

City of Birmingham Draft Multi-modal Transportation Plan



**City Commission Public Hearing
Monday, November 25, 2013
7:30 pm**

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The Greenway Collaborative, Inc.
Ann Arbor, Michigan**



**The Greenway
Collaborative, Inc.**





Planning Process

- Started September 2012
- Web survey in October
- Visioning workshop in January
- Preliminary Plan Open House in February
- May Draft Plan
- June Draft Plan
- July Draft Plan
- Current October Draft Plan Under Consideration



And monthly meetings with the project
Steering Committee



Third Public Hearing

- October 14, 2013 Draft
- First Planning Board Public Hearing held in July:
 - Added Executive Summary
 - Changes to the Intersection Improvement section
- Second Planning Board Hearing held in September
 - Minor Changes to Glossary
 - Clarification on How the Plan will be Used



The plan also received public input from a web survey and two public workshops



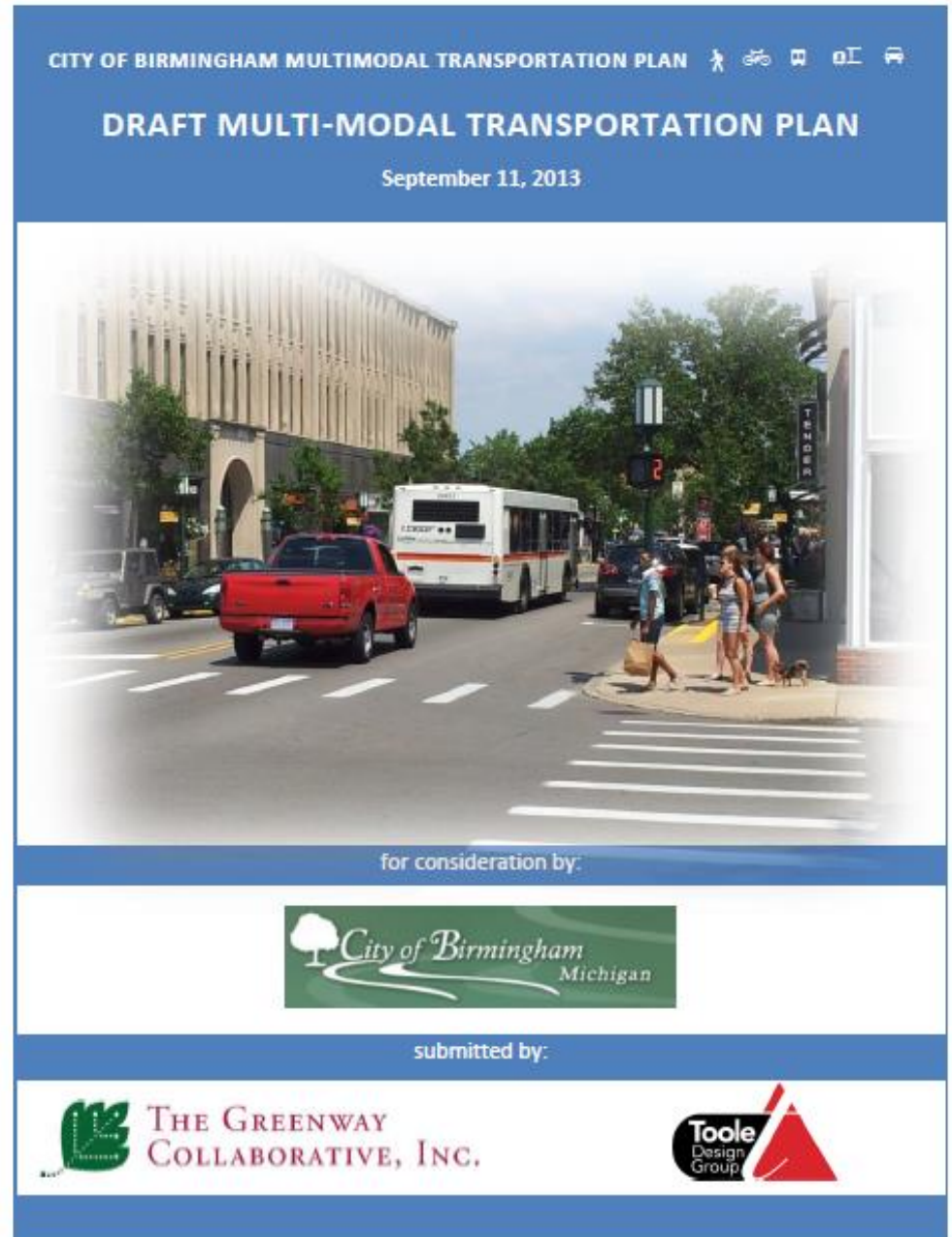
Changes from the September Draft

No substantial changes since review and recommendation of approval from Planning Commission

- Fixed Minor Typos
- Fixed Glossary of Terms

Public input since that time

- Concerns with 4 to 3 lane conversion on West Maple
- Concerns with removing signal option on Lake Park and West Maple





- Most residents are within convenient walking and bicycling distance to the majority of destinations in the City.

[illegible]



The Cost of Doing Nothing

- From 2004 through 2011 automobiles struck:
 - 67 Pedestrians
 - 44 Bicycles
 - Average one a month
- Tremendous physical and emotional toll on person hit and drivers
- Comprehensive economic cost nearly 17 million dollars
 - \$2.1 million per year
 - \$104 per resident each year
- Cost of Phase 1 & 2 about \$2.3 million



If phase 1 & 2 reduced crashes as little as 14% this would be viewed as a success from a cost benefit perspective



Cost of Physical Inactivity

- Metro Detroit's residents
 - 1/3 overweight
 - 1/3 obese
 - 28% no physical activity
- Average cost per person of physical inactivity in 2002 was \$1,175
 - Cardiovascular disease
 - Obesity
 - Diabetes
 - Osteoporosis
 - Mental health disorders
 - Some cancers



Growing body of research shows that the physical environment impacts physical activity levels

You are 47% more likely to be active at least 30 minutes a day if you live in a neighborhood with sidewalks



Preparing for an Aging Population

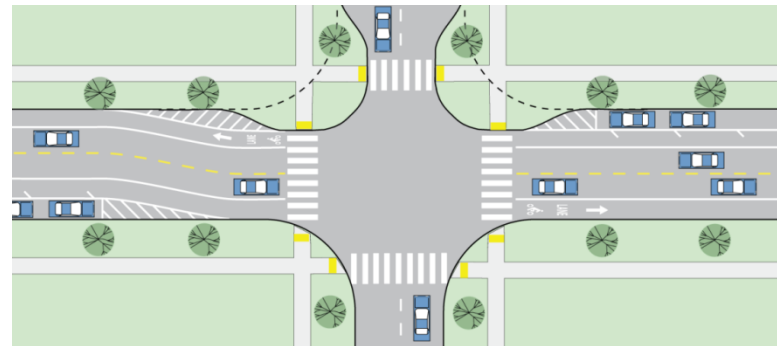
- 2.3 % increase in residents 65 and older 2000 to 2010
 - 14% population 65+
 - 65 + involved in 28% of all crashes
 - In 2040, 65+ to make up 20% of population
- Many improvements will specifically help seniors age in place:
 - Shorter crosswalks
 - Better visibility
 - Traffic calming
 - Better access to transit
 - 4 to 3 lane conversions





