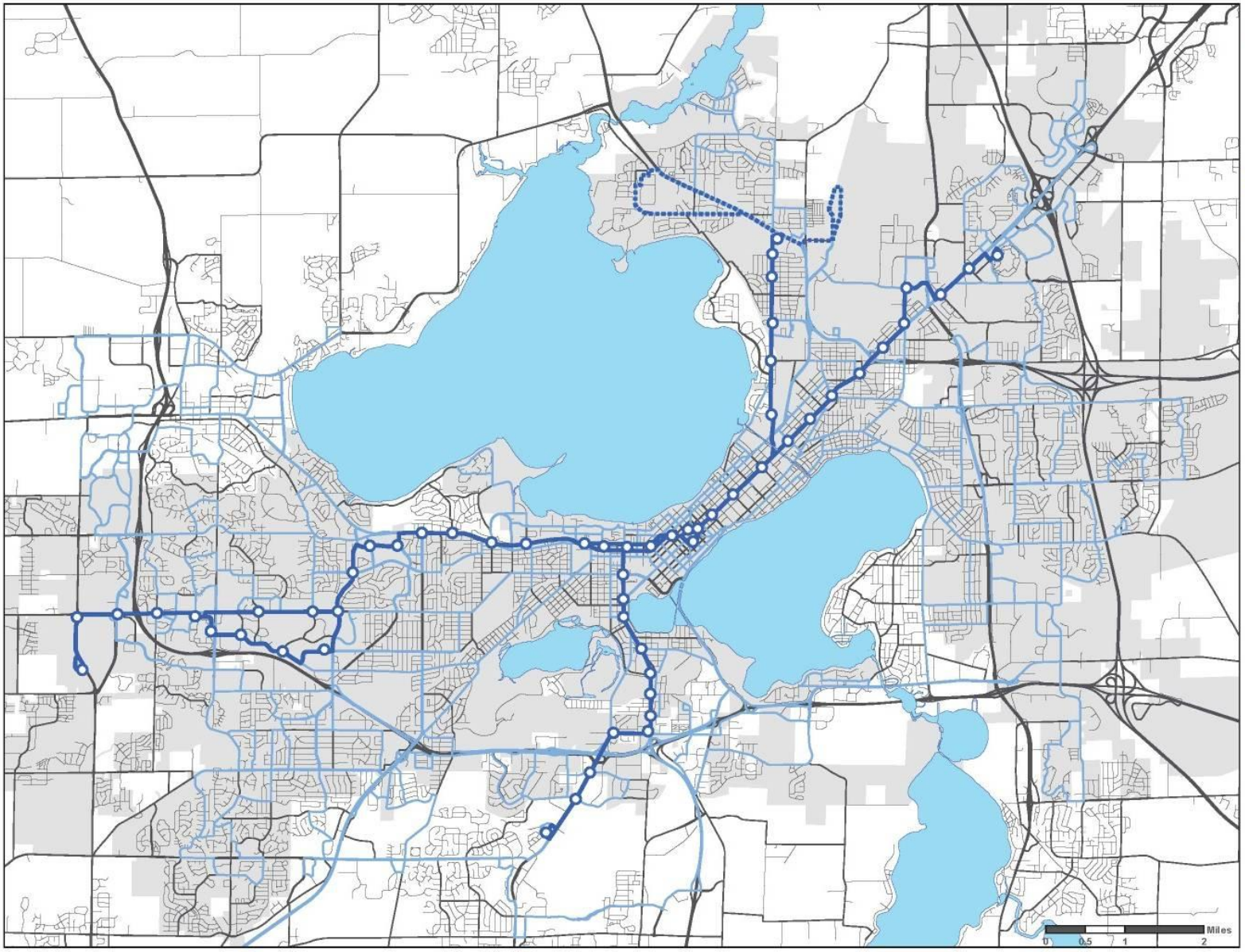
MADISON IN MOTION

Bus Rapid Transit (BRT)

Madison Urban Area System Proposal



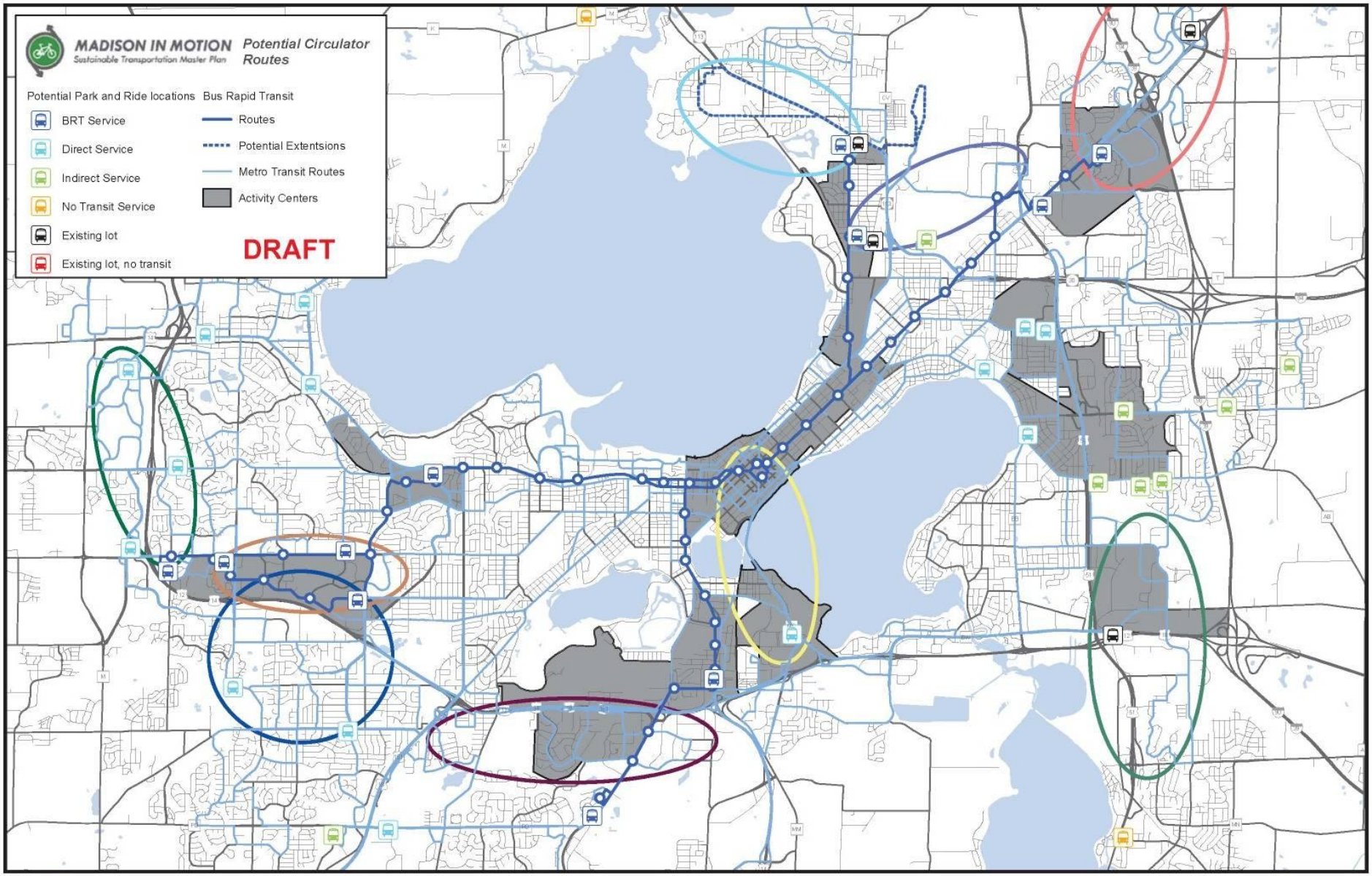
Potential Bus Rapid Transit (BRT) Routes



