

**MULTI-MODAL TRANSPORTATION BOARD**  
**THURSDAY, JUNE 19, 2014**  
**4:30 PM**  
**CITY COMMISSION ROOM**  
**151 MARTIN STREET, BIRMINGHAM**

---

- A. Roll Call
- B. Introductions
- C. Election of Chair and Vice-Chair
- D. Review of the Agenda
  
- E. Establish Date and Time for Regular Meeting Schedule
  
- F. Overview of New Multi-Modal Review Process
  - 1. **Multi-Modal Transportation Board Authority and Duties**
  
- G. Overview of Birmingham Multi-Modal Transportation Plans
  - 1. **2013 Multi-Modal Transportation Plan**
  - 2. **Downtown Bicycle Parking Plan**
  
- H. Review of Phase 1 Implementation Progress
  - 1. **2014 & 2015 Street Projects**
  
- I. Meeting Open to the Public for items not on the Agenda
  
- J. Miscellaneous Business and Communications:
  - a. Communications
  - b. Draft Agenda for the next Regular Multi-Modal Transportation Board Meeting (**date to be determined**)
    - 2015 Street Project Updates
    - Overview of W. Maple 2016 Project
    - Review of Draft RFP for Transportation Engineer/Planner Consultant
  - c. Other Business
  
- K. Adjournment

---

**Notice: Due to Building Security, public entrance during non-business hours is through the Police Department—Pierce St. Entrance only.** Individuals with disabilities requiring assistance to enter the building should request aid via the intercom system at the parking lot entrance gate on Henrietta St.

People with disabilities needing accommodations for effective participation in this meeting should contact the City Clerk's Office at (248) 530-1880 (voice) or (248) 644-5115 (TDD) at least one day in advance to request mobility, visual, hearing or other assistance.

Las personas que requieren alojamiento, tales como servicios de interpretación, la participación efectiva en esta reunión deben ponerse en contacto con la Oficina del Secretario Municipal al [\(248\) 530-1880](tel:2485301880) por lo menos el día antes de la reunión pública. (Title VI of the Civil Rights Act of 1964)



# MEMORANDUM

Planning Department

**DATE:** January 30, 2014

**TO:** Robert J. Bruner Jr., City Manager

**FROM:** Jana L. Ecker, Planning Director  
Paul O'Meara, City Engineer  
Don Studt, Police Chief

**SUBJECT:** Transportation Project Coordination

---

The City of Birmingham seeks to build upon its brand as a walkable community by encouraging transportation improvements that improve the built environment for users of all modes of transportation. The City has a long history of considering all transportation projects with regards to the impact on both vehicular and pedestrian travel. In 2011, the City of Birmingham passed a resolution in support of Complete Streets to demonstrate a commitment to enhancing the built environment for all transportation users, including drivers, pedestrians, bicyclists and transit riders of all ages and abilities. In 2013, the City completed a rigorous 15 month process to complete and accept the Birmingham Multi-Modal Transportation Plan ("MMTP") to guide transportation improvements throughout the entire City.

As was discussed during the MMTP planning process, the City's review process for transportation projects is currently segmented, with different reviews being conducted within various City departments. For example, the Police Department handles regulatory signage, pedestrian crossings, residential parking permits and traffic signals (both vehicular and pedestrian). The Engineering Department handles intersection improvements, street design, the sidewalk program and public parking downtown. The Planning Department represents the City in all regional transportation projects, and handles streetscape improvements as individual sites are developed in both historic and non-historic areas, bicycle parking, transit stop improvements, and the overall master planning of the City and its individual districts.

The MMTP recognized the need for oversight on transportation projects from multiple departments, as well as the need for public input from many different perspectives to improve the quality of the transportation system for all users, ages and abilities, thus improving the quality of life in the City. Chapter Two, Policy and Program Recommendations, section 2.1 Transportation Project Coordination & Public Input (page 22 of the MMTP), recommends a formal coordination procedure between the Engineering, Planning and Police Departments to ensure that all complete streets principles are incorporated and to allow design and planning input from all departments and the public at the early stages of a project (prior to the preparation of engineering drawings). The MMTP specifically recommends the implementation of a standing committee that has representation from people with a diverse range of travel mode experience, people of different age groups and people with mobility issues. The Multi-Modal Transportation Committee would be created to advise the City Commission on the implementation of the MMTP.

The MMTP recommends that such a standing committee be comprised of representation from the following perspectives:

- School District Representative (school board member or district employee)
- Business Representative
- Pedestrian Representative
- Bicycle Representative
- Transit Rider Representative
- Representatives of the elderly/mobility/vision impaired community
- Representative under 35 years of age
- Traffic Representative
- Planning Representative

The purpose of this standing committee would be to review all transportation and transportation-related projects with reference to the MMTP, the 2010 Highway Capacity Manual, the MDOT Complete Streets Policy 2012 and other related traffic, bicycle, pedestrian or transit guidelines in effect, and to provide formal recommendations to the Planning Board and/or City Commission. The Multi-Modal Transportation Committee would advise the City Commission on the implementation of the MMTP, and review project phasing and budgeting, especially on streets that are not already included in the City's Capital Improvements Plan.

At the City Commission meeting on January 27, 2014, the City Commission discussed the creation of a standing Multi-Modal Transportation Committee, and recognized that some of the duties of a new board may overlap with those of existing boards, such as the Traffic and Safety Board (for regulatory sign requests or residential permit parking), the Planning Board (for bicycle improvements, wayfinding or ordinance amendments), and the Architectural Review Committee (for design review of public projects). Accordingly, staff was directed to analyze the existing review process for transportation-related projects and to make recommendations for consolidation of duties through the creation of a standing Multi-Modal Transportation Committee. The City Commission discussed the suggested membership for a new board, and did not see the need for a school district, transit rider or under 35 millennial representatives. There were differing opinions stated as to whether the board should be overstaffed with board members with no formal training in related areas, or whether board members should represent different areas of expertise.

Accordingly, Engineering, Police and Planning Department staff members met to review the existing ordinance language for transportation related matters, and reviewed the duties of the existing Traffic and Safety Board ("TSB"), Planning Board and Architectural Review Committee ("ARC") to determine how best to merge all of the transportation related duties into a comprehensive multi modal board that would consider all aspects of the transportation system in Birmingham. Chapter 110, Traffic and Vehicles, of the City Code currently addresses vehicular traffic issues, establishes regulations, provides for staff and consultant oversight, and provides the scope of authority for the existing TSB. Staff agreed that Chapter 110 should be amended to address the City's multi-modal approach to transportation planning.

Please find attached draft ordinance language for your review that recommends amendments to the name of the chapter itself, as well as Article II and Article VII. Amendments include merging the duties of the TSB into a Multi-Modal Transportation Board ("MMTB") that would

consider motor vehicle regulation, as well as all other aspects of the transportation system to provide a better coordinated and inclusive approach to transportation planning and projects in the City. The proposed ordinance also contains guidelines for board members' background and experience and a new scope of authority for the MMTB that would include the hearing of appeals on administrative decisions dealing with transportation regulation. Requests for regulatory signage, signals, markings and devices, and the regulation of commercial and residential parking will continue to be made through the Police Department. The Police Department would then have the authority to issue administrative decisions under the proposed changes to Article VII, Transportation Related Requests. All such administrative decisions could be appealed to the MMTB at the request of the applicant. The MMTB would thus act as the lead board in the study and review of all transportation related matters (motor vehicle, pedestrian, bicycle and transit issues), and would provide a recommendation to the City Commission. The City Commission would retain the ultimate decision-making power on all such matters.

Examples of transportation-related projects and requests that would be considered by the MMTB would include the following:

- All road reconstruction projects
- All road resurfacing projects
- Sidewalk and pedestrian crossing projects
- All intersection or bridge projects
- Bicycle improvements (lanes, markings, parking etc.)
- Transit facility improvements
- Wayfinding projects
- Any ordinance amendments related to any of the above
- Appeals from administrative decisions on transportation matters.

The duties of the MMTB proposed in the draft ordinance language do not necessarily overlap with the duties of the ARC, as the ARC was designed to act as oversight for any matters directed to it by the City Manager, which would otherwise not be reviewed by any City board or committee. (The majority of the projects that have been brought to the ARC have been for City projects located on City property, but outside of the public right-of-way.) This would continue to be the case, and staff does not anticipate any amendments needed to the City Commission Resolution that established the ARC. That being said, the design perspective that the ARC was intended to bring to the review of City projects has been added to the proposed membership of the MMTB thus ensuring that design issues are reviewed on each transportation project. The ARC will continue to fulfill its role of reviewing all projects not reviewed by other boards, as directed by the City Manager.

Finally, the creation of the MMTB will also provide a forum for transportation consultant interviews and selection recommendations. Currently, the City does not have a traffic consultant under contract as we have in the past. This decision was postponed given the MMTP work that was underway, and the desire to solicit proposals and contract with a multi-modal transportation consultant. It is anticipated that the MMTB would be best suited to issue an RFP for transportation consultants, review proposals, interview candidates, and recommend a preferred consultant to the City Commission. The MMTB would also be best suited to determine

if additional consultants are recommended on complicated or controversial transportation projects, and to provide any such recommendation to the City Commission for consideration.

**SUGGESTED ACTION:**

To adopt an ordinance amending Chapter 110, Traffic and Vehicles, Article II, Sections 26 – 32 to rename the Chapter to Transportation Systems to include all modes of transportation, and to rename and modify the duties of the existing Traffic and Safety Board to the Multi-Modal Transportation Board, and to expand the scope of authority for the Multi-Modal Transportation Board to include a mandatory review of all transportation related projects in the City, and to allow the hearing of appeals from administrative decisions on transportation related matters;

AND

To adopt an ordinance amending Chapter 110, Traffic and Vehicles, Article VII, Sections 191 – 196 to allow administrative review of transportation related regulatory requests.