Positioning Birmingham for the New Economy

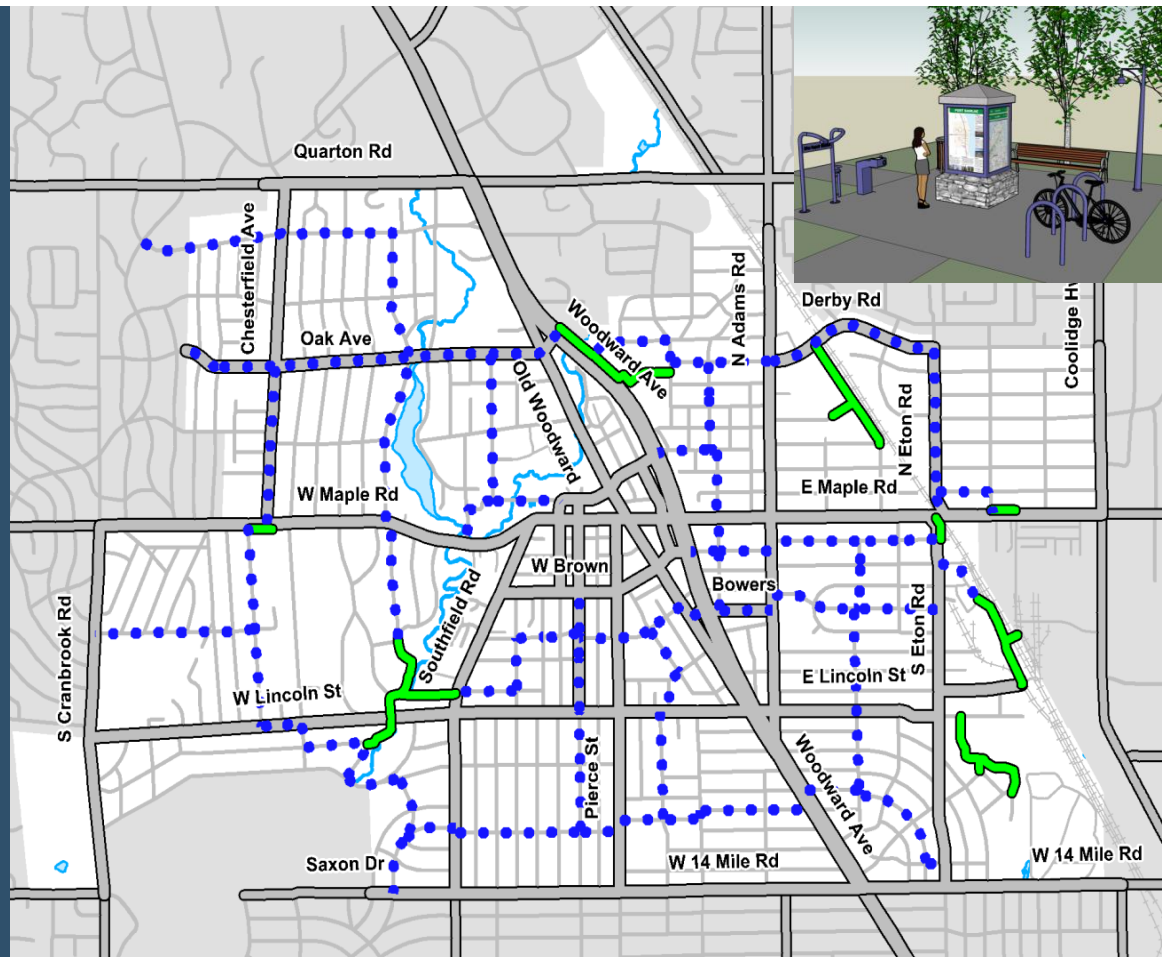
- Massive decline in 25 to 39 year old residents 2000 to 2010
 - Down 1,131 young adults in 10 years
- MSU Land Policy Institute Study; target the following for economic growth:
 - Educated youth
 - High-equity immigrants
 - Educated senior citizens
 - Entrepreneurs
- Pedestrian and bicycle linkages and transit key to attracting this demographic





Project Tailored to Birmingham

- 90% of the cost of proposed improvements are for pedestrian improvements
 - More convenient and safer road crossings
 - Address gaps in the sidewalk system
 - Wayfinding improvements
- Proposed bicycle system includes a “low-stress” network utilizing low-speed roads and connecting pathways
- Coordinated with transit



Proposed Neighborhood Connector Routes

- • • • • Proposed Routes on Local Roadways
- Proposed Off-Road Trail





Economical Implementation Through Long-Range Plan

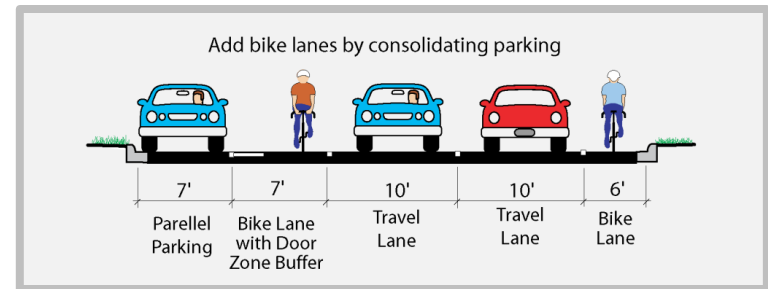
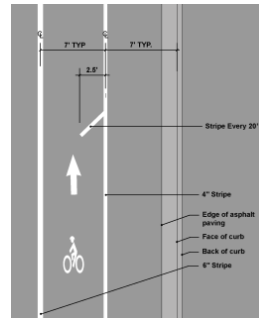
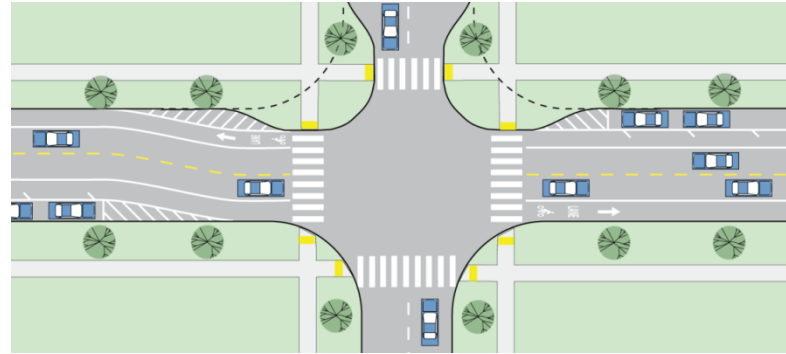
- Many of the improvements will be integrated into larger road construction projects
- Integrating multi-modal elements at the beginning of the process
- A system perspective rather than a piecemeal approach
- Focus on a foundation system