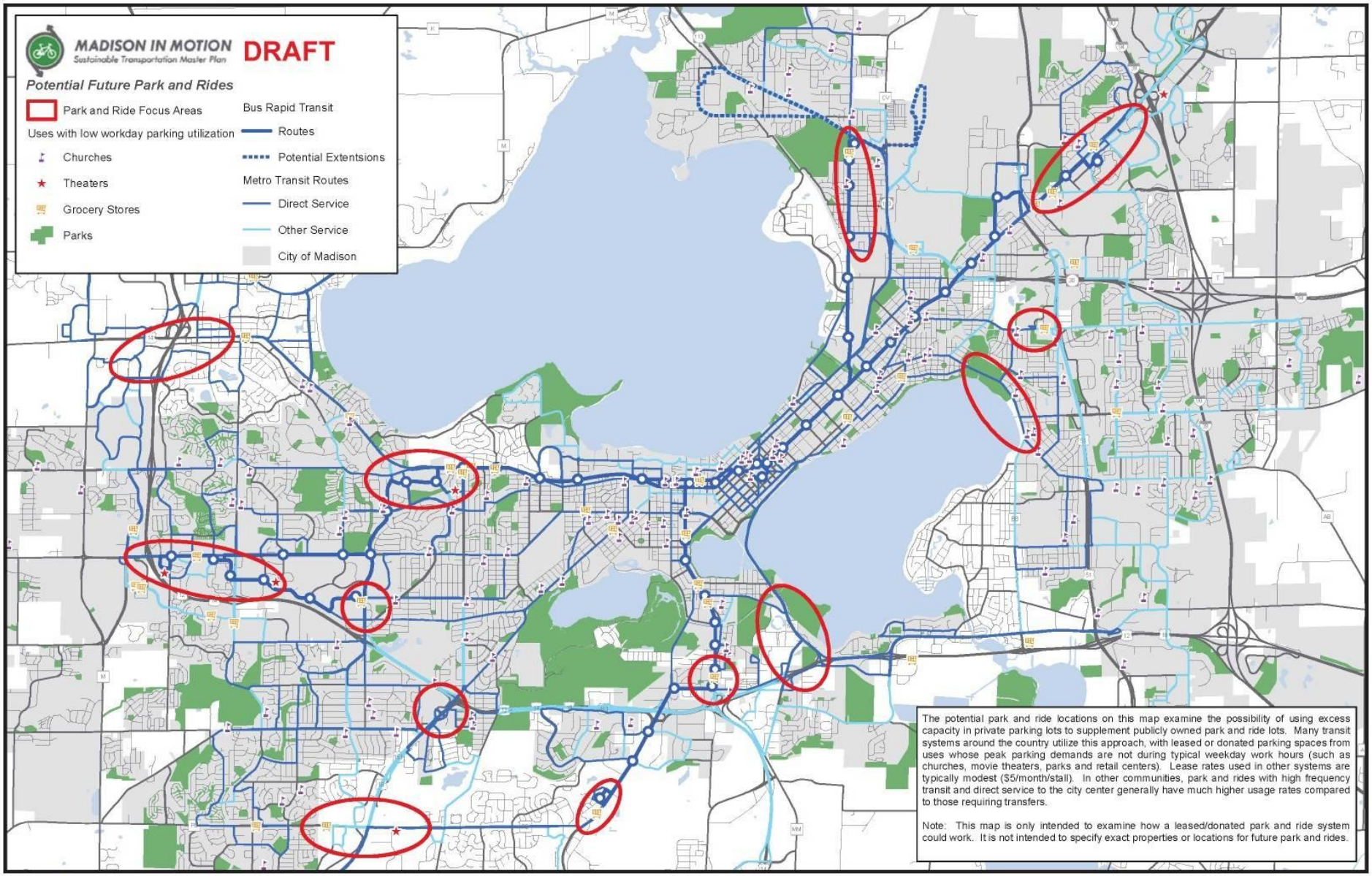
Source:
Madison Metro
MATPB (MPO)