## CHAPTER 110, ~~TRAFFIC AND VEHICLES~~ TRANSPORTATION SYSTEMS

### ARTICLE II. ~~TRAFFIC AND SAFETY BOARD~~ MULTI-MODAL TRANSPORTATION BOARD

---

#### Sec. 110-26. Composition.

The ~~traffic and safety board~~ **Multi-Modal Transportation Board** shall consist of ~~two~~ nonvoting ex officio members and seven members appointed by the city commission. The ~~two~~ nonvoting ex officio members shall be **appointed by** the city manager. **They may include the city engineer, city planner, and the police chief, or their designated representatives, or other representatives as the city manager deems appropriate. Insofar as possible, the city commission shall appoint members as follows:**

- (i) **One pedestrian advocate member;**
- (ii) **One member with a mobility or vision impairment;**
- (iii) **One member with traffic-focused education and/or experience;**
- (iv) **One bicycle advocate member;**
- (v) **One member with urban planning, architecture or design education and/or experience; and**
- (vi) **Two members at large from different geographical areas of the city.**

~~One of the seven members appointed by the city commission shall be recommended by the board of education. Board members shall be electors or property owners in the city.~~

#### Sec. 110-27. Terms of members.

~~All current members of the traffic and safety board~~ **Initial members of the Multi-Modal Transportation Board** shall serve for **the following terms: two members shall be appointed for one year terms, two members shall be appointed for two year terms, and three members shall be appointed for three year terms** ~~the remainder of their current terms.~~ Thereafter, all appointments, except to fill vacancies, shall be for a term of three years. All appointments for the purpose of filling vacancies occurring otherwise than by expiration of term of office shall be for the unexpired term.

#### Sec. 110-28. Compensation.

All members of the ~~traffic and safety board~~ **Multi-Modal Transportation Board** shall serve without compensation.

#### Sec. 110-29. Organization.

The ~~traffic and safety board~~ **Multi-Modal Transportation Board** shall, from its appointed members, elect a chairman who shall be the presiding officer of the board, and a vice-chairman who shall serve in the absence of the chairman. A secretary, who shall keep and maintain the proceedings of the board, shall be appointed by the board. The secretary need not be a member of the board. The terms of office for such officers shall be one year and until their successors have been elected. The ex officio members of the board may not act as the chairman or vice-chairman but may serve as secretary.

**Sec. 110-30. Meetings and quorum.**

The ~~traffic and safety board~~ **Multi-Modal Transportation Board** shall hold ~~at least one regular public meetings each month~~ at such time and place as may be established by the board. Special meetings may be called by the secretary at the written request of the chairman or any three members of the board on at least two days' notice. A quorum for the transaction of business at the regular and special meetings shall be four appointed members and at least one ex officio member or **their** ~~his~~ designated representative.

**Sec. 110-31. Scope of authority.**

The ~~traffic and safety board~~ **Multi-Modal Transportation Board** is a non-administrative board serving solely in an advisory capacity. In that capacity the board may make recommendations to the city commission but may not assume any legislative or administrative authority of the city commission or any department or board established by the city commission except as specifically provided in this chapter. **The Multi-Modal Transportation Board is not authorized to expend city funds.**

**Sec. 110-32. Purpose ~~Goal~~ and duties.**

The ~~purpose goal~~ of the ~~traffic and safety board~~ **Multi-Modal Transportation Board** shall be to **assist in maintaining** the safe and efficient movement of **motorized and non-motorized** vehicles and pedestrians on the streets and walkways of the city **and to advise the city commission on the implementation of the Multi-Modal Transportation Plan, including reviewing project phasing and budgeting.** In furtherance of its ~~purpose goal~~, the board shall endeavor to provide the following:

- ~~(8)~~**(1) Advice on the maintenance implementation of the city's Multi-Modal Transportation Plan to the city commission** ~~of consistency with the city's master traffic study.~~
- ~~(9)~~**(2) Review of the Multi-Modal Transportation Plan** ~~master traffic study~~ to assure that it remains current with citywide **multi-modal transportation** ~~traffic movements and regional transportation traffic plans and initiatives.~~
- (3) An objective and technical multi-modal evaluation of plans for all road reconstruction and road resurfacing projects, sidewalk and**

**pedestrian crossing projects, intersection or bridge projects, bicycle and transit facility improvement projects.**

~~(1)~~**(4)** An objective and technical evaluation of ~~traffic~~ **transportation issues** ~~problems~~ brought to the attention of or identified by the board.

~~(2)~~**(5)** An objective and technical evaluation of the ~~traffic~~ **transportation** plan submitted for proposed development or redevelopment, as referred to the board by the planning board.

~~(3)~~**(6)** An objective and technical **multi-modal** evaluation of site plans submitted for proposed development or redevelopment, as referred to the board by the planning board.

**(7) An objective and technical multi-modal evaluation of any ordinance amendments related to transportation issues, as referred to the board by the planning board or city commission.**

~~(4)~~**(8)** The application of accepted ~~traffic~~ **and** transportation engineering practices, **multi-modal transportation planning and complete streets practices and national standards, including those published by the American Association of State Highway and Transportation Officials,** and standards in solving and preventing ~~traffic~~ **transportation** problems.

~~(5) An annual evaluation of high accident locations within the city.~~

~~(6)~~**(9)** Objective and technical recommendations regarding **transportation** ~~traffic~~ **engineering** safety issues to the city commission.

~~(7)~~**(10)** A forum for the voluntary coordination of groups interested in ~~traffic and safety problems~~ **transportation issues.**

**(11) A forum to review and decide appeals of administrative decisions made by the Police Department on transportation-related regulatory requests under Article VII of this chapter.**

Secs. 110-33—110-55. Reserved.

## **ARTICLE VII –TRANSPORTATION REGULATORY REQUESTS**

### **Section 110 – 191 Purpose**

**The purpose of this division is to maintain the effective functioning of the city's transportation system for all users, of all ages and abilities.**

### **Section 110 – 192 Review**

**Applications for all transportation related regulatory requests, including but not limited to, regulatory signs, signals, markings and devices, and the regulation of commercial and residential parking, shall be submitted to the Police Department for administrative review.**

### **Section 110-193 Application**

**Each transportation related regulatory request submitted to the Police Department under this division shall be on such forms and contain such information as the Police Department shall determine necessary, including but not limited to an explanation of the request, the reason(s) for the request, and a basic site plan of the conditions of the area in question.**

### **Section 110 – 194 Application Fee**

**An application fee as established by the city commission shall be payable upon submitting an application for a transportation related request.**

### **Section 110 – 195 Decision on Request**

**After reviewing the transportation related regulatory request, the Police Department may approve the request, approve on a trial basis for a limited period of time, or deny the request.**

### **Section 110 - 196 Appeal**

**Any applicant for administrative review under this division aggrieved by a decision of the Police Department shall have the right to appeal the decision to the Multi-Modal Transportation Board.**

110-197-225 Reserved.

# MULTI-MODAL TRANSPORTATION PLAN

November 25, 2013



for consideration by:



submitted by:



**THE GREENWAY  
COLLABORATIVE, INC.**



# CITY OF BIRMINGHAM MULTI-MODAL TRANSPORTATION PLAN

NOVEMBER 25, 2013



## ACKNOWLEDGEMENTS

### STEERING COMMITTEE

Andy Jack Lawson, Millennial Generation Representative  
Bill Guspie, Senior Citizen Representative  
Carrie Laird, Parks & Recreation Manager  
Debbie Piesz, Birmingham Schools  
Doug Fehan, Principal Shopping District Board Member  
Fred Acomb, Pedestrian Representative  
Jeff Surnow, Bicycle Representative  
Johanna Slanga, Traffic & Safety Board  
Lex Kuhne, Advisory Parking Committee Member  
Ron Rea, Physically Handicapped Pedestrian Representative  
Scott Clein, Planning Board Member  
Shelli Weisberg, Transit Rider Representative

### CITY OF BIRMINGHAM STAFF

Jana Ecker, Planning Director  
Matt Baka, Senior Planner  
Paul O'Meara, City Engineer  
Brendan Cousino, Assistant City Engineer  
Mark Clemence, Deputy Police Chief

### CONSULTANTS

The Greenway Collaborative, Inc.  
Toole Design Group

# CONTENTS

---

<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
--------------------------------	----------

---

<b>INTRODUCTION .....</b>	<b>5</b>
1.1 Benefits of a Multi-Modal Transportation Plan .....	7
1.2 Planning Process.....	8
1.3 Public Engagement.....	9
1.4 Vision, Goals and Objectives .....	11
1.5 Inventory and Analysis .....	13
1.6 Project Approach.....	15
1.7 Glossary of Terms.....	17

---

<b>POLICY AND PROGRAM RECOMMENDATIONS .....</b>	<b>21</b>
2.1 Transportation Project Coordination & Public Input .....	22
2.2 Bicycle Parking.....	24
2.3 Snow Removal.....	26
2.4 ADA Transition Plan.....	28
2.5 Walking & Biking Maps .....	32
2.6 Bicycle and Pedestrian Counts .....	34
2.7 Bicycle and Pedestrian Crash Tracking.....	36
2.8 Community Recognition.....	38
2.9 Measurements of Infrastructure Progress.....	40

---

<b>PHYSICAL ENVIRONMENT RECOMMENDATIONS .....</b>	<b>41</b>
3.1 Multi-Modal Network .....	44
3.2 Sidewalks .....	48
3.3 Road Crossing improvements .....	50
3.4 Bike Lanes.....	54
3.5 Buffered Bike Lanes.....	56
3.6 Shared Lane Markings.....	58
3.7 Neighborhood Connector Routes .....	60
3.8 Pedestrian & Bicycle Wayfinding .....	62
3.9 Neighborhood Greenway.....	64
3.10 Tree Extensions .....	65

3.11	Bicycle Parking.....	66
3.12	Transit Facility Amenities .....	68
3.13	Intersection Recommendations.....	70

---

<b>NETWORK IMPLEMENTATION PLAN .....</b>	<b>77</b>
4.1 Network Phasing Overview .....	78
4.2 Phase 1 .....	80
4.3 Phase 2 .....	92
4.4 Phase 3 .....	104
4.5 Phase 4 .....	112
4.6 Phase 1 and 2 Cost Estimate Overview.....	114

---

<b>SPECIFIC AREA CONCEPT PLANS .....</b>	<b>117</b>
5.1 Lincoln Street.....	118
5.2 West Maple Road.....	120
5.3 Woodward Avenue .....	122
5.4 Downtown.....	130

---

**APPENDIX (SEPARATE DOCUMENT)**

Preliminary Web Survey Results.....	A1
Public Visioning Workshop Results.....	B1
Preliminary Plan Open House Results.....	C1
Network Inventory & Analysis .....	D1
Recommendations Report for Eight Intersections .....	E1
Americans with Disability Act (ADA) Transition Plan.....	F1
Phase 1 and 2 Cost Estimate.....	G1
Recommended Community Partner Programs.....	H1

\*The Proposed Network Map (this is a large map) may be downloaded from the Project Webpage at <http://greenwaycollab.com/Projects/Birmingham/Birmingham.html>

**SUPPLEMENTAL DOCUMENTS:**

The following documents are not specific to Birmingham but are provided as a reference guide for continued development of bicycle and pedestrian improvements:

- Public Policy Best Practices
- Physical Environment Best Practices
- Community Program Best Practices
- Quality of Life Best Practices

## CITY OF BIRMINGHAM MULTIMODAL TRANSPORTATION PLAN EXECUTIVE SUMMARY

# WHY PLAN FOR MULTI-MODAL TRANSPORTATION?

The City of Birmingham's Multi-modal Transportation Plan and Appendix fills over 470 pages. This begs the question, what is the problem that warrants such attention? And as a follow-up question, do the benefits of the proposals outweigh the costs? While a full blown cost benefit analysis is outside of the scope of this project the following provides a brief overview of the rationale behind the plan.