How to Use the Master Plan

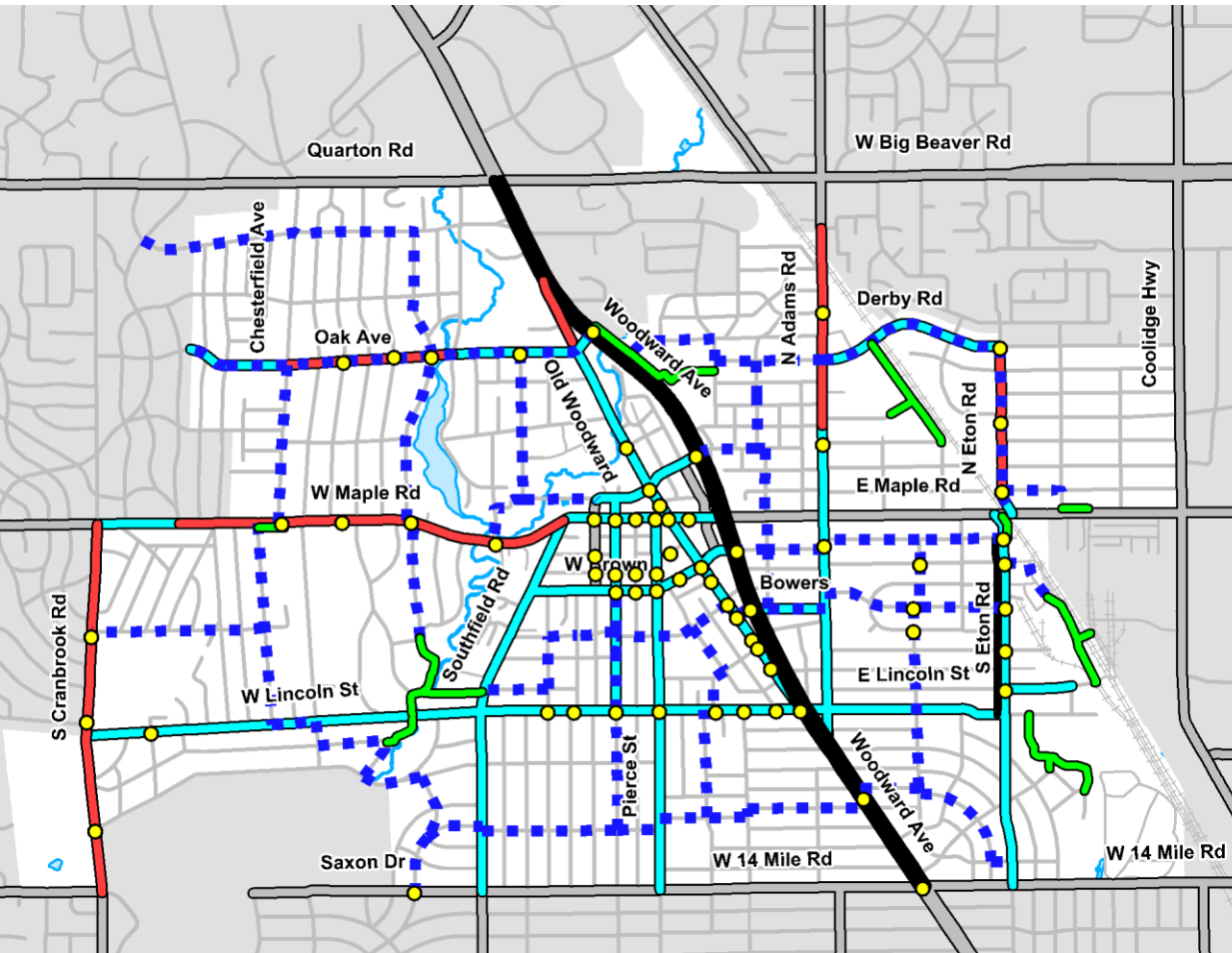
- Very specific recommendations
 - Responses to the demands of planning within an existing constricted environment
 - Pragmatic vision of what is currently feasible
- Use as a guide – this is a city-wide view
- Rapidly changing field
- Each corridor or intersection should be revisited and studied prior construction
- Some should be tested





Multi-modal Network

Responds to the needs
of various users and
trip types



Legend

- Proposed Crossing Improvement
- Proposed Off-road Trail
- - - Proposed Neighborhood Connector Route
- Proposed Bike Lane
- Proposed Buffered Bike Lane
- Proposed Shared-lane Marking

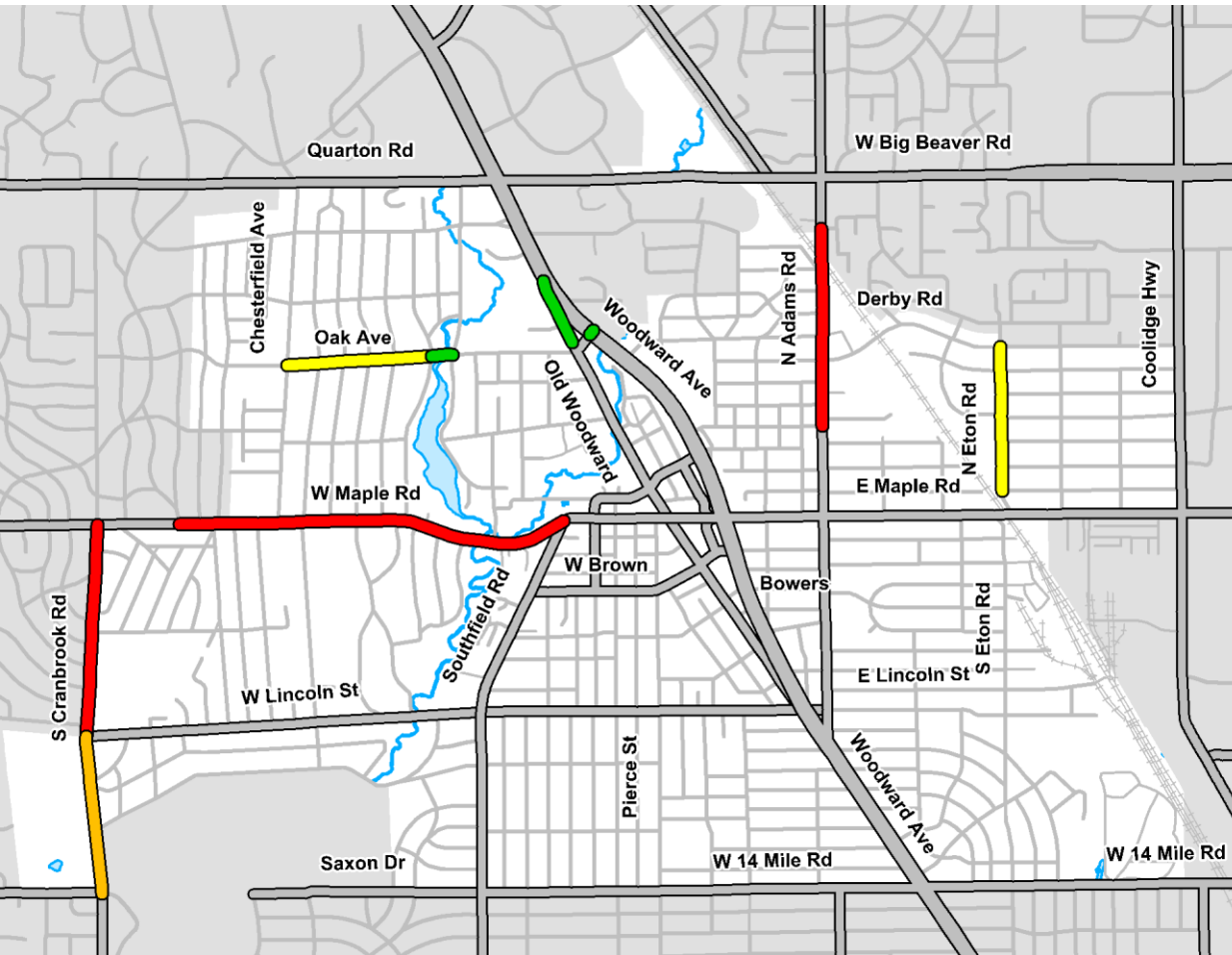
Due to the scale of this map some facilities were not included. Please refer to the following maps for more details.

Web Survey Results:

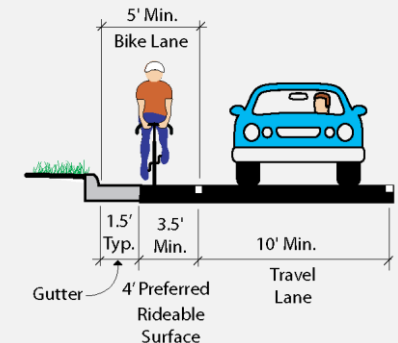
- About 72% of respondents would walk to work and/or do errands if there was a system of sidewalks, pathways, crosswalks, bike lanes, etc.
- Around 84% of respondents feel that a complete network for bicycle facilities such as bike lanes, signed routes and trails are very important or somewhat important to making future bicycling trips actually happen



Bike Lanes – 3.7 miles proposed



Bike Lane Guidelines:



Please note that minimum widths are displayed; 7' Bike Lanes and 11' Travel Lanes are the recommended width whenever possible.