February, 2016

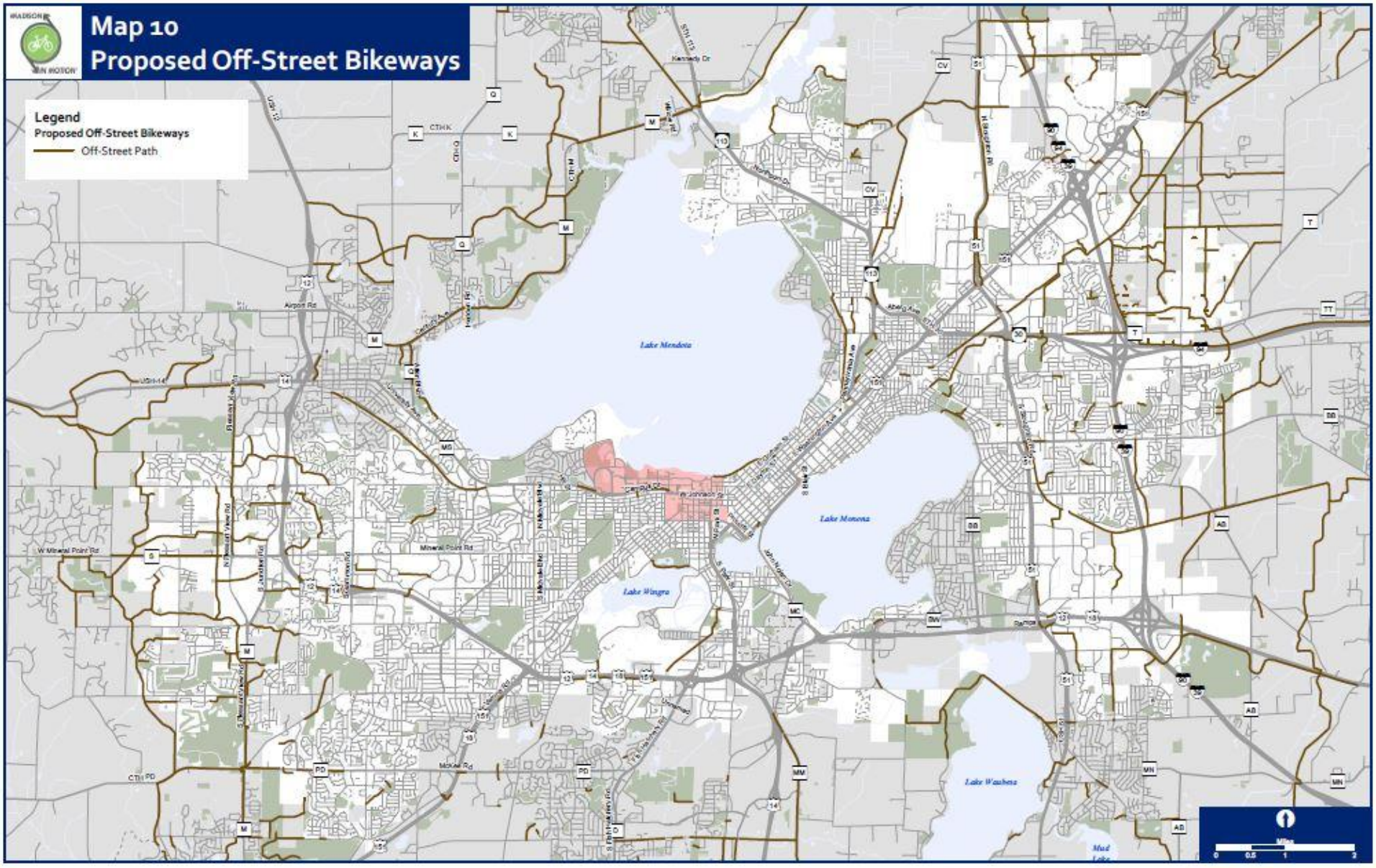
First-Mile/Last-Mile Opportunities



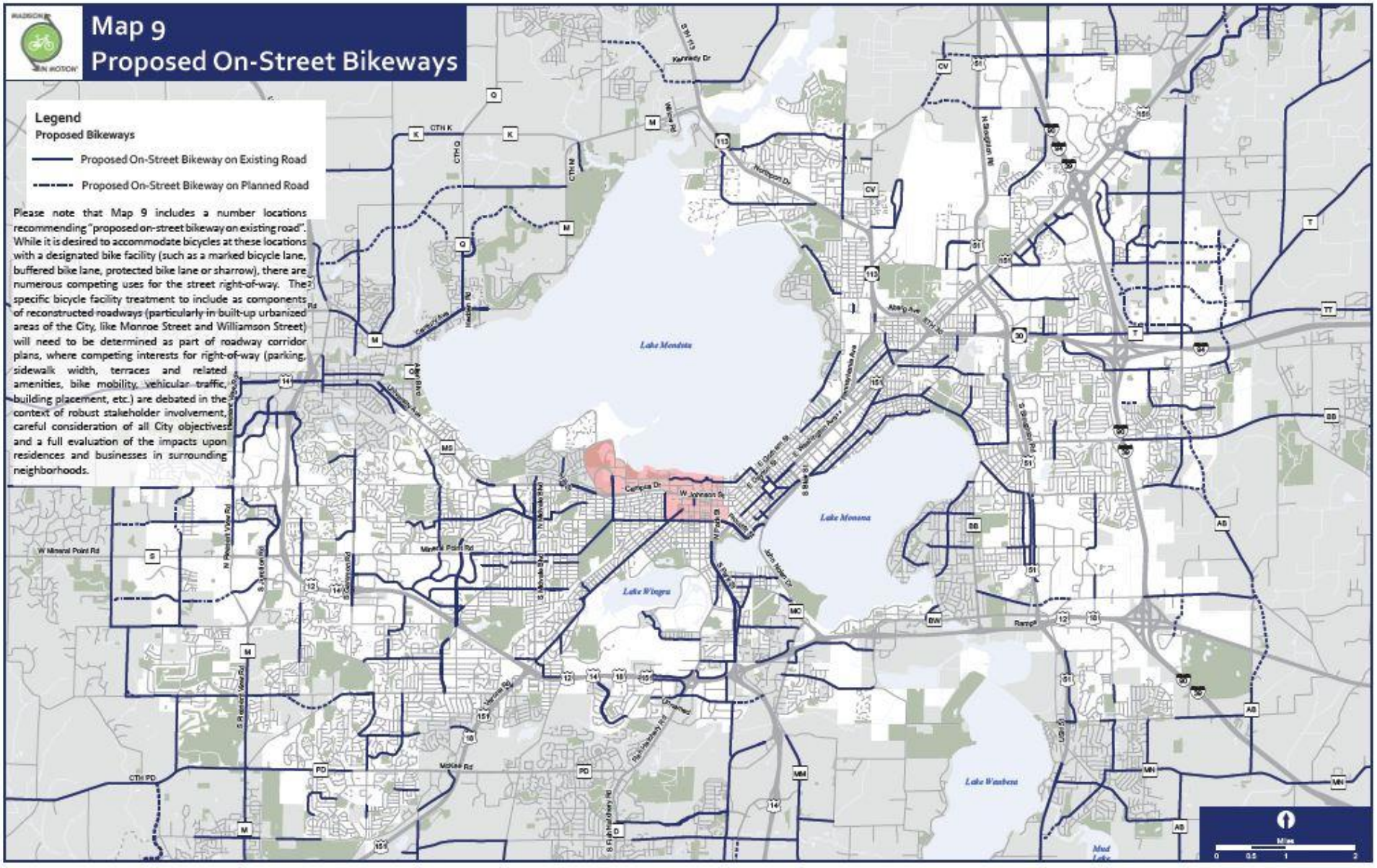
Park and Ride Opportunities



Bicycle System Recommendations



Recommended Off-Street Bicycle Facilities



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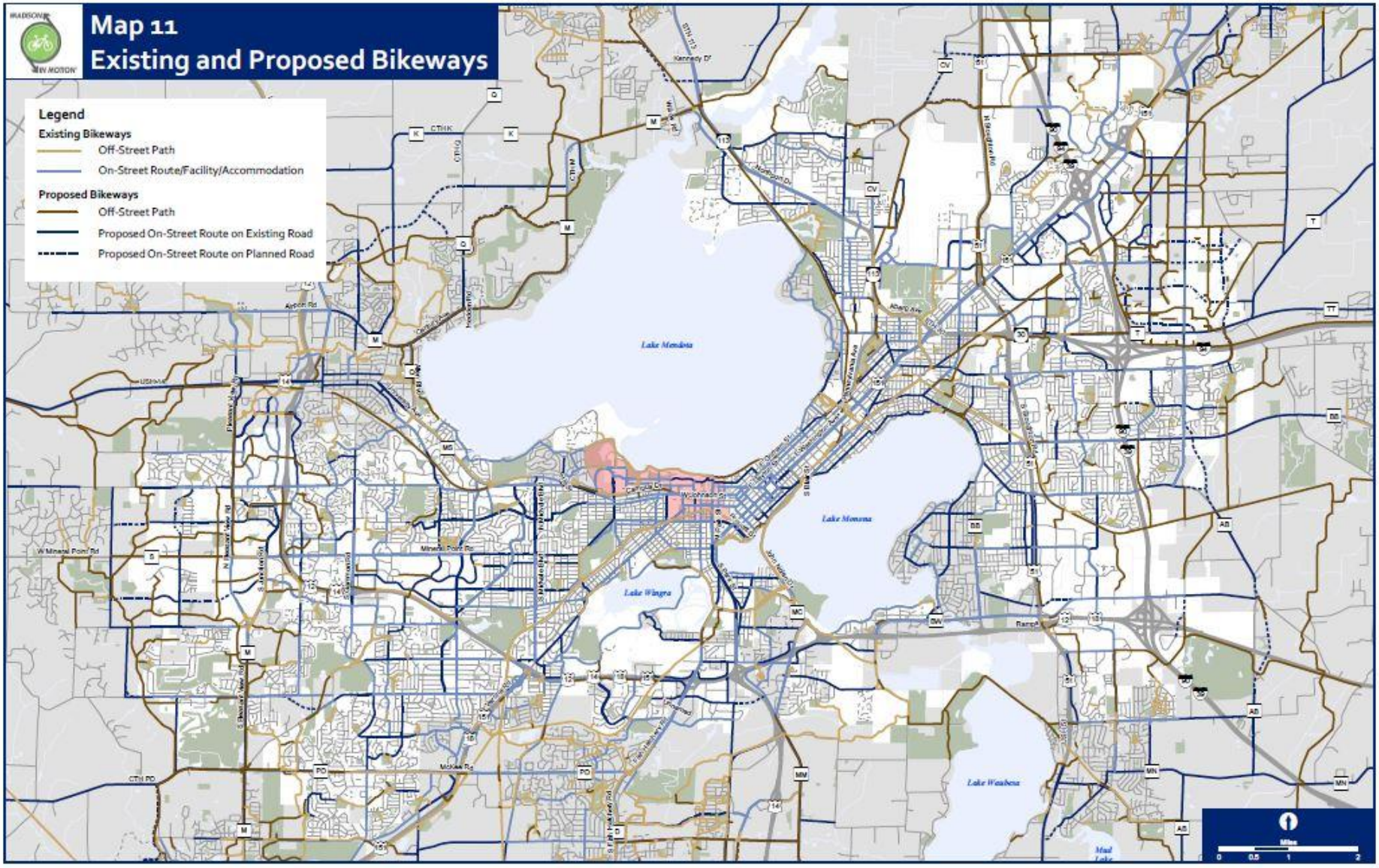