## THE COST OF DOING NOTHING

From 2004 through 2011 automobiles struck 67 pedestrians and 44 bicycles in the City of Birmingham. That works out to be over one crash each month. Each crash results in a tremendous physical and emotional toll on the person hit and their families. There is also an emotional toll on the drivers of vehicles that hit the pedestrians and bicyclists.

Beyond the emotional and physical costs of each crash there is an economic cost. The National Safety Council (NSC) makes estimates of the average economic costs of fatal and nonfatal injuries. The NSC considers the calculable costs of crashes are wage and productivity losses, medical expenses, administrative expenses, vehicle damage and employer's uninsured costs. When doing a cost benefit analysis for a transportation project, the NSA states that one must look beyond those costs and take into account a measure of the value of lost quality of life. The NSC uses figures based on empirical studies to determine the more inclusive average comprehensive cost. Using [NSC's average comprehensive costs figures from 2011](#), the comprehensive cost of those 111 pedestrian and bicycle crashes over that 8 year period is nearly 17 million dollars. This works out to be 2.1 million dollars a year or \$104 per resident each year. See the Appendix pages D21 and D33 for a detailed breakdown of the costs.

The total cost of Phase 1 and 2, which will together yield a substantial system, is about 2.3 million dollars. This is not to say that when completed, the plan will eliminate all crashes, but the recommendations are based on proven safety countermeasures. If the completion of Phase 1 and Phase 2 were to take a total of 8 years and reduce the crash rates by as little as 14%, the project would be viewed as a success from a cost benefit perspective.

## THE COST OF PHYSICAL INACTIVITY

According to 2010 [data from the Center for Disease Control and Prevention](#) over 1/3 of Metro Detroit's residents are overweight, another 1/3 are classified as obese and 28% reported doing no physical activity or exercise in the past 30 days. One of the largest costs associated with physical inactivity is the loss of productive hours for workers. In 2003, a study was conducted titled [The Economic Cost of Physical Inactivity in Michigan](#). It looked at the costs associated with the health effects of physical inactivity including its contribution to cardiovascular disease, obesity, diabetes, osteoporosis, mental health disorders and some cancers. The study found that on average physical inactivity cost each Michigan adult resident \$1,175 in 2002 dollars.

There has been a growing body of research that shows that the physical environment of a community has a direct impact on the physical activity levels of its residents. [Active Living Research](#) has compiled research that shows that public transit users take 30% more steps per day than people who rely on a car and that people who live in neighborhoods with sidewalks on most streets are 47% more likely to be active at least 30 minutes a day.

## PREPARING FOR AN AGING POPULATION

[SEMCOG's Community Profile of Birmingham](#) shows that there was a 2.3% increase in residents 65 and older from 2000 to 2010. Seniors 65 and older now comprise just under 14% of the City's population. Yet, in the City, drivers 65 and older are involved in 28% of all crashes. Between 2010 and 2040 the population 65 and older is expected to increase to over 59% and seniors will make up 20% of the total population of the City. As the population gets older strategies need to be employed to address both the particular needs of senior drivers and enhance the mobility of those who no longer have the option to drive.

Improvements to the pedestrian environment such as crosswalks that are shorter in length, more conveniently located and improve visibility between motorists and pedestrians provide viable options for independent mobility for seniors. Better access to transit accompanied by more amenities and information at transit stops help make a bus trip a more attractive option for seniors who are more accustomed to driving themselves. Converting roadways from 4 lanes to 3 lanes make left turns easier for seniors by improving sight lines between drivers and conflicting oncoming traffic.

## POSITIONING BIRMINGHAM FOR THE NEW ECONOMY

[SEMCOG's Community Profile of Birmingham](#) also shows a massive decline in 25 to 39 year old residents between 2000 and 2010; a loss of a total of 1,131 young adults in the span of only 10 years. This does not bode well for the long-term prosperity of the City of Birmingham.

[Michigan State University's Land Policy Institute's](#) Growth Study found that communities should be targeting educated youth along with high-equity immigrants, educated senior citizens and entrepreneurs as a means to attract economic growth. The Growth Study found that placemaking, including vibrant downtowns, green infrastructure, pedestrian and bicycle linkages and transit are key to attracting this demographic. The study found that these knowledge workers are especially mobile and make location choices based on the quality of a place more than job availability.

## A PROJECT TAILORED TO BIRMINGHAM

This plan builds upon the City of Birmingham's brand as "A Walkable Community." 90% of the cost of proposed improvements in Phase 1 and Phase 2 are for pedestrian improvements. These include providing more convenient and safer road crossings, addressing gaps in the sidewalk system and wayfinding improvements. The result will be a dramatic improvement in pedestrian mobility for all ages in the initial stages of the project.

The proposed bicycle system offers ways for bicyclists of all ages and abilities to access key destinations. Cyclists will have the option to use a low-stress network that utilizes low-speed local roads and connecting pathways guided by wayfinding signage. Or they may choose more direct routes using accommodations such as bike lanes and shared lane markings on busier roadways. Their choice will likely vary based on their age, skills, current conditions and the nature of their trip. The complementary bicycle networks, while extensive, are accomplished in an economical manner by making the most of existing infrastructure and by applying low-cost road modifications.

The improvements to the pedestrian and bicycle networks are coordinated with the transit system making it easier to access transit stops and get to the opposite side of the road at a stop. For transit routes with the highest volume of users, bus shelters are proposed and basic improvements are proposed to transit stops throughout the system.

## ECONOMICAL IMPLEMENTATION THROUGH LONG-RANGE PLANNING

While the cost of the proposed improvements has been identified as part of this project, the reality is many of the proposed improvements will be integrated into larger road construction projects. This is by far the most economical approach to completing the system and many of the costs will be incidental to the larger projects. By having a comprehensive plan, multi-modal elements can be integrated into typical street projects at a project's inception. The plan outlines an approach to make sure that all roadway users perspectives are addressed at the earliest stages of a project which may precede construction by a few years.

Also, by taking a comprehensive look at the City, recommendations for particular corridors are made based on a system perspective rather than in a piecemeal approach. This allows for project phasing that focuses on establishing foundation system that crisscrosses the City that will be completed in the early stages.

## HOW TO USE THE MASTER PLAN

The Multi-modal Transportation Plan is very specific in its recommendations by design, perhaps more so than most other master plans. The plan's specificity is a response to the demands of transportation planning within an existing, constricted environment. It presents a realistic picture of what is currently feasible within the confines of the existing roadway and public rights-of-way.

But it should be recognized that it is still a master plan level document and that every nuance of each street and all of the intersections cannot be effectively addressed at a city-wide scale. It should also be recognized that multi-modal transportation planning and design is a rapidly changing field. New design ideas and research is becoming available almost on a monthly basis. Across the country, there has been a marked increase in demand for high quality (and high cost) multi-modal transportation options accompanied by greater willingness to pay for the improvements.

Thus, this Master Plan should be used as a guide. It provides a pragmatic vision of what can be accomplished in the City of Birmingham in the near future. As each corridor is scheduled for improvements, the recommendations should be revisited to see that they work with the current context, still meet the expectations of the community and reflect current best practices. What will hold over time is the concept of complementary networks. As each corridor is evaluated, it should be done so through the lens of the network of which it is a part and the overall intent of the master plan.

# CITY OF BIRMINGHAM MULTIMODAL TRANSPORTATION PLAN

## INTRODUCTION

### CHAPTER 1

## INTRODUCTION

The City of Birmingham's Multi-Modal Transportation Plan presents a long-range plan to improve and expand opportunities for pedestrians, bicycles and transit users. It is a response to the growing demand for alternative forms of travel and the need to improve the safety of those who choose to walk, bicycle or take transit. The plan looks at how the City of Birmingham may transform its streets into outstanding attractive public spaces that are even friendlier to pedestrians, integrate facilities bicyclists and transit users while continuing to serve the needs of motorized traffic. Once implemented, the proposed improvements will help the City of Birmingham continue to be an attractive place to live, work, and play and be enhance its desirability among educated youth, entrepreneurs and senior citizens.

Many of the improvements are designed to accomplish multiple goals. For example, improvements for pedestrians on Lincoln Street are also are designed to lower traffic speeds to a level appropriate to the residential nature of the roadway and enhance the appearance of the corridor. The proposed 4 to 3 lane conversions are proven to provide dramatic increases in motorized traffic safety and reduce excessive speeding all while providing space for bike lanes and crossing islands for pedestrians. Wayfinding signs are designed for both bicyclists and pedestrians and promote the idea of walking and bicycling to specific destinations in town. Proposed improvements to Woodward Avenue are designed not only to provide safe and convenient facilities for pedestrians, bicyclists and transit users, but also to help create a sense of place that will enhance the property values along the corridor.

Together, the proposed improvements to the pedestrian, bicycle and transit environments will provide residents and visitors additional viable transportation choices. Communities around Michigan, the US and the world that have invested in multi-modal facilities have experienced a significant increase in the number of people who walk, bicycle and take transit. Birmingham's vibrant downtown surrounded by close-in residential areas on a tight grid of streets provides an enviable foundation to build upon. Most residents are within convenient walking and bicycling distant to the majority of destinations in the City. This plan provides the guidance on how to capitalize on that good fortune and make Birmingham not simply a walkable community, but an outstanding walkable, bikeable and transit friendly community.