Web Survey Results:

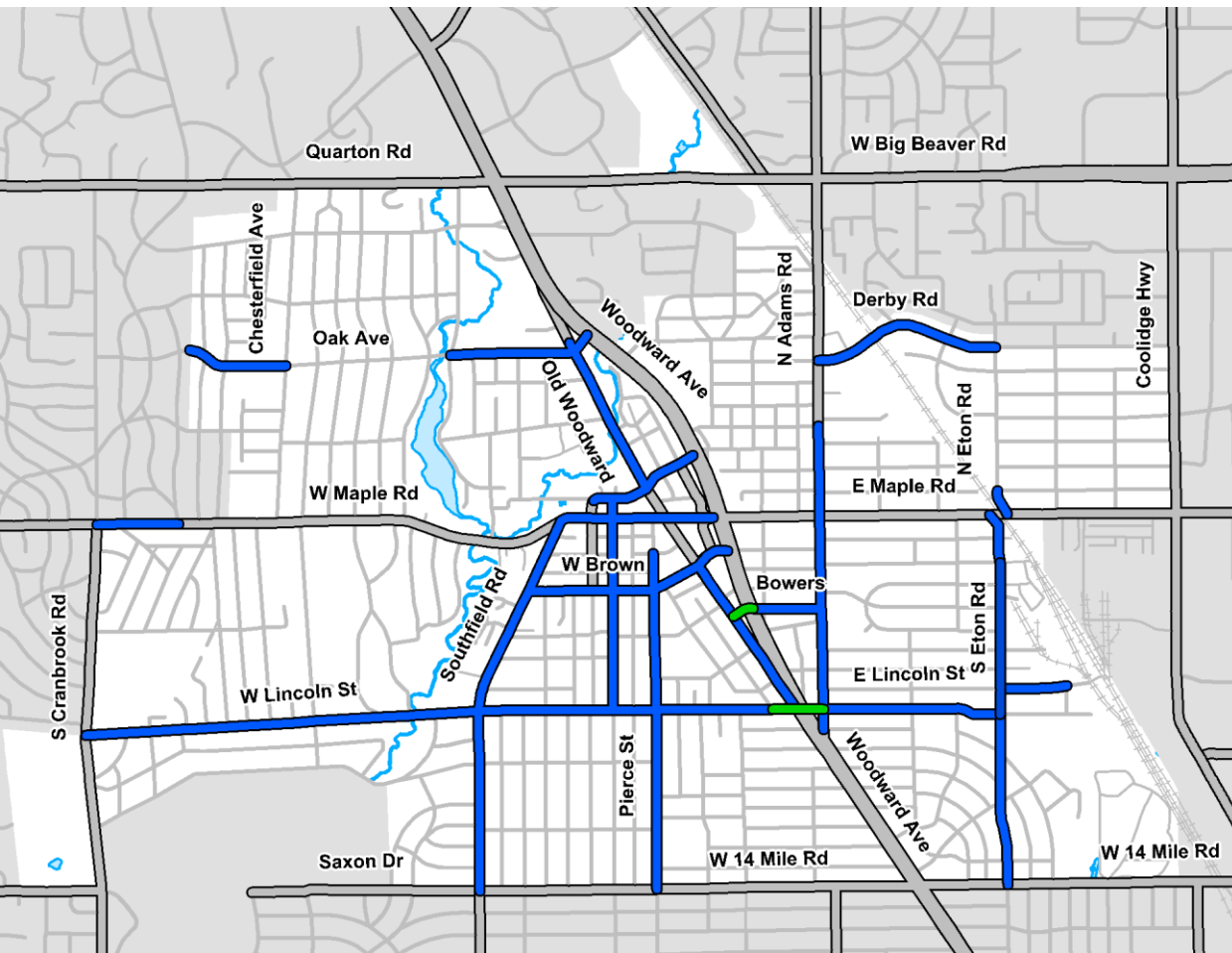
- Around 20% of respondents currently bike to work and/or the store on a weekly basis
- Around 58% would be comfortable riding a bike in a bike lane on a minor road
- Around 30% would be comfortable riding a bike in a bike lane on a major road
- If the appropriate facilities were constructed 69% of respondents would be interested in bicycling to work and/or for errands

Proposed Bike Lanes

- Through Lane Narrowing
- Through 4 to 3 Lane Conversion
- By Consolidating Parking
- By Paving the Shoulder



Shared Lane Markings – 10.7 miles



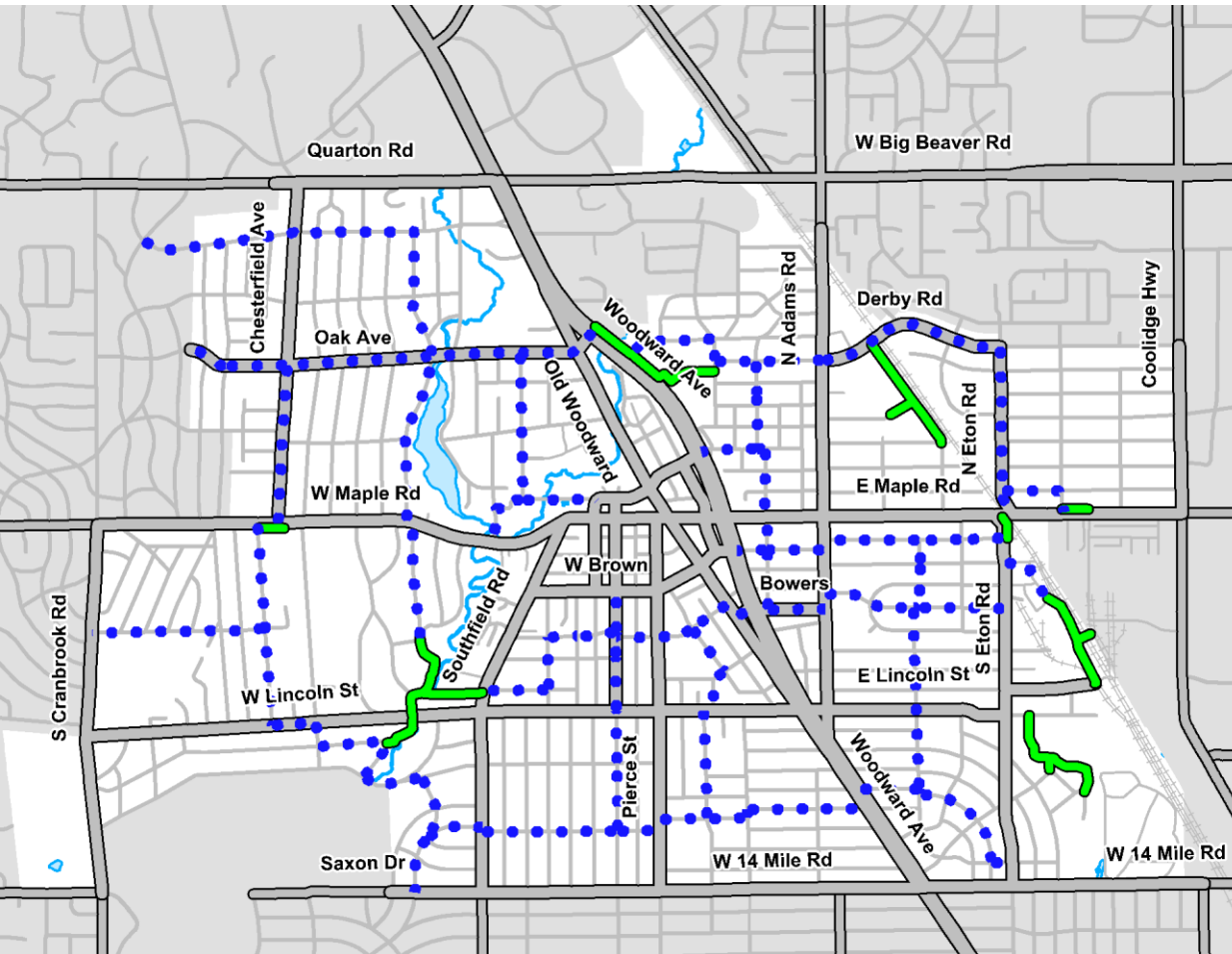
Shared Lane Markings

-  Proposed Shared Lane Markings
-  Proposed Colored Shared Lane Markings





Neighborhood Connectors – 15.4 miles on local roads, 2.2 mi. on pathways



Web Survey Results:

- Around 73% of respondents would be comfortable riding a bike along a Bike Route on a Residential Road

Proposed Neighborhood Connector Routes

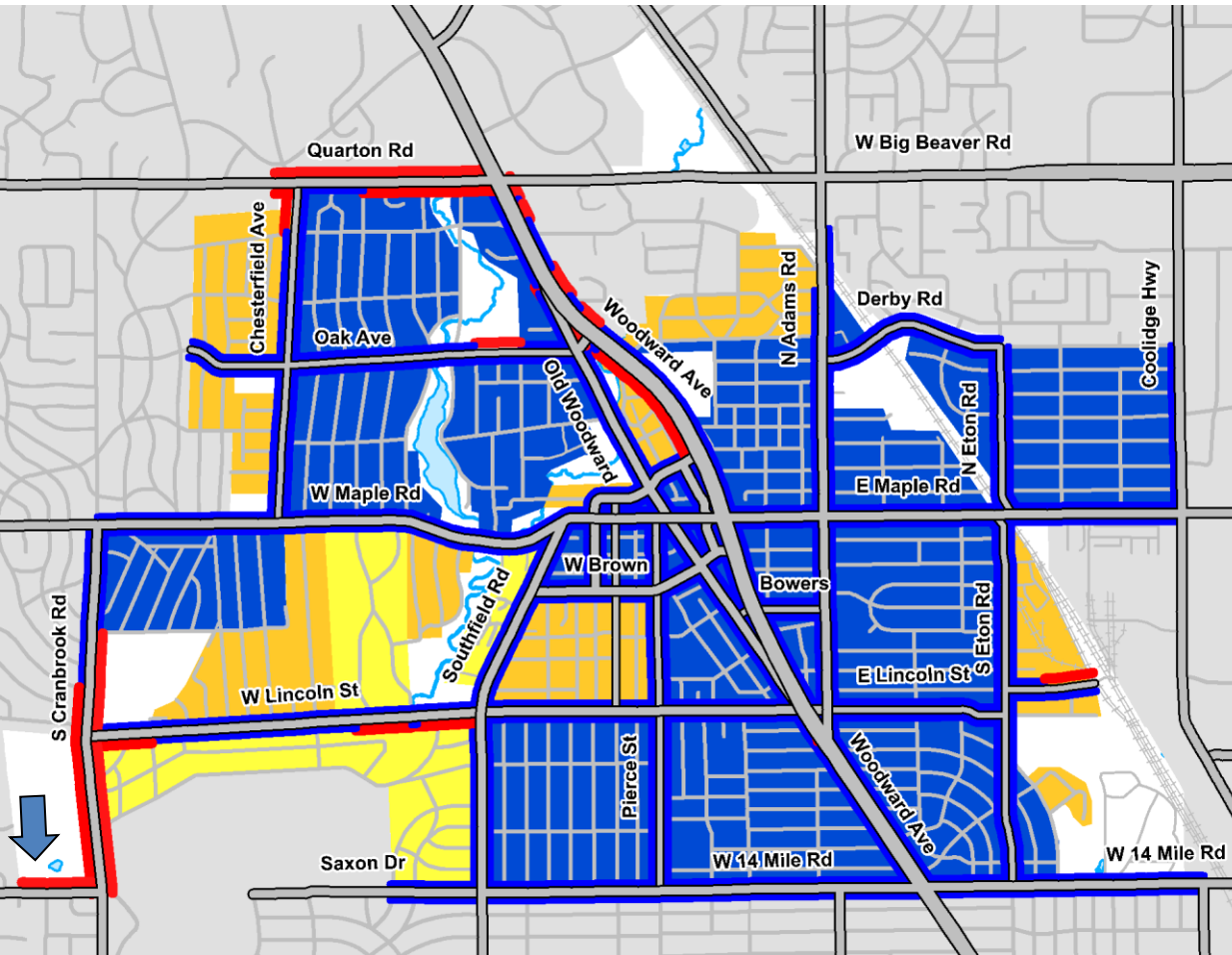
- • • • • Proposed Routes on Local Roadways
- Proposed Off-Road Trail

Web Survey Results:

- Around 82% of respondents feel wayfinding signs for suggested bicycle and pedestrian routes to key destinations are very important or somewhat important to making future walking and bicycling trips actually happen



Sidewalks – 2.5 additional miles along major roads



Proposed Sidewalks:

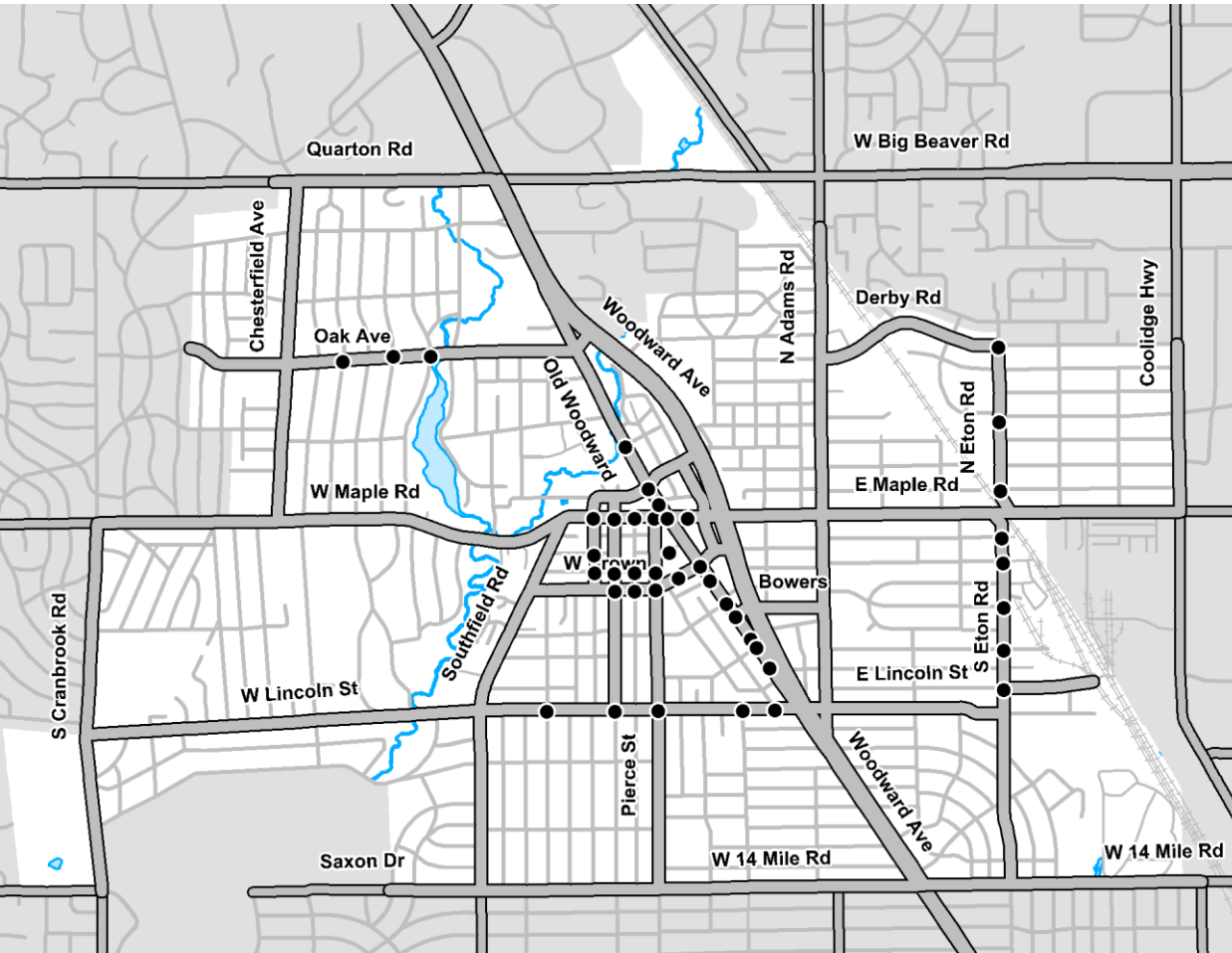
- Existing Sidewalks
- Priority 1: Complete Sidewalks along Major Roads
- Priority 2: Complete Sidewalk Gaps in Neighborhood
- Priority 3: Add Sidewalks to Neighborhood