Existing and Proposed Bikeways

Innovative Bicycle Facilities

Protected Bike Lanes

Bicycle Facility Types and Treatments

Bicycle Lane – Conventional or Counterflow

- Designated space exclusively for bicyclists with pavement markings and signage
- Located adjacent to vehicle travel lanes
- Generally flows with vehicle traffic, on the right side of the street, but can be counterflow and/or on the left
- Used on medium and high volume streets
- May use green color to highlight the lane, particularly through intersections and conflict areas

Bicycle Lane – Buffered

- Conventional bicycle lanes paired with a designated painted buffer space
- Buffer may separate the bicycle lane from the motor vehicle travel lane, the parking lane or both
- Increases operating space and comfort for bicyclists
- Typically used on medium and high volume streets
- May use green color to highlight the lane, particularly through conflict areas

Bicycle Lane – Protected

- Bicycle facility within the street right of way that provides physical separation from the travel lane
- Separation may be provided with curbs, bollards, parked cars or other means
- Cycle track may be at street level, sidewalk level or an intermediate level
- Typically used on medium and high volume streets with few intersections or driveways

Shared Lane Marking ("Sharrow")

- Street markings used to indicate a shared lane for bicyclists and motorists
- Sharrows indicate to bicyclists where they should position themselves in a lane
- Sharrows reinforce to motorists that bicyclists belong in the lane
- Typically used on low- and medium-volume streets where bicycle lanes cannot be accommodated

Bicycle Boulevard

- Streets with low motorized traffic volumes and speeds designated to provide priority to bicyclists
- Discourage speeding and cut-through traffic
- Often used to connect schools and parks and as an alternative to a nearby busy street
- May include traffic calming devices such as speed tables or traffic circles

Shared Use Path / Sidepath

- Path fully separated from a street or road
- Typically paved and 10 - 12 feet wide
- Open to most non-motorized uses
- Often installed in rail corridors, utility corridors or along streams, rivers or other linear features
- Sidepaths are shared use paths parallel to a street
- Sidepaths can present safety and operational challenges at intersections and driveways

Bicycle Signal

- Traffic signal to indicate bicycle movements at an intersection
- Can be user activated or a programmed signal phase
- Bicycles and motor vehicles have different movement cycles

Bicycle Crossing

- Exclusive street crossing for bicycle facilities or shared use paths.
- May be parallel to an adjoining street or crosswalk (ie. the Monroe/Regent crossing) or a diagonal crossing of an intersection (ie. Atwood @ Dunning)
- Reduces conflicts with pedestrians and motor vehicles
- Typically use a bicycle signal to control movements