---

**BACKGROUND**

The City of Birmingham has a population of 20,103 residents (according to the 2010 US Census) and is approximately 4.8 square miles. The city is centrally located within the region with a vibrant downtown, wide range of housing opportunities, strong commercial corridors and has distinguished itself as a “walkable community.”

Birmingham offers tremendous potential for non-motorized and multi-modal travel. In October 2011, the City passed a Complete Streets resolution and in January 2012 the Birmingham City Commission identified the need to develop a comprehensive city-wide document that clearly defines a vision for multi-modal travel and provides recommendations based on current best management practices for realizing the vision. This plan is intended to define the City’s future transportation needs and goals, guide the implementation of best practices for multi-modal travel and ensure these improvements are routinely considered in all public infrastructure projects.

To help guide this project, an Advisory Committee was established that included representatives from different stakeholder groups in the community which included members of City staff, Police Department, The Birmingham School District, Parks and Recreation, Planning Board, Principal Shopping District Board, Traffic and Safety Board, Advisory Parking Committee and individuals representing pedestrians, bicyclists, transit users, seniors and the physically handicapped. Those individuals were chosen because they were knowledgeable of the issues and could influence change.

# CITY OF BIRMINGHAM MULTIMODAL TRANSPORTATION PLAN

## INTRODUCTION

### 1.1 BENEFITS OF A MULTI-MODAL TRANSPORTATION PLAN

A multi-modal system based on best practices is of paramount importance to the health, safety and general welfare of the citizens of Birmingham. The benefits of a multi-modal system extend beyond the direct benefits to the users of the system but to the public as a whole. A well-implemented multi-modal system will reap rewards by:

- Providing viable transportation alternatives for individuals who are capable of independent travel yet do not hold a driver's license or have access to a motor vehicle at all times.
- Improving safety, especially for the young and old who are at most risk due to their dependence on non-motorized facilities and their physical abilities.
- Improving access for the 19% of all Americans who have some type of disability and the 13% of all Americans who have a severe disability.<sup>1</sup>
- Improving the economic viability of the community by making it an attractive place to locate a business while simultaneously reducing public and private health care costs associated with inactivity.
- Encouraging healthy lifestyles by promoting active living.
- Reducing the water, air, and noise pollution associated with automobile use by shifting local trips from automobiles to walking, bicycling or transit.
- Improving the aesthetics of the roadway and community by adding landscaping and medians that improve the pedestrian environment and safety.
- Providing more transportation choices that respect an individual's religious beliefs, environmental ethic, and/or uneasiness in operating a vehicle.
- Reducing the need for parking spaces.
- Creating a stronger social fabric by fostering the personal interaction that takes place while on foot, bicycle or using transit.
- Reducing dependence on and use of fossil fuel with the resulting positive impact on climate change.

Improvements to multi-modal facilities touch all individuals directly, as almost all trips begin and end as a pedestrian.

---

<sup>1</sup> Americans With Disabilities: 2010 Household Economic Studies, US Census Bureau

# INTRODUCTION

## 1.2 PLANNING PROCESS

The planning process was a multi-step effort led by the Steering Committee and shaped by public input. The planning process for the Multi-Modal Transportation Plan included the following major tasks:

- Inventory and Analysis of the existing transportation environment
- Review of other projects and studies that were relevant to the planning process
- Public Engagement in the form of two public workshops, a project website and a web based survey
- Monthly meetings with the Steering Committee
- Four meetings with the City Commission to update them on the progress of the project
- Development of a project vision, goals and objectives
- Identification of opportunities and determination of potential facilities
- Recommendations to provide a spectrum of facilities that provide a multi-modal network throughout the City for a variety of users
- Recommendations for the priority public policies, physical environment improvements, community programs and quality of life outcomes
- Identification and recommendations for transit facilities and amenities
- Development of an Implementation Action Plan that identified priority routes and phasing
- Providing planning level cost estimates for the first two phases
- Crafting a Multi-Modal Transportation Report and Network Map
- Approval by the City Commission for the adoption of the Multi-Modal Transportation Plan

The planning process took 14 months to complete, beginning in September 2012.



# CITY OF BIRMINGHAM MULTIMODAL TRANSPORTATION PLAN

## INTRODUCTION

### 1.3 PUBLIC ENGAGEMENT

#### OVERVIEW

Helping to shape this plan, has been a dedicated group of elected officials, appointed officials, public employees and the general public. The results of a web survey and the input gathered at two public workshops guided the proposed multi-modal network as well as setting implementation priorities. The public engagement process was designed to ensure that the City of Birmingham's Multi-Modal Transportation Plan reflects a shared vision supported by the community at large as well as the key stakeholders. The following pages give an overview of the public engagement process for this project.

#### PROJECT WEBSITE

A project website was created to help keep the public informed during the project. The website included an overview of the project, project schedule, links to surveys, survey results, presentations, meeting summaries and draft project documents. The project website can be found at: <http://www.greenwaycollab.com/Projects/Birmingham/BMMTP.html>

#### STAKEHOLDER KICK-OFF MEETING

The kick-off meeting for the project consisted of a selected group of stakeholders including the Steering Committee and members of City staff. The meeting included a presentation of best practices, a downtown walking audit and around town bicycling audit. The purpose of the meeting was to immerse the stakeholder group in the issues that they would be addressing over the course of the project and to create excitement about the effort that would spread beyond the initial stakeholder group.



#### WEB SURVEY

The first major public engagement effort was a web survey. The web survey was helpful as it permitted input from a large number of people who were not able or inclined to come to one of the public workshops. The web survey was available for two weeks at the end of October. 550 people began the survey and 429 completed the entire survey. The survey included both multiple choice selections as well as open-ended questions and collected information from the participants on a wide range of topics including, general information about the survey respondent, non-motorized travel, travel to school, public transit and project hopes and concerns. The information from the survey was used to guide the analysis as well as draft goals and objectives. Survey results can found in the Appendix.



Photo's courtesy of Carroll DeWeese

---

### **PUBLIC VISIONING WORKSHOP**

A Public Visioning Workshop was held on January 17, 2013 from 7:00pm to 9:00pm at the Baldwin Public Library. Forty-three people were in attendance. During the workshop, participants were given the opportunity to give input through a variety of individual and group exercises. The workshop began with an overview of best practices and web survey results and then a role playing exercise was conducted to get people to look at non-motorized and multi-modal transportation from a variety of perspectives. Following the role playing exercise there were a number of different exercises that focused on major and minor corridor evaluations, Downtown Birmingham, Woodward Avenue, and neighborhood connector routes and trail connections. The project vision, goals and objectives were also introduced and participants were asked to complete a short web survey that was available for one week after the workshop. Results from the Public Visioning Workshop can be found in the Appendix.

---

### **PRELIMINARY PLAN OPEN HOUSE**

A Preliminary Plan Open House was held on February 28, 2013 with two identical sessions held from 3:00pm to 5:00pm and from 7:00pm to 9:00pm at the Baldwin Public Library. The total attendance for both sessions was thirty-seven people. Each session began with a short presentation of the preliminary plan recommendations. Following the presentation, stations were set-up around the room where participants could provide feedback and agree or disagree with other participant's comments to help build a consensus. Results from the Preliminary Plan Open House can be found in the Appendix.



## INTRODUCTION

### 1.4 VISION, GOALS AND OBJECTIVES

#### OVERVIEW

The following vision, goals and objectives were developed to guide the development of the plan. They evolved through an extensive public involvement process that began with a web survey that was completed by 429 people. Participants were asked to individually list their top three desired project outcome. From this visioning process the project team found that the desired “outcomes” of the plan fell into the following general categories:

- Pedestrian & Bicycle Friendly Community
- Increase in Alternative Transportation
- Safety
- Inclusive Multi-Modal System

Using the survey input as a guide, the project team developed goals and objectives for the plan that would deliver these outcomes. The vision, goals and objectives were then presented at the public visioning workshop and participants were asked to complete a short web survey to indicate their agreement or disagreement and offer modifications to improve them. Public input was incorporated as appropriate and the following vision, goals and objectives resulted.

#### COMMUNITY VISION:

**The City of Birmingham seeks to build upon its brand as a walkable community. The purpose of this plan is to provide a document that the Community may reference when contemplating future actions regarding infrastructure, policies and programs.**

**It is envisioned that this plan will guide improvements designed to give people additional transportation choices, thereby enhancing the quality of life in the City of Birmingham.**

---

**GOAL ONE: COMPLETE THE INFRASTRUCTURE**

Provide an appropriate balance between motorized and non-motorized methods of transportation.

**OBJECTIVES:**

- a. Expand the infrastructure as necessary to create a more pedestrian, bicycle and transit friendly community
- b. Provide convenient and appropriate road crossing opportunities for pedestrians and bicyclists
- c. Provide additional and enhanced bicycle parking options
- d. Enhance transit amenities (e.g. shelters, benches, information resources, etc.) including appropriate pedestrian and bicycle connections to the transit facilities

---

**GOAL TWO: A CONNECTED COMMUNITY**

Create a greater sense of community by improving and increasing the opportunities for social interactions between those walking, bicycling and taking transit.

**OBJECTIVES:**

- a. Increase the number people walking, bicycling and taking transit, especially for daily transportation trips such as commuting to work and running errands
- b. Increase the number of children walking and bicycling to school

---

**GOAL THREE: INCLUSIVE TRANSPORTATION SYSTEM**

Develop a multi-modal system that respects the unique needs of all different users.

**OBJECTIVES:**

- a. Reduce negative and dangerous interactions between motorists, transit users, bicyclists and pedestrians
- b. Enhance the ability for youth, seniors and persons with physical and/or cognitive challenges to travel throughout the community independently
- c. Develop strategies to educate all transportation system users to create an atmosphere of respect among all travelers

Together, the three goals will combine to enhance the safety of the citizens and visitors of Birmingham through appropriate infrastructure, safety in numbers and a greater understanding among all users of the City's transportation system.