Web Survey Results:

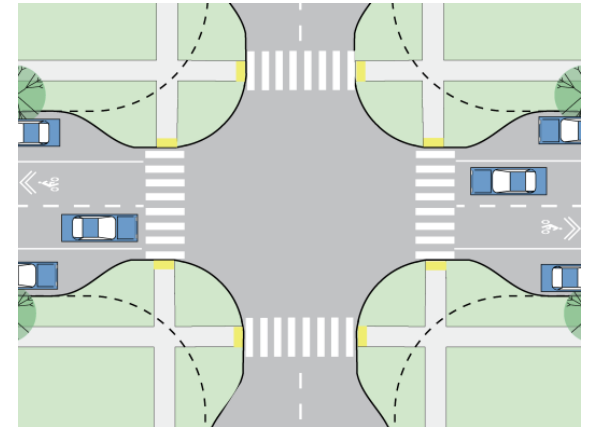
- About 38% of respondents walk to work and/or the store daily or weekly
- About 80% of respondents walk for fun and/or exercise daily or weekly
- Around 79% of respondents feel a complete sidewalk system is very important to non-motorized trips actually happening in the future



Road Crossings – Curb Extensions



42 Proposed



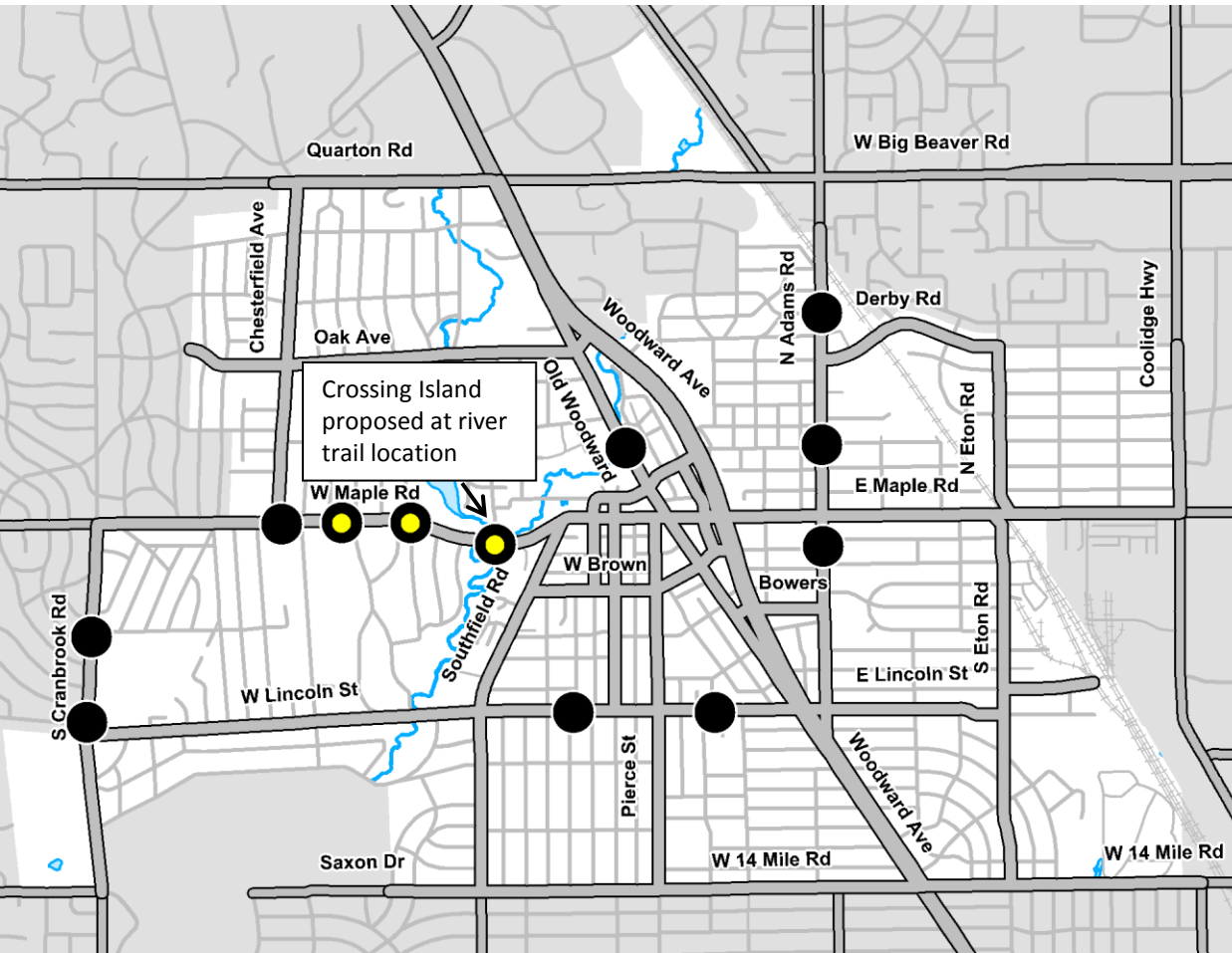
When curb extensions are used on a road with bike lanes, the bike lane continues past the curb extension

Road Crossing Improvements

- Proposed Road Crossing Improvements
- Unsignalized Pedestrian Crossing
- Existing Signalized Intersection



Road Crossings – Crossing Islands



9 Islands, 3 with Rectangular Flashing Beacons Proposed



Web Survey Results:

- Around 61% of respondents feel that mid-block crosswalks are very important or somewhat important to making future walking and bicycling trips actually happen

- Proposed Crossing Island
- Proposed Crossing Island with RRFB



Road Crossings – Upgrades



18 Locations Proposed



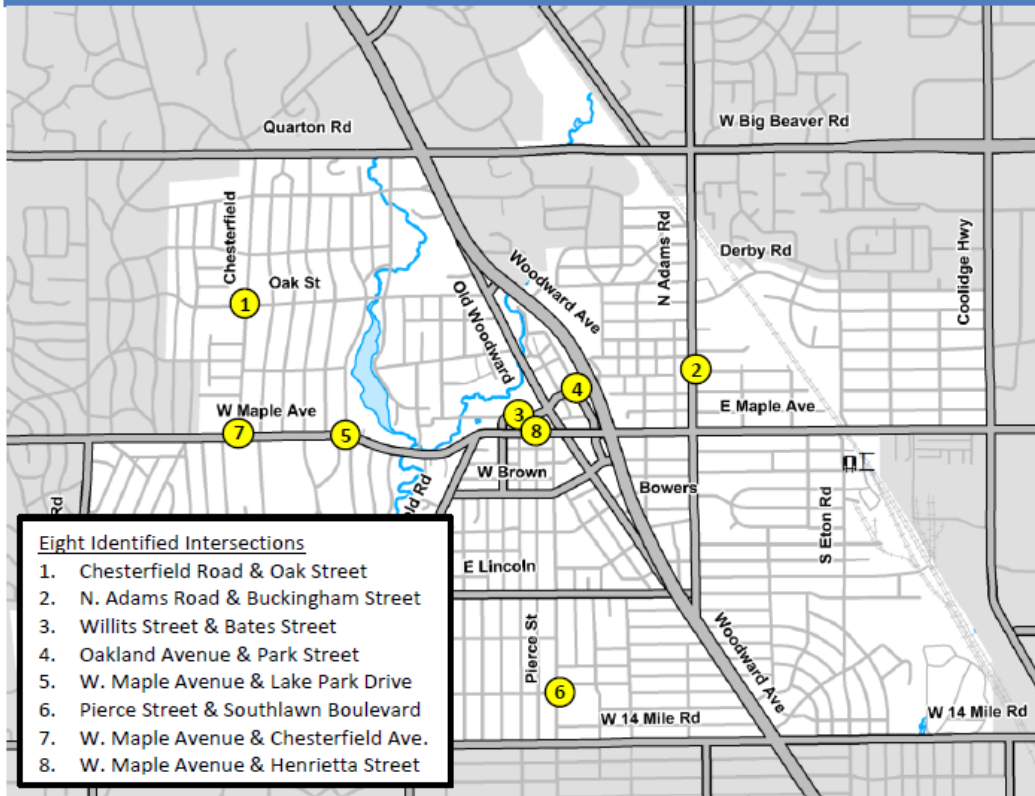
Many of the proposed improvements include upgrades such as ramps, detectable warnings, pedestrian signals and high visibility crosswalk markings