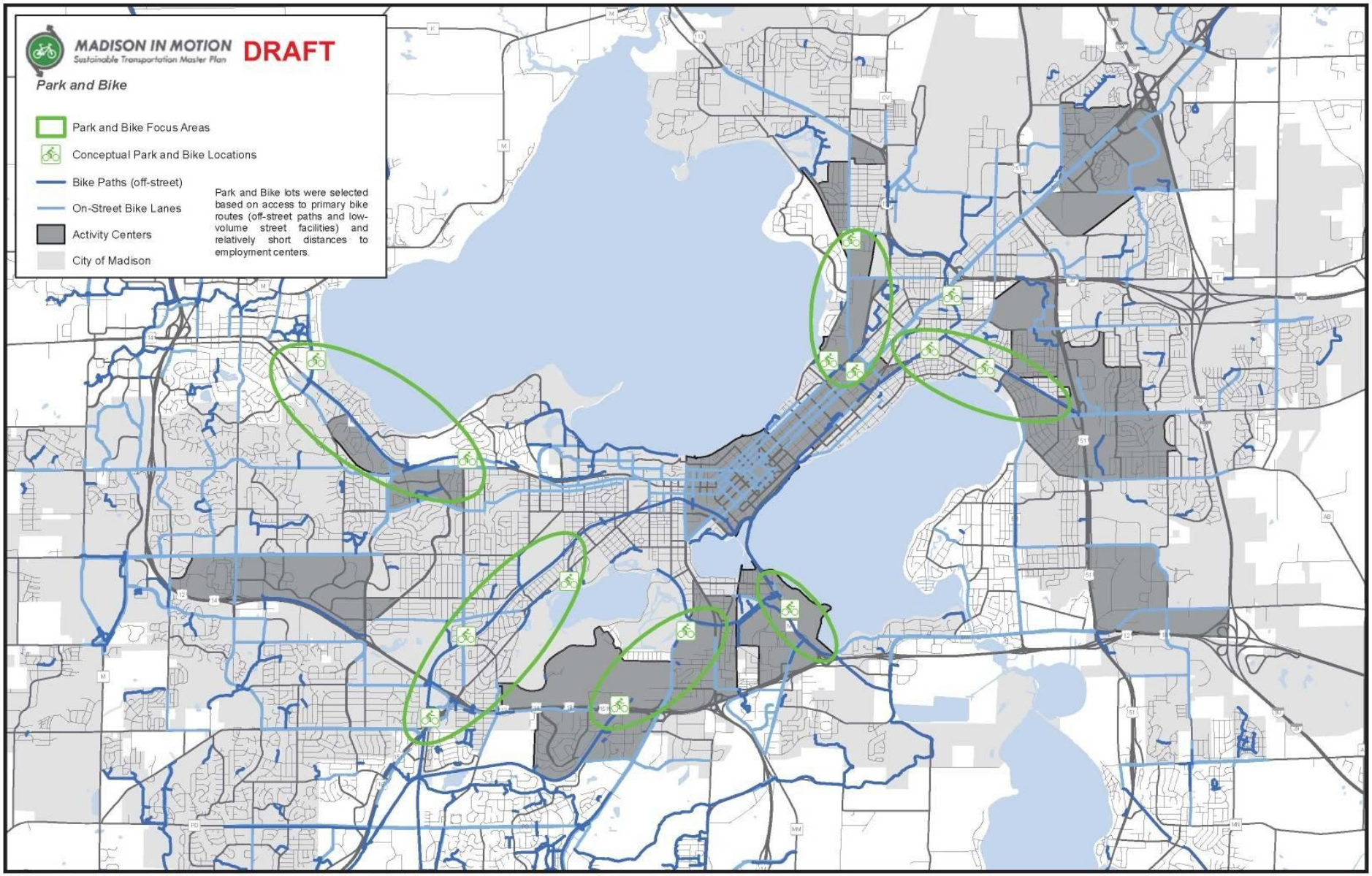
Colored Pavement Treatment

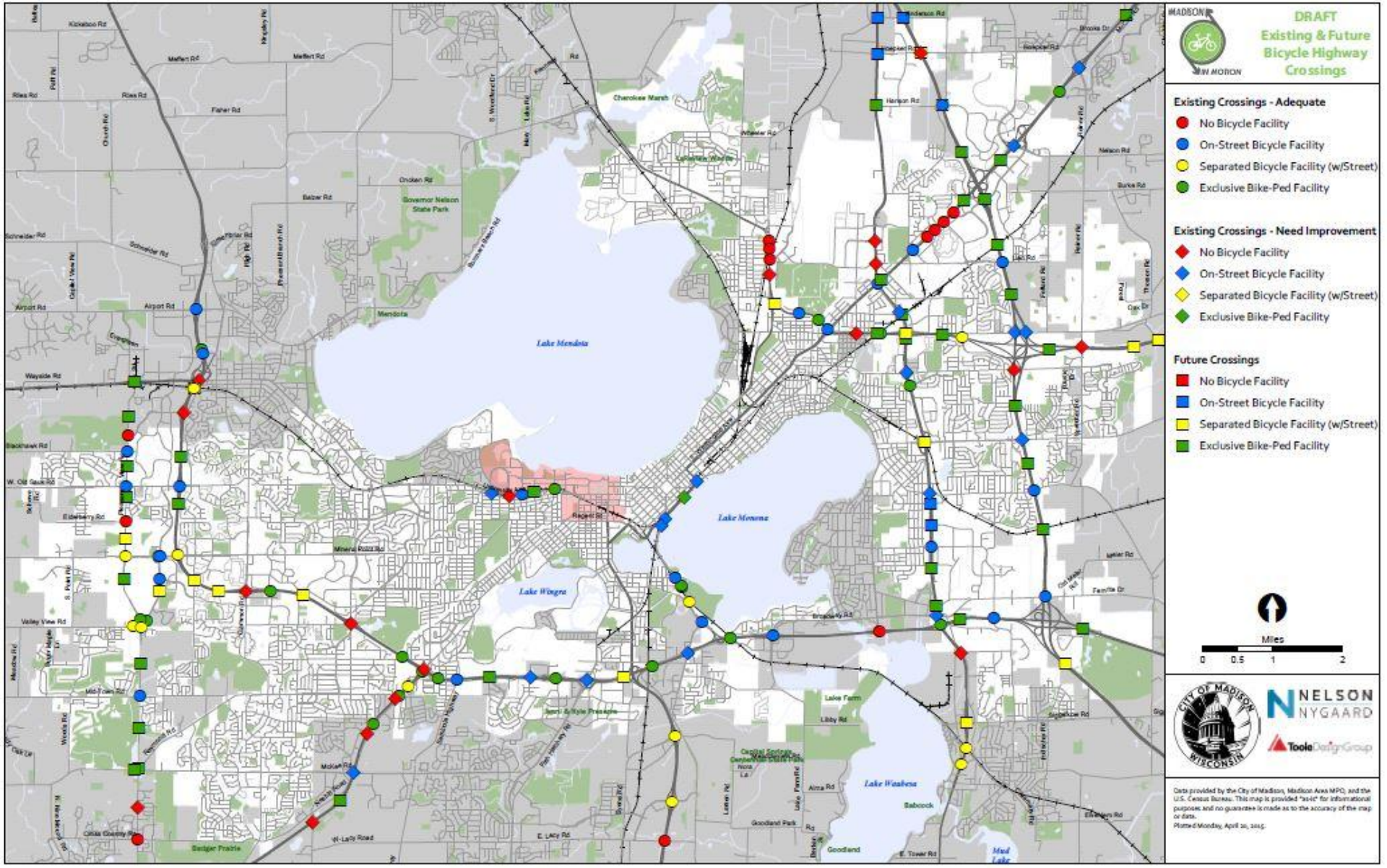
- Colored lane markings to highlight bikeway crossings of streets, continuous lanes, or potential conflict areas
- Green colored and often marked with cyclist icon
- May be solid colored or striped

Wayfinding Signage

- Signage to indicate direction to major destinations, areas of interest and key bicycle facilities
- May include distance and approximate travel time
- Placed at key intersections and decision points