# CITY OF BIRMINGHAM MULTIMODAL TRANSPORTATION PLAN

## INTRODUCTION

### 1.5 INVENTORY AND ANALYSIS

#### OVERVIEW

The inventory and analysis process provided a detailed assessment of the existing multi-modal environment including current policies, programs and statistics. A thorough understanding of the existing conditions helps to identify what multi-modal improvements are possible and appropriate.

The following inventory and analysis assessments were conducted:

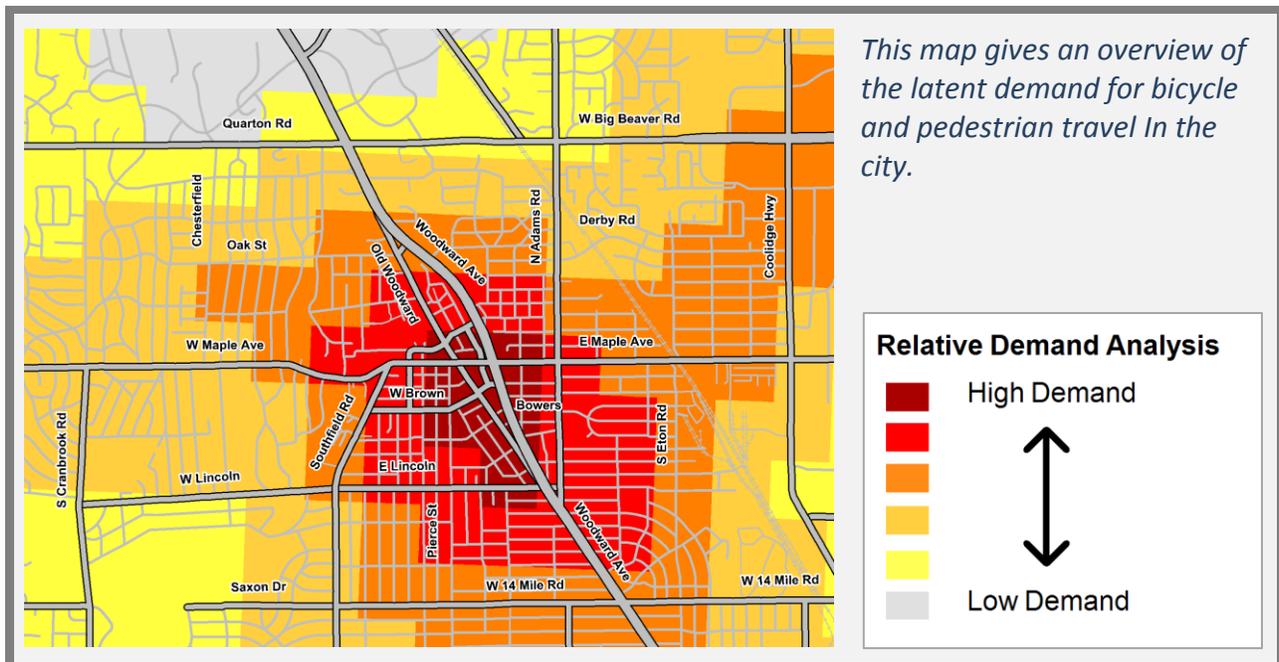
- Evaluation of the existing roadway system including, road width, number of lanes, speed limit and the resulting bicycle level of service and pedestrian road crossing difficulty
- Evaluation of the existing sidewalk completeness, placement and buffer conditions and the resulting sidewalk level of service
- Documentation of the location and type of existing pedestrian crosswalks and the resulting crosswalk spacing analysis
- Documentation of off-road trail system
- Evaluation of the primary road system to determine the degree to which the roads are capable of incorporating bicycle lanes via, lane narrowing, 4 to 3 lane conversions, paved shoulders and other roadway reconfigurations and an assessment of the resulting implications of the roadway modifications options to motor vehicle LOS
- Evaluation of the existing SMART bus stops
- Preparation of a relative demand model that considered block size, population density, job density, access to transit, land use diversity and activity generators, to contrast system deficiencies against demands as well as help priority improvements
- Evaluation of the urban form including a block size analysis
- Evaluation of bicycle and pedestrian crashes
- Evaluation of existing access issues related to ADA
- Evaluation of eight intersections identified by the City
- Evaluation of the current public policy issues
- Existing community program assessment
- Review of existing plans from the City of Birmingham, Oakland County, Woodward Corridor and adjacent communities and townships

A detailed report of the inventory and analysis for the physical environment is provided in the Appendix.

## KEY FINDINGS

The following are some of the key findings that influenced the development of the Bicycle & Pedestrian Plan:

- The City is characterized by a central located vibrant downtown, wide range of housing opportunities, strong commercial corridors and high density development well served by public amenities.
- The City has a dense urban grid with a nearly complete sidewalk system that contributes to a bicycle and pedestrian friendly community.
- Beyond the Rouge Trails, which are mainly used for recreational use, there are limited transportation facilities for bicyclists in the City.
- Opportunities to cross busy roads are limited with poor bicycle and pedestrian connectivity between neighborhood and destinations that are located on opposite of the roadway; this is especially true for Woodward Avenue.
- Only a small percentage of Birmingham residents currently use transit in the City of Birmingham. SMART provides bus service along the primary arterials with limited service on the weekends. Amtrak service is available in the Rail District with a new Intermodal Transit Center planned in Troy.
- Based on the web survey and relative demand analysis, Downtown Birmingham has a high latent demand for bicycle and pedestrian travel.
- Speeding is an issue on some of the collector roads such as Lincoln and Eton.



CITY OF BIRMINGHAM MULTIMODAL TRANSPORTATION PLAN   
**INTRODUCTION**

**1.6 PROJECT APPROACH**

The purpose of the Multi-Modal Transportation Plan is to identify the means to establish a physical and cultural environment that supports and encourages safe, comfortable and convenient ways for a wide spectrum of pedestrians, bicyclists and transit users to travel throughout the City and into the surrounding communities all while respecting the need to maintain an appropriate level of service for motorized transportation. It is anticipated that the physical and cultural changes will result in a greater number of individuals choosing walking, bicycling and transit as their preferred mode of transportation for many local trips. These choices will in turn lead to healthier lifestyles, improved air and water quality, and a more energy efficient and sustainable transportation system.



The project approach is based on three essential elements that create quality of life as they influence the number of people who walk, bike and take transit: Public Policies, the Physical Environment and Community Programs. The graphic on the previous page shows the key issues within these three elements and the culminating in quality of life outcomes that will be the ultimate measure of the project’s success.

---

## PROPOSED RECOMMENDATIONS

The following chapters of this plan focus on the priority near-term improvements that were identified for public policies, physical environment, community programs and quality of life outcomes.

It should be noted that the purpose of this plan is to provide a general background on the issues of multi-modal transportation as well as to present a proposal on how to address the issues through specific policies, programs, and design guidelines for facility improvements. This is not intended to be a replacement for the *AASHTO Guide for the Development of Bicycle Facilities*, *AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities*, *AASHTO Guide for Achieving Flexibility in Highway Design*, *USDOT’s Designing Sidewalks and Trails for Access – Part II*, *Best Practices Design Guide*, *Accessible Public Right-of-Way, Planning and Designing for Alternations*, the *Revised Draft Guidelines for Accessible Public Rights-of-Way*, *Manual of Uniform Traffic Control Devices*, *Michigan Manual of Uniform Traffic Control Devices* or any other applicable federal, state, or local guidelines. Rather, it is intended as a synthesis of key aspects of those documents and to provide an interpretation on how they may be applied in typical situations in the City of Birmingham. Given the evolving nature of multi-modal transportation planning, these guidelines should be periodically reevaluated to determine their appropriateness.

---

## MASTER PLAN LEVEL RECOMMENDATIONS VS. DETAILED AREA STUDIES AND DESIGNS

The facility recommendations within this plan represent a Master Plan level evaluation of the suitability of the proposed facilities for the existing conditions. Prior to proceeding with any of the recommendations in this report, a more detailed corridor level assessment or traffic study should be done in order to fully investigate the appropriateness of the proposed roadway modifications and/or proposed bicycle, pedestrian or transit facilities.



# CITY OF BIRMINGHAM MULTIMODAL TRANSPORTATION PLAN

## INTRODUCTION

### 1.7 GLOSSARY OF TERMS

Within this document there are a number of terms that may be unfamiliar to many people. The following is a brief glossary of some of the transportation terms that are found in this document:

**AASHTO** – American Association of State Highway & Transportation Officials.

**Bicycle Boulevard** - a low-volume and low-speed street that has been optimized for bicycle travel through treatments such as traffic calming and traffic reduction; signage and pavement markings; and intersection crossing treatments.

**Bike Lane** – a portion of the roadway designated for bicycle use. Pavement striping and markings sometimes accompanied with signage are used to delineate the lane. Examples can be found on portions of South Lake Drive, East Lake Drive and Taft Road.

**Bike Route** –a designation that can be applied to any type of bicycle facility. It is intended as an aid to help bicyclists find their way to a destination where the route is not obvious.

**Bulb-outs** – see Curb Extensions.

**Clear Zones** – area free of obstructions around roads, Shared-use Paths, and Walkways.

**Clearance Interval** – the flashing “Don’t Walk” or flashing “Red Hand” phase of pedestrian signals. It indicates to pedestrians that they should not begin to cross the street. A correctly timed clearance interval allows a pedestrian who entered the crosswalk during the “Walk” phase to finish crossing the street at an unhurried pace.

**Complete Street**- streets that are planned, designed, operated and maintained such that all users may safely, comfortably and conveniently move along and across streets throughout a community.

**Crossing Islands** – a raised median within a roadway typically set between opposing directions of traffic that permits pedestrians to cross the roadway in two stages. A crossing island may be located at signalized intersections and at unsignalized crosswalks. These are also known as **Refuge Islands**.

**Crosswalk** – the area of a roadway that connects sidewalks on either side at an intersection of roads (whether marked or not marked) and other locations distinctly indicated for pedestrian crossings by pavement markings.

**Curb Extensions** – extending the curb further into the intersections in order to minimize pedestrian crossing distance, also known as **Bulb-outs**.

**Dispersed Crossing** – where pedestrians typically cross the road at numerous points along the roadway, rather than at an officially marked crosswalk.

**E-Bike** – a bicycle that is propelled by an electric motor and/or peddling.

**Fines** – finely crushed gravel 3/8” or smaller. The fines may be loosely applied or bound together with a stabilizing agent.