● Proposed Upgrade



Specific Intersection Recommendations

FIGURE 3.13A INTERSECTIONS UNDER EVALUATION



For each of the 8 locations, a number of viable alternatives were identified based on an analysis of existing conditions

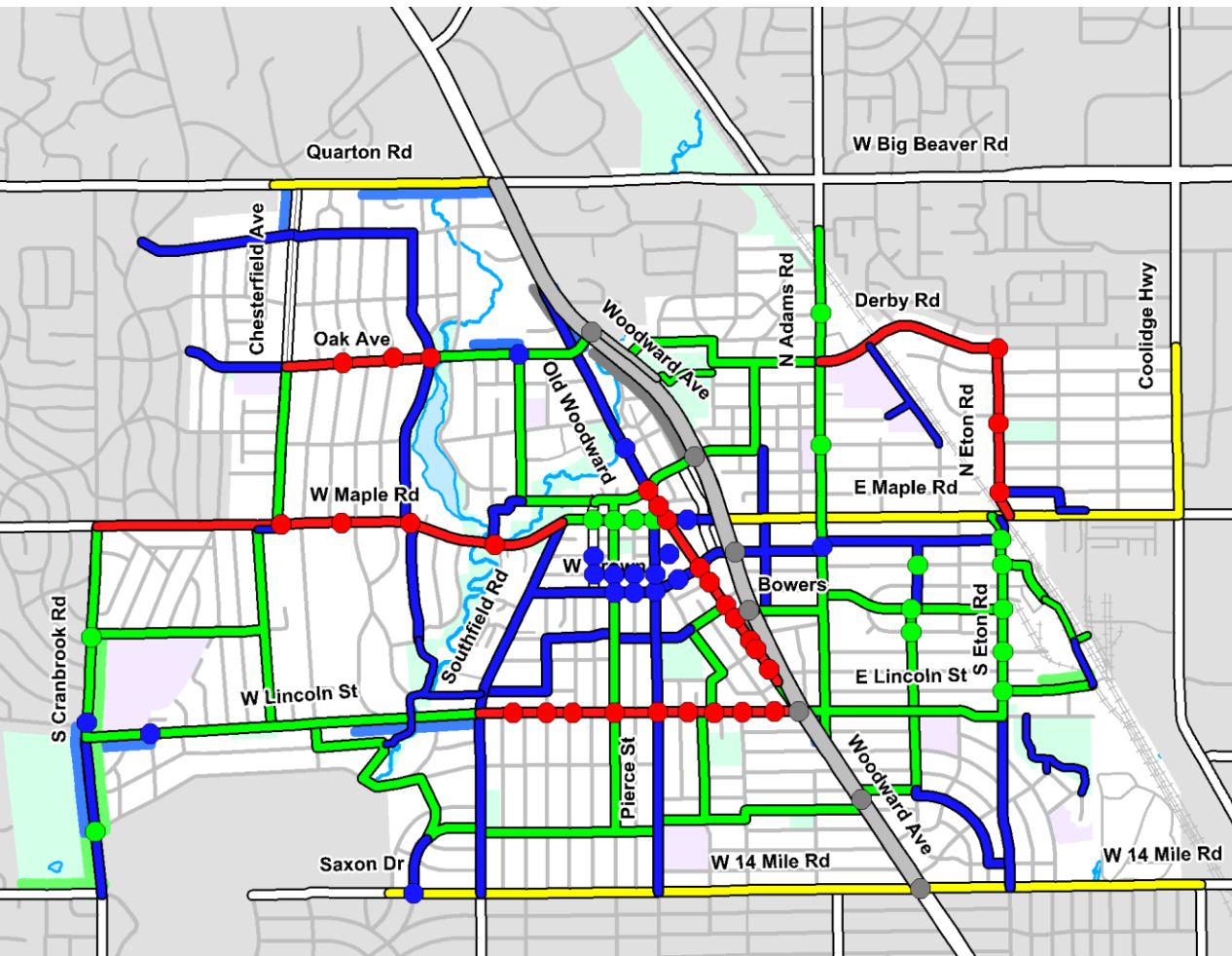
Some of those alternatives are dependent on other proposed changes to the roadway

Prior to implementing any of the alternatives, a detailed engineering study will be undertaken

	Add Curb Extensions	Add Median Island	Add Crosswalk	Implement Road Diet	Convert to Roundabout	Remove Signal	Add Countdown Timers	Update Pedestrian Times	Add Leading Pedestrian Interval	Shorten Signal Cycle Length	Add/Extend Flashing Operation	Add Detection	Other Improvements
1. Oak & Chesterfield													
Roundabout Alternative					X	X							X
Signalized Alternative	X						X				X	X	X
Stop-Controlled Alternative	X					X							X
2. Adams & Buckingham													
Signalized Alternative			X				X			X	X	X	
Stop-Controlled Alternative		X				X							
3. Willits & Bates													
Signalized Alternative	X						X	X	X				X
Stop-Controlled Alternative	X					X							
4. Oakland & Park													
Signalized Alternative	X			X			X	X			X	X	X
5. Maple & Lake Park													
Non-Road-Diet Alternative			X				X	X		X		X	
Signalized Road-Diet Alt.		X	X	X			X	X		X	X	X	
Stop-Controlled Road-Diet Alt.		X		X		X							
6. Pierce & Southlawn													
Signalized Alternative	X							X			X	X	
Stop-Controlled Alternative		X	X			X							
7. Maple & Chesterfield													
Non-Road Diet Alternative							X	X		X		X	
Road-Diet Alternative		X		X			X	X		X	X	X	
8. Maple & Henrietta													
Signalized Alternative	X							X	X	X			
Stop-Controlled Alternative	X					X							X



Network Implementation Plan Summary



Network Phasing Overview

- Phase 1
- Phase 2
- Phase 3
- Phase 4
- Woodward Corridor

Costs for first two phases:

Phase 1	\$1,300,000
Phase 2	\$1,000,000

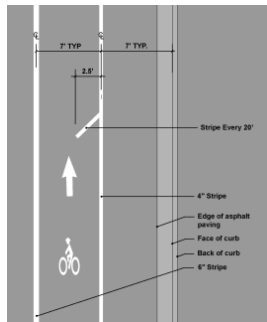
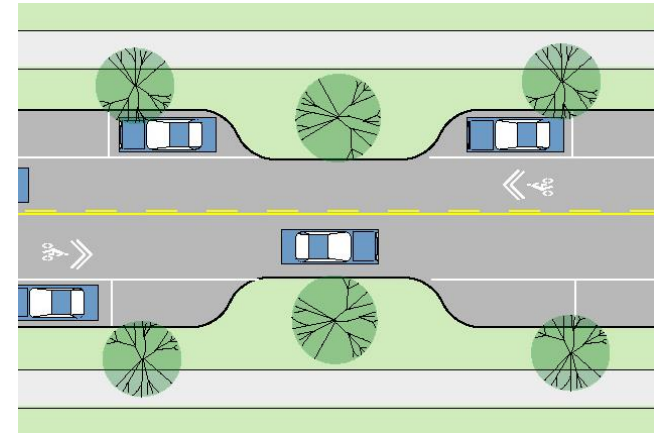
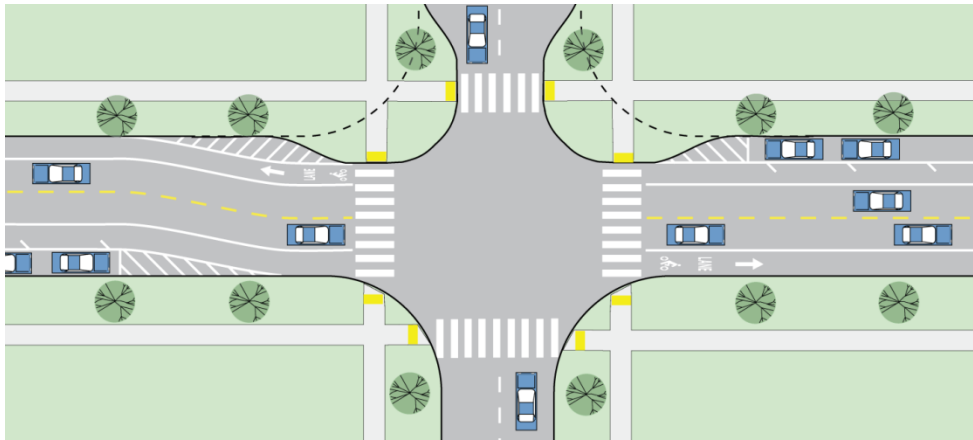
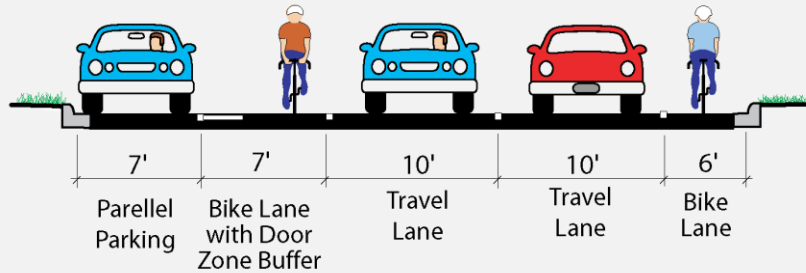
Approximately 15 miles of new facilities are proposed in all four phases:

- 3.8 Miles of Bike Lanes
- 0.5 Miles of Buffered Bike lanes
- 12 Miles of Shared Lane markings
- 0.2 Miles of Colored Shared Lane Markings
- 16 Miles of Neighborhood Connector Routes
- 3.5 Miles Of Pathways & Sidewalks
- 64 Road Crossing Improvements
- 2 Tree Extensions
- 4 Active Transportation Hubs (Not shown on Map)
- 5 Bus Shelters (Not Shown on Map)
- 64 Bicycle Hoops (Not shown on Map)
- 3 enclosed & secured bike rooms (Not shown on Map)



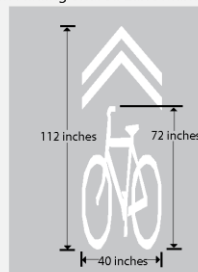
A Number of Details Are Provided in Phasing Plan

Add bike lanes by consolidating parking



Guidelines to Follow When Adding Shared Lane Markings:

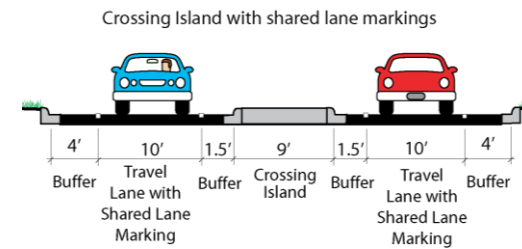
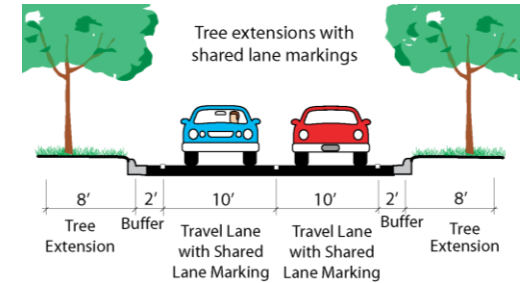
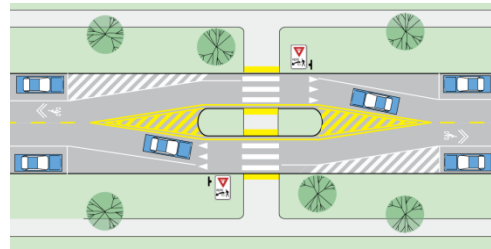
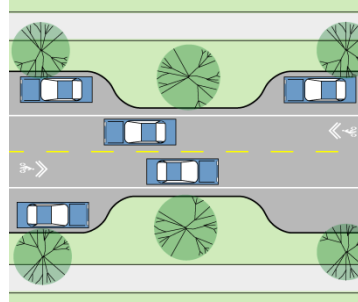
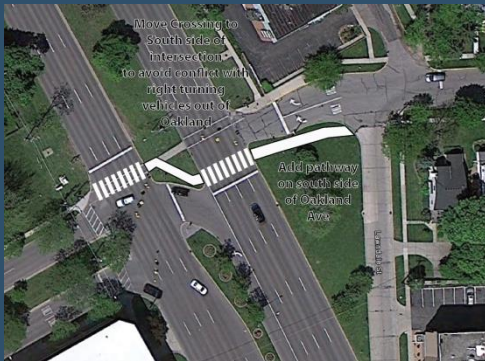
Please note that when used on a street without on-street parking that has an outside travel lane that is less than 14 feet wide, the center of the shared lane markings should be at least 4 feet from the face of the curb or from the edge of the pavement where there is no curb.





Specific Area Plans

- Lincoln Street
- West Maple Road
- Woodward Avenue
- Downtown



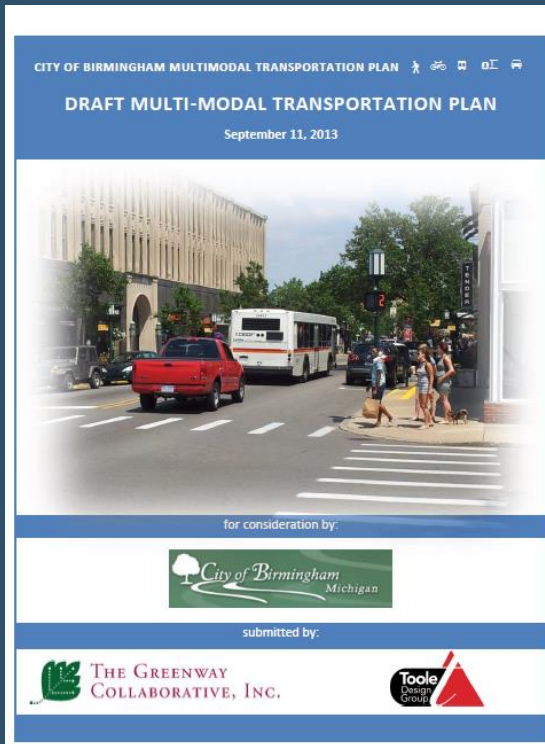


Public and Program Recommendations

- Transportation Project Coordination and Public Input
- Bicycle Parking Ordinance
- Snow Removal
- ADA transition plan
- Walking & Bicycling Maps
- Ped. and Bicycle Counts
- Pedestrian and Bicycle Crash Tracking
- Continue with Community Recognition Programs
- Measurements of Infrastructure Progress



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Questions?

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