Park and Bike Opportunities

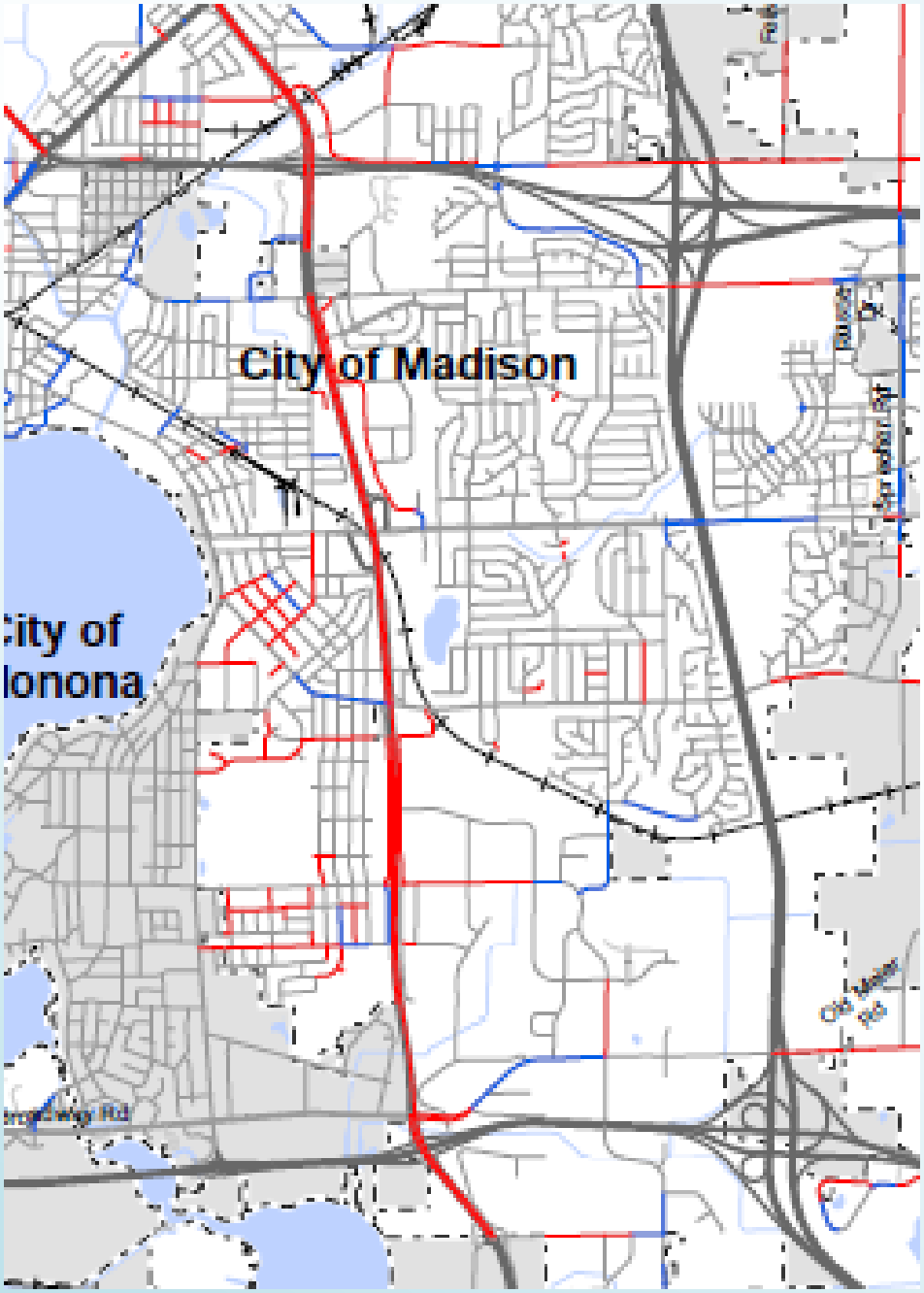




Bicycle/Pedestrian Facility Crossing Evaluation

Addressing System Gaps & Barriers

Pedestrian Network



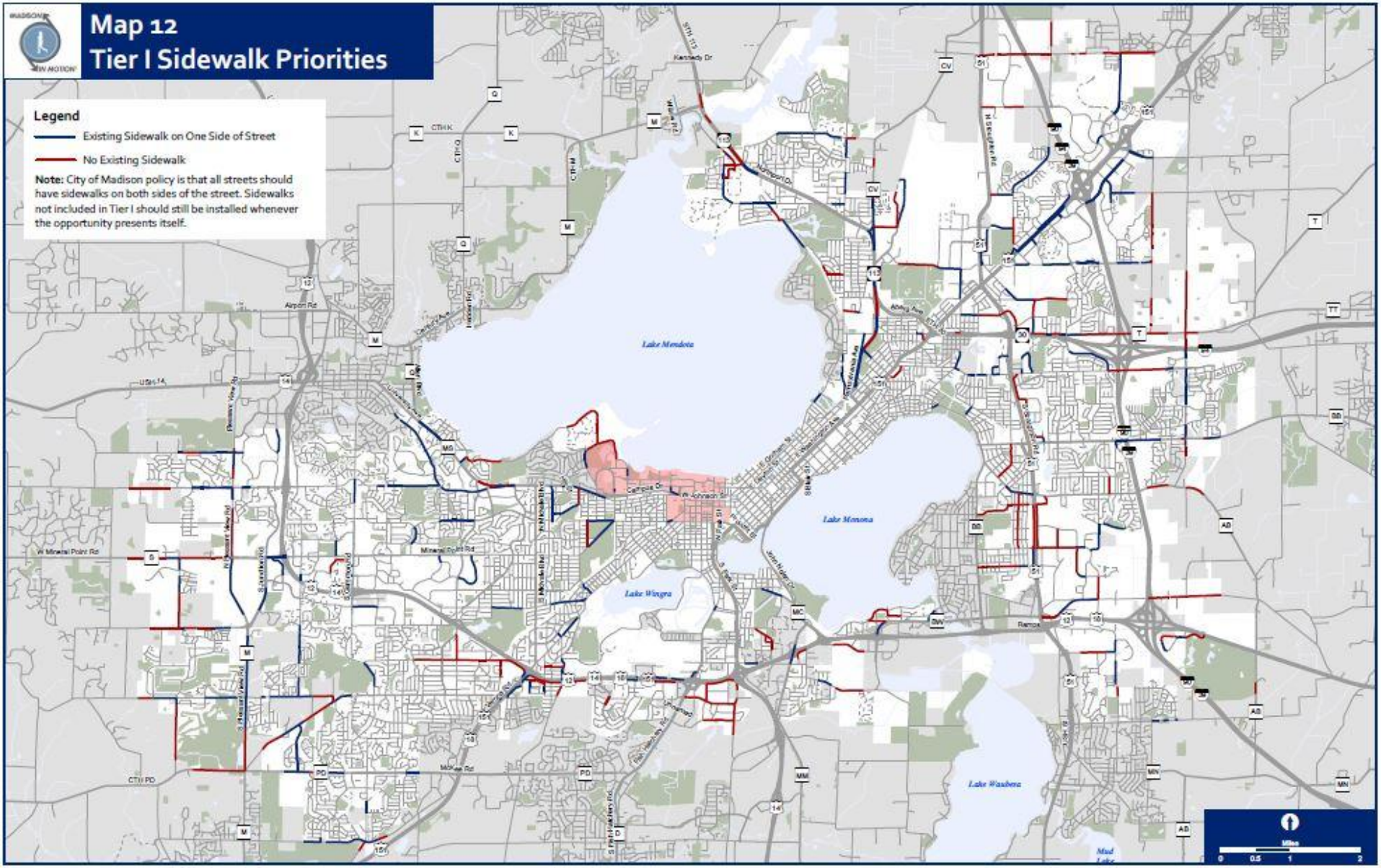
Sidewalk Evaluation: East Side

MADISON IN MOTION

Recommendations (Policy)

→ **Continue the City's sidewalk installation policy** in new development areas and existing neighborhoods. Sidewalks should be installed on both sides of all streets in all new subdivisions; sidewalks should also be installed on both sides of all existing streets, as they are reconstructed

→ **Prioritize Tier 1 Streets for sidewalk additions** without street reconstruction. Compare pavement condition data to identify high-need streets that are unlikely to be reconstructed soon. These pedestrian corridors may be appropriate for sidewalk installation prior to street reconstruction.