**Inside Lane** – the travel lane adjacent to the center of the road or the Center Turn Lane.

**Ladder Style Crosswalk** – a special emphasis crosswalk marking where 1’ to 2’ wide white pavement markings are placed perpendicular to the direction of a crosswalk to clearly identify the crosswalk.

**Lateral Separation** – horizontal distance separating one use from another (pedestrians from cars, for example) or motor vehicles from a fixed obstruction such as a tree.

**Leading Pedestrian Interval** – a traffic signal phasing approach where the pedestrian “Walk” phase precedes the green light going in the same direction by generally 4 to 5 seconds.

**Level of Service (LOS)** – a measurement of the motor vehicle flow of a roadway expressed by a letter grade with “A” being best or free flowing and “F” being worst or forced flow/heavily congested.

**Mid-block Crossings** – locations that have been identified based on land uses, bus stop locations and the difficulty of crossing the street as probable candidates for Mid-block Crosswalks. Additional studies will need to be completed for each location to determine the ultimate suitability as a crosswalk location and appropriate solution to address the demand to cross the road.

**Mid-block Crosswalk** – a crosswalk where motorized vehicles are not controlled by a traffic signal or stop sign. At these locations, pedestrians wait for a gap in traffic to cross the street, motorists are required to yield to a pedestrian who is in the crosswalk (but not if the pedestrian is on the side of the road waiting to cross).

**MMUTCD** – Michigan Manual of Uniform Traffic Control Devices. This document is based on the National Manual of Uniform Traffic Control Devices (MUTCD). It specifies how signs,

pavement markings and traffic signals are to be used. The current version is the 2005 MMUTCD. It was adopted on August 15, 2005 and is based on the 2003 National MUTCD. In 2009 a new National MUTCD was adopted, the state has two years to adopt the national manual. Typically, there are only minor divergences between the two manuals due to specifics in Michigan traffic laws.

**Mode-share / Mode split** – the percent of trips for a particular mode of transportation relative to all trips. A mode-share / mode split may be for a particular type of trip such as home-to-work.

**Mode** – distinct types of transportation (cars, bicycles and pedestrians are all different modes of travel).

**MVC** – Michigan Vehicle Code, a state law addressing the operation of motor vehicles and other modes of transportation.

**Near-term Opportunities** –improvements that may generally be done with minimal changes to existing roadway infrastructure. They include road re-stripping projects, paved shoulders, new sidewalks and crossing islands. In general, existing curbs and drainage structures are not changed.

**Neighborhood Connector / Neighborhood Greenway** – a route that utilizes residential streets and short connecting pathways that link destinations such as parks, schools and **Shared Use Paths**. Neighborhood Greenways may contain the characteristics of a **Bicycle Boulevard** but, in addition, provide accommodations for pedestrians and sustainable design elements such as rain gardens.

**Out-of-Direction Travel** – travel in an out-of-the-way, undesirable direction.

**Outside Lane** – the travel lane closest to the side of the road.

**Off-road Trail** – see Shared Use Path

**Pedestrian Desire Lines** – preferred pedestrian direction of travel.

**Pedestrian Hybrid Beacon** –a warning device used at crosswalks to bring motorized traffic to a stop and allow pedestrians to cross the street. The beacon rests “dark” with no display. Traffic is brought to a stop by a sequence of a flashing amber light, followed by a solid amber light and finally a solid red signal at which point the pedestrian is given a “Walk” indication. When the pedestrian sees the flashing “Don’t Walk,” motorists see a alternating red signal indicating that they may proceed if the crosswalk is clear.

**Refuge Islands** – see Crossing Islands.

**Rectangular Rapid Flash Beacons (RRFB)** – are quickly alternating amber LED lights used in conjunction with a typical crosswalk or school crossing warning sign to supplement the signs visibility when a pedestrian is attempting to cross the road. Also known as an Active Warning Beacon.

**Roundabouts** – yield-based circular intersections that permit continuous vehicle travel movement.

**Shared Roadway** – bicycles and vehicles share the roadway without any portion of the road specifically designated for the bicycle use. Shared Roadways may have certain undesignated accommodations for bicyclists such as wide lanes, paved shoulders, and/or low speeds. These routes may also be signed and include pavement markings such as shared-use arrows.

**Shared Lane Markings** – a pavement marking consisting of a bike symbol with a double chevron above, also known as “sharrows”. These pavement markings are used for on-road bicycle facilities where the right-of-way is too narrow for designated bike lanes. The shared lane markings alerts cars to take caution and allow cyclist to safely travel in these lanes when striping is not possible. They are often used in conjunction with signage.

**Shared Use Path** – a wide pathway that is separate from a roadway by an open unpaved space or barrier or located completely away from a roadway. A Shared Use Path is shared by bicyclists and pedestrians. There are numerous sub-types of Shared Use Paths including Sidewalk Bikeways that have unique characteristics and issues. An example of a Shared Use Path would be the I-275 Metro Trail.

**Roadside Pathway** – a specific type of Shared Use Path that parallels a roadway generally within the road right-of-way. This is also known as a **Sidepath**.

**Signalized Crosswalk** – a crosswalk where motor vehicle and pedestrian movements are controlled by traffic signals. These are most frequently a part of a signalized roadway intersection but a signal may be installed solely to facilitate pedestrians crossings.

**Speed Table** – raised area across the road with a flat top to slow traffic.

**UTC** – Uniform Traffic Code, is a set of laws that can be adopted by municipalities to become local law that address the operation of motor vehicles and other modes of transportation. The UTC is a complementary set of laws to the MVC.

**Yield Lines** – a row of triangle shaped pavement markings placed on a roadway to signal to vehicles the appropriate place to yield right-of-way. This is a new pavement marking that is used in conjunction with the new “Yield to Pedestrians Here” sign in advance of marked crosswalks.

# POLICY AND PROGRAM RECOMMENDATIONS

Policies have a direct impact on the physical environment and programs influence how the physical environment is used and success measured. Based on input from the Steering Committee, City Staff and the public engagement efforts the following policies, programs and quality of life measurements were found to be of high priority for the City of Birmingham.

It is recommended that the City focus on implementing these policies in the near-term. Every few years these public policy improvements should be re-evaluated to determine their progress and if there is a new policy the City should focus on. The following pages give a detailed overview of the priority public policies and the steps that need to be taken to bring them to fruition.

---

**TOPICS:**

2.1	TRANSPORTATION PROJECT COORDINATION & PUBLIC INPUT	PAGE 22
2.2	BICYCLE PARKING	PAGE 24
2.3	SNOW REMOVAL	PAGE 26
2.4	ADA TRANSITION PLAN	PAGE 28
2.5	WALKING & BIKING MAPS	PAGE 32
2.6	BICYCLE AND PEDESTRIAN COUNTS	PAGE 34
2.7	BICYCLE AND PEDESTRIAN CRASH TRACKING	PAGE 36
2.8	COMMUNITY RECOGNITION	PAGE 38
2.9	MEASUREMENTS OF INFRASTRUCTURE PROGRESS	PAGE 40

## 2.1 TRANSPORTATION PROJECT COORDINATION & PUBLIC INPUT

### DESCRIPTION

All transportation projects within the public right of way and off-road trails require oversight from multiple departments and public input from numerous perspectives.

A system should be put in place that upon initiation of any transportation project, a formal coordination procedure between engineering, planning and public safety is launched. This would include an initial project scoping meeting that addresses all of the complete streets principles.



In addition, a standing committee that has representation from a diverse range of travel modes, age groups and mobility issues should be established. The purpose of the group would be to provide design and planning input during the earliest stages of the project prior to the preparation of engineering drawings. This group would reference this plan and others in the review of any transportation project. It is envisioned that the committee would provide formal recommendations to the Planning Board and/or City Commission regarding specific projects.

### RECOMMENDATIONS

In 2011, the City of Birmingham passed a resolution of support for Complete Streets. To further the City of Birmingham's complete streets policy the following procedures are recommended:

- Set up a system for interdepartmental coordination between engineering, planning and public safety for all transportation projects.
- The interdepartmental group should use tools such as the 2010 Highway Capacity Manual to do multi-modal evaluations of alternatives.
- The interdepartmental group should develop a multi-modal checklist for projects that considers multi-modal issues such as pedestrian access along and across the roadway, variety of bicycle types along and across the roadway, transit, accessibility and visibility.
- The interdepartmental group should coordinate with non-governmental agencies on the implementation of the *Recommended Community Partner Programs* (See the Appendix for recommendations).

- Form a standing committee that has representation from the following perspectives:
  - School District Representative
  - Business Representative
  - Pedestrian Representative
  - Bicycle Representative
  - Transit Rider Representative
  - Representatives of the elderly/mobility/vision impaired community
  - Representative under 35 year olds
  - Traffic Representative
  - Planning Board Representative

As a result, this committee would have a similar composition to the steering committee assembled for this project and may be a direct outgrowth of that group.

---

#### **EXPECTED TIME FRAME FOR IMPLEMENTATION**

Within One Year:

- Form the City Council appointed committee.
- Set in place interdepartmental coordination procedures for all transportation projects and develop multi-modal checklist

Within Three Years to Five Years:

- Review the effectiveness of interdepartmental coordination procedures and committee composition and function and make change as needed

---

**RESPONSIBLE FOR MAKING IMPROVEMENTS:** DIRECTORS OF PLANNING & ENGINEERING DEPARTMENTS AND CHIEF OF POLICE.

#### Complete Streets Policies:

- Michigan Complete Streets Legislation (Public Acts 134 and 135) signed in 2010
- The City of Birmingham passed a resolution of support for Complete Streets in 2011
- Oakland County Commission passed a Complete Streets resolution in 2011
- The Road Commission for Oakland County accepted a set of Complete Streets Guidelines in 2012
- The State Transportation Commission officially adopted a Complete Streets policy in 2012

## 2.2 BICYCLE PARKING

### DESCRIPTION

The lack of a secure parking space discourages many people from using their bikes for basic transportation. When sufficient bike parking is not provided, theft becomes a concern and it leads to bike being locked up to sign posts, trees, benches and other street furniture. When bicycles are parked in these spaces they often disrupt pedestrian flow because the bikes impede the walkway. Bicycles also get impounded by local enforcement when parked in these areas causing an even greater deterrent to bicycle use. Bicycle parking needs to be visible, accessible, plentiful and convenient. If any of these criteria are not met, there is a good chance a cyclist will not use the facilities and will park their bike wherever they feel it will be safest.



Definition of a Bicycle Parking Space- A bicycle parking space is an area two feet by six feet or the area occupied by a bicycle when using a bicycle parking device as designed.

Short-Term Bicycle Parking - Short-term bicycle parking is defined as a rack to which the frame and at least one wheel can be secured with a user-provided U-lock or padlock and cable. This type of parking is appropriate for short term parking at locations such as shopping areas, libraries, restaurants and other places where typical parking duration is less than two hours. In 2012 the City of Birmingham put in an extensive number of short-term bicycle parking hoops in the downtown.

Long-Term Bicycle Parking- A long-term bicycle parking space is defined as protecting the entire bicycle and its components from inclement weather and theft or vandalism. It is to be located where it will serve the needs of cyclists who need to leave their bicycles unattended for extended periods of time, such as employees, tenants or residents.

### RECOMMENDATIONS

The City should update the code to include bicycle parking requirements and design standards. The following is a checklist of key policies that should be included:

- Require a minimum number of bicycle parking spaces at each commercial or multi-family development.

- For multi-family dwellings require a number of the bicycle parking spaces to be covered
- Incentives should be provided to commercial and multi-family dwellings for providing covered and/or secured bicycle parking (e.g. reduction of vehicular parking and/or density bonus could be offered)
- Require bicycle parking facilities to be credited toward provision of motor vehicle parking. For example, each ten required bicycle parking spaces, or fraction thereof, may be substituted for one code required motor vehicle parking space
- Require hoops on every block with retail in a downtown/commercial zone
- Provide secured and covered in downtown parking public garages as demand dictates. The cost for such should be offset by a monthly user fee. See specific area recommendations for more details.
- Provide a reference or graphical design guidelines with information on the specifics of bicycle rack design and placement. The Association of Pedestrian and Bicycle Professionals publishes a Bicycle Parking Guideline that serves as a good model and may be found at:  
[http://www.apbp.org/resource/resmgr/publications/bicycle\\_parking\\_guidelines.pdf](http://www.apbp.org/resource/resmgr/publications/bicycle_parking_guidelines.pdf)

For examples of bicycle parking ordinances check out the City of Ann Arbor at, [http://www.a2gov.org/government/city\\_administration/city\\_clerk/ordinances/Pages/Online%20City%20Code.aspx](http://www.a2gov.org/government/city_administration/city_clerk/ordinances/Pages/Online%20City%20Code.aspx) and the City of Lansing at, [http://www.lansingmi.gov/clerk/city\\_charter\\_&\\_ordinances.jsp](http://www.lansingmi.gov/clerk/city_charter_&_ordinances.jsp)

The City of Ann Arbor also provides a bike parking guide for businesses considering the installation of bike facilities at, [http://www.a2gov.org/government/publicservices/systems\\_planning/Transportation/Documents/BikeParkingGuide\\_Sep08.pdf](http://www.a2gov.org/government/publicservices/systems_planning/Transportation/Documents/BikeParkingGuide_Sep08.pdf)

---

#### **EXPECTED TIME FRAME FOR IMPLEMENTATION**

Within One Year:

- Update the local government code to include bicycle parking requirements and design standards

Within Three Years:

- Implement the bicycle parking requirements and design standards

---

**RESPONSIBLE FOR MAKING IMPROVEMENTS:** PLANNING DEPARTMENT

## 2.3 SNOW REMOVAL

### DESCRIPTION

People who rely on non-motorized transportation as a means of travel are often at the mercy of the weather, especially in the winter. In many communities the current practices of snow removal on sidewalks, curb cuts and crossing islands make large portions of the City impassible to many mobility impaired pedestrians as well as those pushing strollers or grocery carts.

Just as important for roads to be cleared for automobiles, it is important for sidewalks to be cleared for pedestrians. If the sidewalks are not cleared, many times pedestrians will use the cleared roadways instead of the sidewalk, presenting a dangerous situation for both cars and pedestrians.

Areas of special concern are curb ramps at intersections and pedestrian crossing islands. Generally, crossing islands are not the responsibility of adjacent property owners, so they require clearing by City staff. Additional attention may be needed to identify “orphan” areas, such as bridges, crossing islands and other public rights-of-way to ensure that these areas are cleared by the appropriate agency.



*Many northern cities around the globe maintain excellent facilities for non-motorized travel in the winter. For example Boulder, Colorado and Madison, Wisconsin have significant amounts of snow each winter (Boulder – 60”, Madison – 42”). Both of these cities have high bicycle mode-shares. Minneapolis and Madison have higher bicycle commuting rates than San Diego.*

### Web Survey Results:

Snow and ice removal from sidewalks and pathways was ranked third highest (65.8%) when asked what was most important to making future non-motorized trips actually happen

---

#### **KEY PROGRAMS TO CONTINUE**

The City of Birmingham currently has a snow removal policy in place. Property owners are responsible for the snow removal on the sidewalk adjoining their property within 12 hours after snow or ice ceases to fall or form during daylight hours or by 6:00 pm the following day if it ceases to fall or form during the nighttime. If it becomes necessary to immediately remove accumulations of snow and ice for the health, safety and/or welfare of the public by the City then the expense of clearing will be billed to the owner or occupant of the lot.

---

#### **RECOMMENDATIONS**

The City of Birmingham snow removal policy should be continued and enforced. Educational campaigns should be developed to encourage property owners to follow the existing snow removal ordinance. Additionally, a policy for maintenance and snow removal of “orphan” areas, such as crossing islands should be established.

---

#### **EXPECTED TIME FRAME FOR IMPLEMENTATION**

Within One Year:

- Develop an educational campaign encouraging property owners to clear curb ramps and bus stops when shoveling their sidewalks
- Establish a policy for maintenance and snow removal of crossing islands.

Within Three Years:

- The City should assess the effectiveness of the efforts of the code compliance staff to enforce the existing snow removal ordinance on privately owned hard surfaced sidewalks and pathways, specifically on local roads and private drives. If necessary, the City should develop a program to assure snow removal from privately owned sidewalks and pathways along Arterials and Collectors.
- The City should designate or hire additional staff and assign responsibility for clearing and maintaining crossing islands and off-road pathways of snow and ice.

---

**RESPONSIBLE FOR MAKING IMPROVEMENTS:** DEPARTMENT OF PUBLIC SAFETY

## 2.4 ADA TRANSITION PLAN

### DESCRIPTION

Title II of the Americans with Disabilities Act of 1990 (ADA) requires local governments to make their activities, programs and services accessible to persons with disabilities. In the area of non-motorized transportation, public entities with 50 or more employees are required to use accessible design standards for newly constructed and reconstructed sidewalks and shared use paths to the maximum extent feasible and make altered facilities through the City as part of a transition plan. Title II also requires that the public entity must regularly update the ADA plan and make the plan available to the public.



At a minimum an ADA transition plan should identify physical barriers and provide a detailed outline to remove those barriers. An ADA coordinator must be designated to coordinate compliance efforts.

### CITY OF BIRMINGHAM'S ADA TRANSITION PLAN

An Americans with Disabilities Act (ADA) Transition Plan element was included as a part of the Multimodal Transportation Plan. This effort focused on the public right-of-way and did not address other ADA-related issues such as buildings and communications. The ADA Transition Plan, included as an appendix, outlines existing conditions that impact accessibility in Birmingham, MI, while also identifying barriers that limit accessibility. It documents the City of Birmingham's ongoing commitment to making its public rights-of-way accessible.

By identifying both proactive and reactive strategies to improve accessibility, the plan outlines a framework for addressing accessibility moving forward. It is assumed that the document will need to be updated and expanded once an ongoing ADA related data collection effort is complete. In the coming years, ADA related data collection will be an ongoing need and it is assumed that the ADA Transition Plan will be updated regularly as new data become available. As such, this effort should be considered the first step in an ongoing process to document the City of Birmingham's commitment to and strategy for identifying and addressing barriers to accessibility.

The City will implement the following program and physical upgrades in the coming years as identified in the ADA Transition Plan.

---

**PROGRAM UPGRADES AND EXPECTED IMPLEMENTATION**

1. The City Engineer will be designated as the official ADA coordinator for the City of Birmingham. *(Timeframe: Within the next 2 years)*
2. The project Steering Committee, formed as part of the Multimodal Transportation Master Plan process, will become an official standing committee responsible for multi-modal issues, including ADA issues and compliance. In his/her capacity as the ADA Coordinator, the City Engineer will serve as a non-voting member of the committee. Insofar as possible, the committee should include disability advocates and members with knowledge of ADA regulations, in addition to members that represent pedestrian, bicycle, and transit rider perspectives. *(Timeframe: Within the next 2 years)*
3. The City will document and make publicly available ADA-related requests received and resolution obtained. The City is currently developing a system to track all public requests, including ADA related issues. *(Timeframe: Within the next 2 years)*
4. The City will continue a regular ADA training regimen to ensure that key staff members remain up to date on the latest ADA planning and design issues. The Engineering Department currently participates and will continue to participate in yearly staff trainings as available. In addition, new and existing staff will continue to be encouraged to attend trainings, especially as national standards change and evolve. The City may want to consider evaluating the proficiency of current staff and training to determine the level of new or updated training that should be undertaken. *(Timeframe: Ongoing)*
5. As noted, the City is currently collecting key ADA-related data. The data elements to be collected focus on curb ramp characteristics. Given current staff time and work load, the ADA database update will take 6 to 12 months to complete. Subsequent data collection efforts should focus on sidewalks, traffic signals and trails. Additional data items that will need to be collected include missing curb ramps, compliance of the accessible route along sidewalks, signal compliance, protruding objects, and other elements within the right-of-way with impacts to accessibility. *(Timeframe: Ongoing)*
6. The City will provide more detailed ADA-related information on its website and make it easier to locate and access. A separate ADA page will be created to serve as a “one stop shop” clearinghouse for all ADA-related information. This information will provide an educational function, for example by directing people to the location of national design standards documents and other publicly available ADA resources. *(Timeframe: Within the next 2 years)*
7. The ADA Transition Plan will be expanded and updated once the data collection effort described above is completed. This will allow the city to more specifically document its strategy for addressing physical barriers moving forward. A framework for addressing potential physical barriers is outlined below. *(Timeframe: Within the next 2 years)*