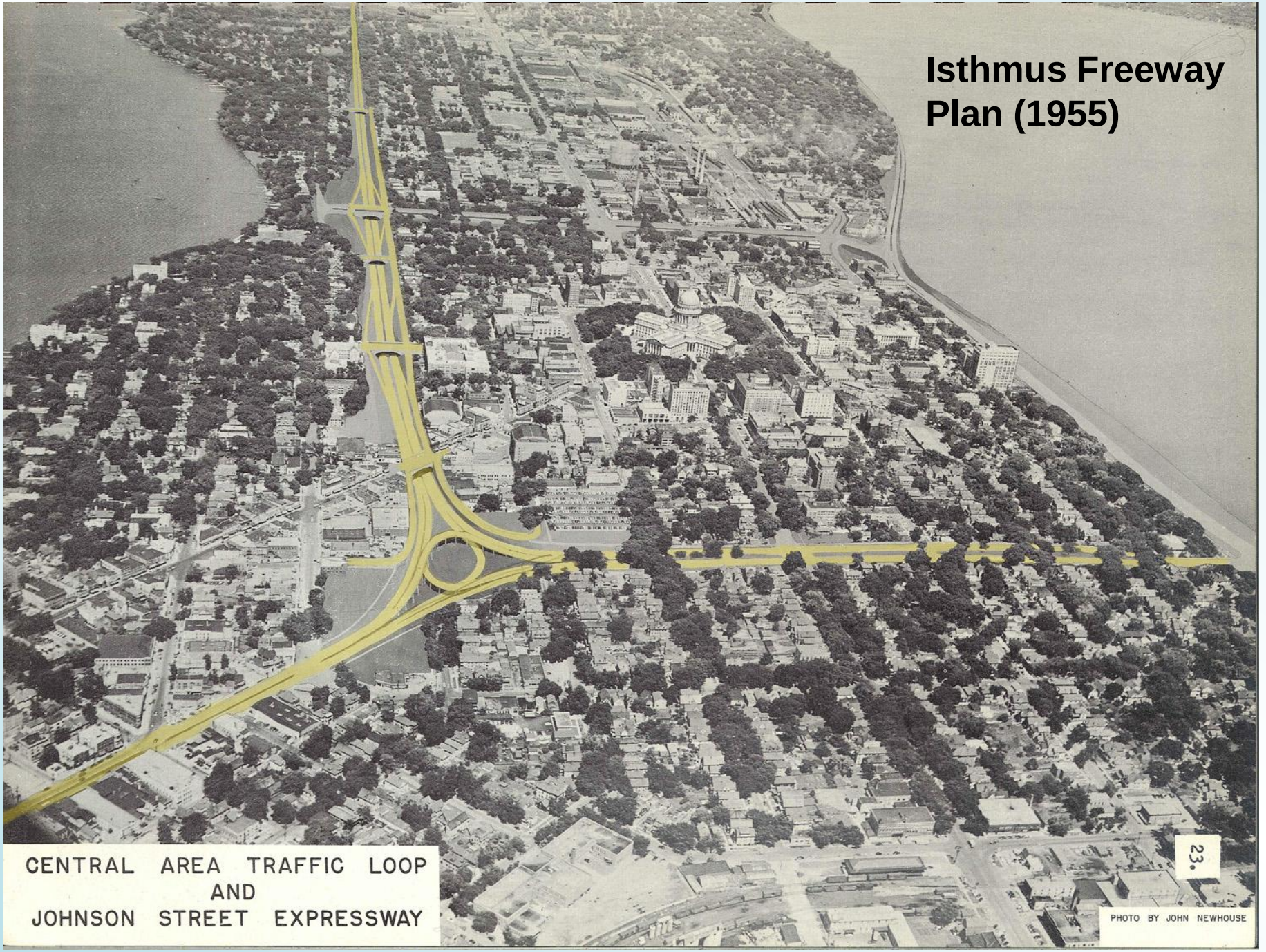


Recommended Tier I Sidewalk Facilities

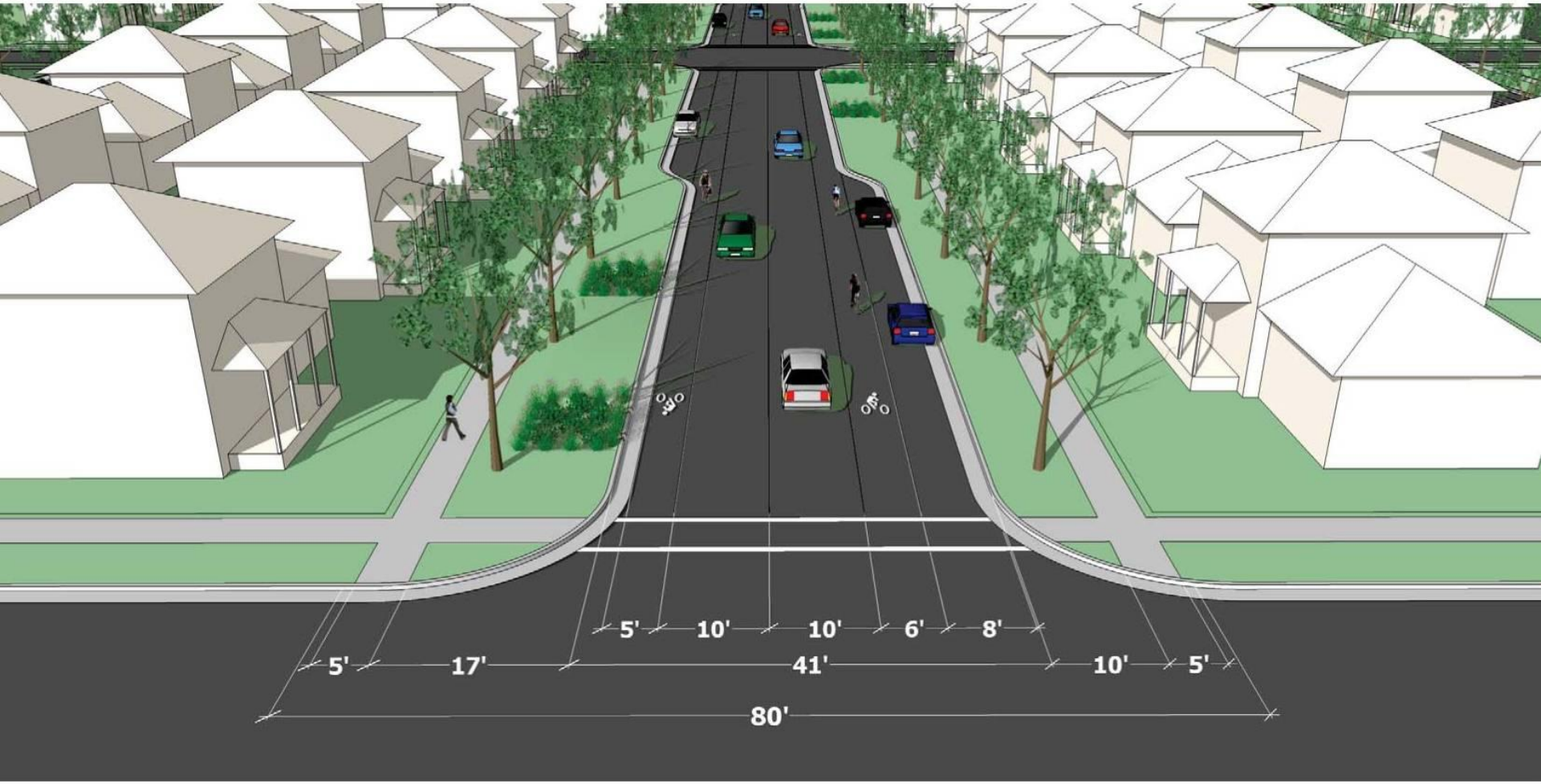

Terminal 2
Right Lane
STATE
LAW
YIELD
TO
WITHIN
CROSSWALK


ONLY
PED

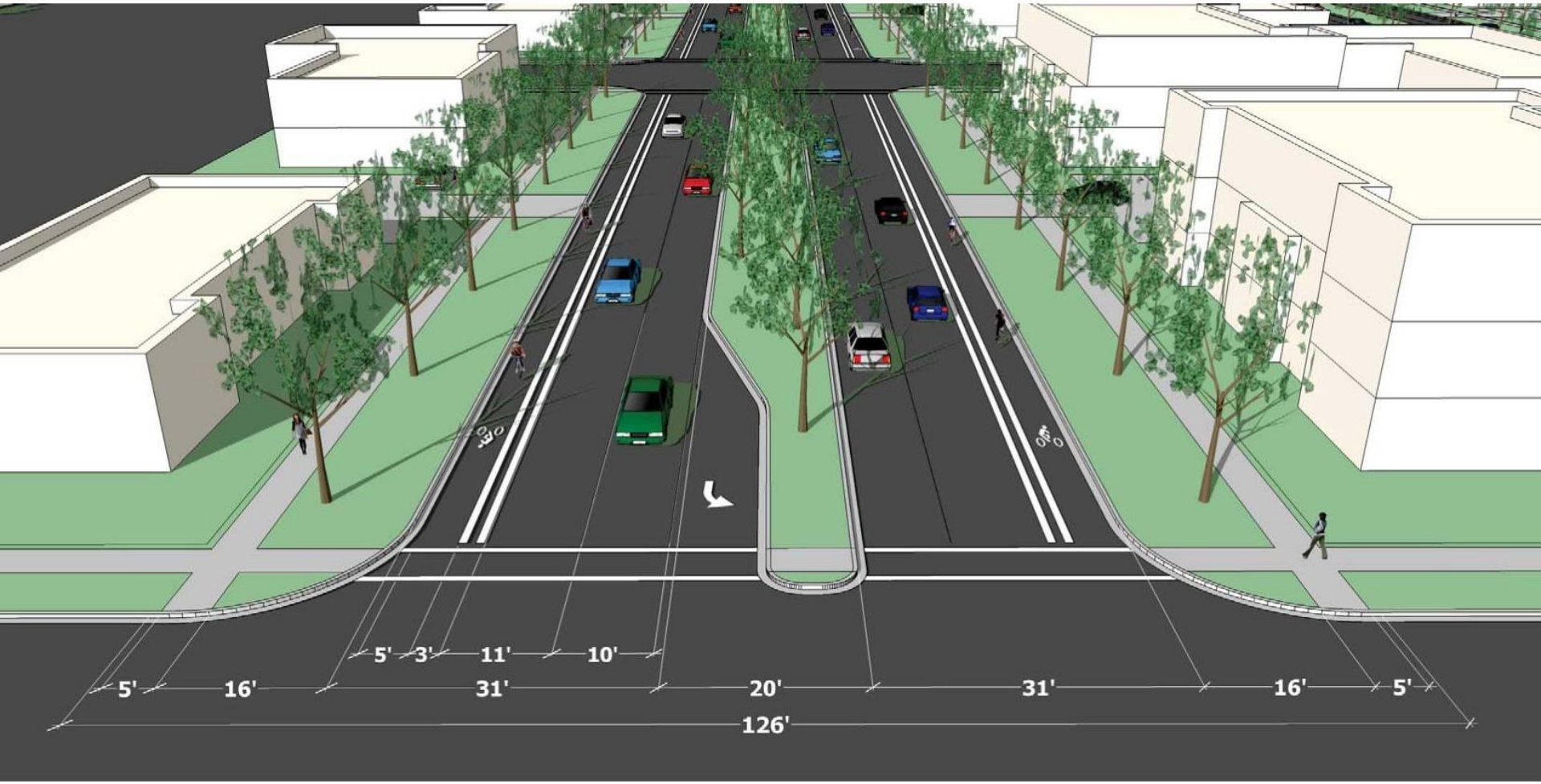
Streets and Roadway Recommendations


Isthmus Freeway
Plan (1955)
CENTRAL AREA TRAFFIC LOOP
AND
JOHNSON STREET EXPRESSWAY
23.
PHOTO BY JOHN NEWHOUSE

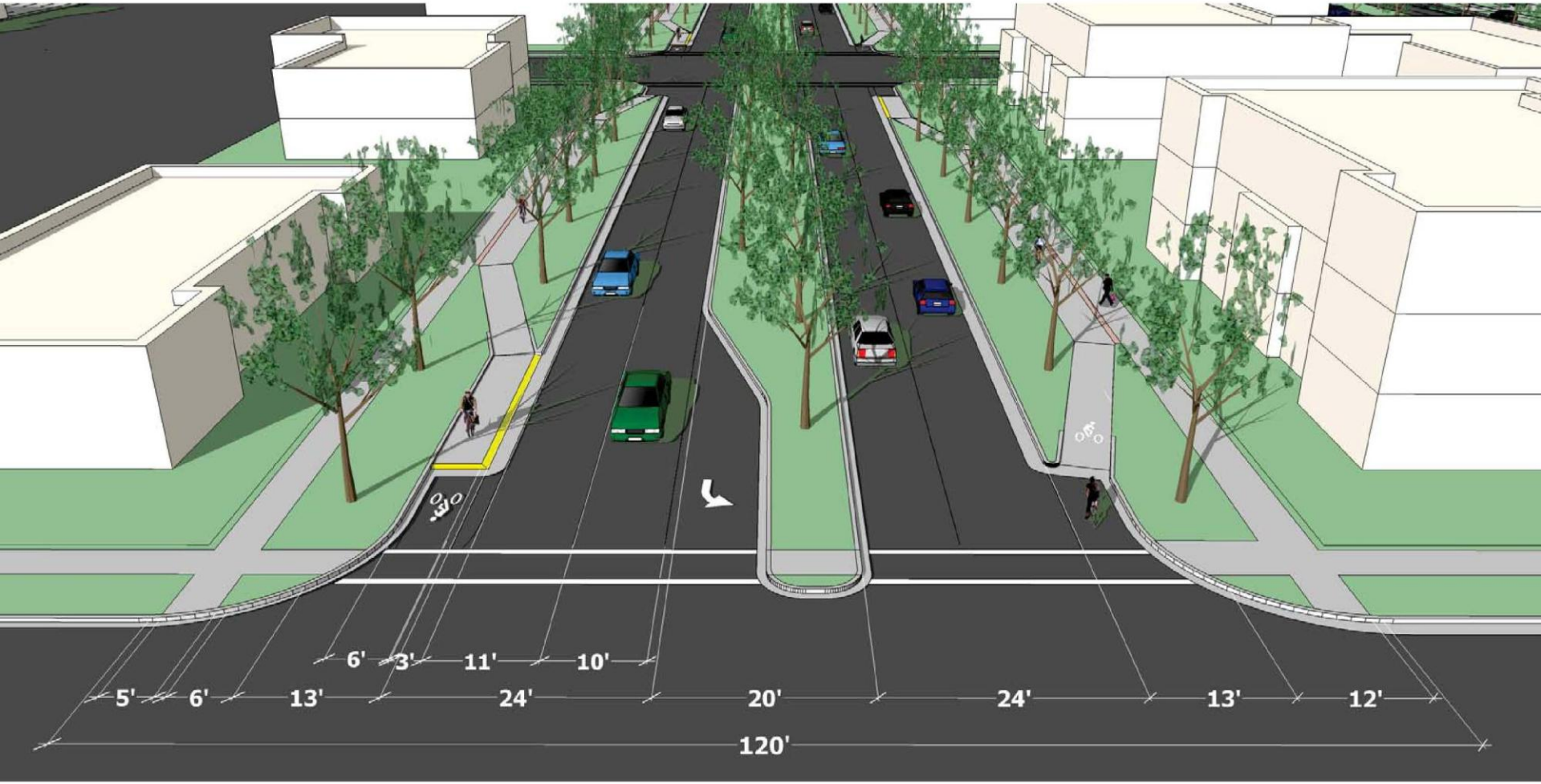
Street Typologies - Collector Chicane



Street Typologies - Arterial Buffered Bike Lane



Street Typologies - Arterial Cycle Track



Transportation Demand Management (TDM)

Recommendations (Follow-Up Planning/Refinement)

⟶ Institute employer-based **Transportation Demand Management (TDM)** measures as part of a comprehensive City-wide TDM program, in order to enhance the desirability of non single-occupancy vehicle (SOV)-based transportation modes – including public transit, ridesharing, bicycle and pedestrian transportation.

⟶ Develop a prototype **Transportation Management Association (TMA)** in the City of Madison, at an appropriate area of the City (such as downtown Madison, the Capitol East District or UW Research Park), as a mechanism to organize individual employers and administer TDM initiatives.

Transportation of the Future

- What is on the Horizon ?

Leveraging Emerging Transportation Technology

→ Implement Intelligent Transportation Systems (ITS) Plan

Implement Pilot Projects, as Appropriate

→ Real-Time Data re: Transportation Options

→ All-Mode Payment Cards (T-Card: transit, parking, car share, etc.)

→ Car Sharing Services (Car-2-Go, Zip Car, other?)

→ Electric Bicycles/Bike Sharing (B-Cycle)

→ Driverless Vehicles and Connected Vans

→ Fully-Automated Parking Facilities

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MADISON MULTIMODAL TRANSPORTATION PLAN

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