---

## POTENTIAL PHYSICAL UPGRADES

1. The City will continue all existing ADA-related investments including the sidewalk program, pedestrian countdown timer installation, road repaving, etc. *(Timeframe: Ongoing)*
2. The City will evaluate and retime all traffic signals to make pedestrian crossing times consistent with the latest MUTCD guidance. The first step will be to determine the number of signals that do not meet current standards and the second step will be to develop a strategy to proactively adjust a set number each year. This information should be detailed in the updated ADA Transition Plan once the data becomes available. *(Timeframe: Within the next 5 years)*
3. The City will continue to install pedestrian countdown signals and other signal upgrades throughout the city. *(Timeframe: Ongoing)*
4. As part of this study, specific recommendations were developed for eight intersections. The City's ability to implement recommendations at these locations will be determined by the extent and nature of the proposed changes. Potential recommendations include actuated signals, roundabouts, geometric improvements, and signal timing adjustments. *(Timeframe: Within the next 10 years)*



5. Upon completion of the curb ramp inventory and data collection process currently underway, the City will update this plan. It will initiate a proactive process to address deficient curb ramps and to build curb ramps where they are currently absent and are necessary. The size and scope of the effort will depend on the results of the data collection process. The goal will be to upgrade all curb ramps in the city to make them fully compliant in a specified amount of time as determined and stated in the updated plan. This will be accomplished through the following strategy:



- Curb ramps will be added and improved through reconstruction projects completed as a part of the City's five year Capital Improvement Program process.
- A standalone curb retrofit program will be initiated to improve noncompliant ramps in locations that are not already on the 5-year project list. This program will likely require an ongoing annual budget in order to make progress towards the goal every year. Alternatively, the program can be integrated with the ongoing sidewalk program. This would mean that ramps will be added and improved on a 7 year cycle, per the existing sidewalk program schedule. A prioritization methodology should be developed to inform the phasing of curb ramp improvements and/or to help identify focus areas for curb ramp improvements.

*(Timeframe: Within the next 10 years)*

6. The City will implement targeted sidewalk widening projects using an established prioritization methodology to determine phasing. Many of the sidewalks in the City are four feet wide. In many cases these will be maintained as is; however, the goal will be to develop a framework for determining locations where a five foot minimum on residential roads, six foot minimum on collector roads and eight foot minimum on arterial roads should be considered. In many cases, private developers would implement these new sidewalks as part of their development. To inform this effort, criteria should be developed to guide and formalize decisions about whether to continue to improve a four foot sidewalk or upgrade and widen it in its entirety. Conditions that could lead to the decision to widen the sidewalk should be outlined, and could include high existing or projected demand, proximity to generators, poor current conditions, and available right-of-way. *(Timeframe: Within the next 10 years)*

## 2.5 WALKING & BIKING MAPS

### DESCRIPTION

A bicycle map does more than simply provide wayfinding information. It helps build the brand of the community as an accommodating and welcoming place to bicyclists. A walking map is usually developed for downtown areas and highlights the different amenities and resources in the area. A map can also be an effective marketing tool for local merchants and businesses by offering advertising and sponsorship space, which can offset the cost of production and printing.



### RECOMMENDATIONS

A walking and biking map of Birmingham should be created that includes the following:

- A bike map should include the entire street network and community destinations as a base. Some maps are prescriptive in that they color code routes based on bicycle level of service or highlight recommended routes. Others are informational providing data on traffic volumes and existing facilities to let cyclists make choices based on their own skill sets. The maps should include information on bicycle laws and safety recommendations as well as trail etiquette.
- A walking map should include destinations, including both publicly owned structures such as museums and libraries as well as private enterprises that are open to the public. The map may also include suggested walking routes, local walking events and safety information.
- The map should be a standalone document distributed to every household to generate excitement and awareness about walking and bicycling in the community. The goal should be to provide the map at no cost to the end user. Map production and print costs can be offset by selling advertising or underwriting from tourism organizations. The map can be paired with other publications already targeting residents' mailboxes for efficiency and coverage as well. The map should be located at welcome centers, gas stations, parking garages, bicycle shops, businesses and kiosks for further distribution.
- An outstanding walking and bicycle map has the potential to be the community map of choice even for households that do not bicycle or walk. This provides an opportunity to help promote understanding between bicyclists, pedestrians and motorists.

---

**EXPECTED TIME FRAME FOR IMPLEMENTATION**

Within Two Years:

- Develop and distribute maps

Within Five Years:

- Update map with new facilities every few years

---

***RESPONSIBLE FOR MAKING IMPROVEMENTS:*** PLANNING DEPARTMENT

Web Survey Results:

- Around 80% of respondents feel maps of available pedestrians and bicycle facilities are very important or somewhat important to making future walking and bicycling trips actually happen



---

**EXPECTED TIME FRAME FOR IMPLEMENTATION**

Within One Year:

- Identify approximately a dozen locations around town where pedestrian and bicycle counts will be taken.
- Become involved in the National Bicycle and Pedestrian Documentation Project and make at least one count at each of the locations.

On a yearly basis:

- Always conduct counts before a facility is improved to document changes that are the result of a facility being constructed
- Conduct bicycle and pedestrian counts from the same locations every year

---

***RESPONSIBLE FOR BICYCLE AND PEDESTRIAN COUNTS:* PLANNING DEPARTMENT**



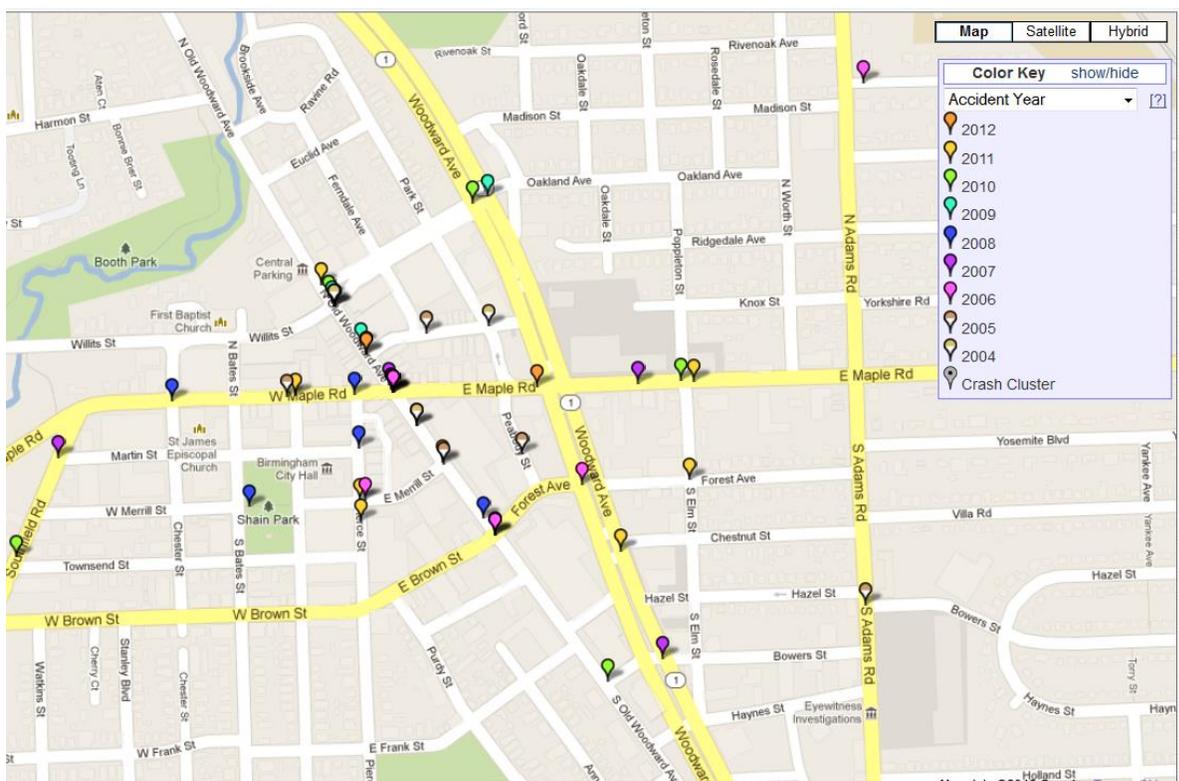
## 2.7 BICYCLE AND PEDESTRIAN CRASH TRACKING

### DESCRIPTION

Streets without safe places to walk, cross, catch a bus or bicycle put people at risk. Nearly 5,000 pedestrians and bicyclists died on U.S. roads in 2010 and more than 120,000 were injured. Bicycle and pedestrian crashes should be monitored and analyzed on a yearly basis. Frequency, type, severity, time of day, time of year, road conditions and location should be analyzed to identify commonalities between crashes and determine how they can be mitigated. Studies have found that measures that design the street with pedestrians and bicycles in mind, such as sidewalks, raised medians, bus stop placement and traffic-calming measures, improve safety for non-motorized users.

### RECOMMENDATIONS

Crash rates should be analyzed on a yearly basis by comparing the number of crashes with the pedestrian and bicycle counts that were conducted in the same year (described in previous section). In general, past studies have shown that an increase in the number of bicycle and pedestrians leads to a decrease in crash rates.



Michigan Traffic Crash Facts: <http://www.michigantrafficcrashfacts.org/datatool/build.php>

---

**EXPECTED TIME FRAME FOR IMPLEMENTATION**

On a Yearly Basis:

- Identify pedestrian and bicycle crash locations on a yearly basis
- Compare crashes with bicycle and pedestrian counts to determine crash rates

---

**RESPONSIBLE FOR ANALYSIS: POLICE DEPARTMENT**

Inventory & Analysis:

- There were 44 bicycle crashes during the 8 year period (2004 – 2011) for the City of Birmingham – No fatalities were reported and 7 crashes resulted in serious injury
- There were 67 pedestrian crashes during the 8 year period (2004 – 2011) for the City of Birmingham – 2 fatalities were reported and 13 crashes resulted in serious injury

## 2.8 COMMUNITY RECOGNITION

### DESCRIPTION

Sense of place is challenging to measure but community recognitions and awards can help provide an outlook on a community's quality of life. If a community receives an award it becomes a great promotional tool not only for the program but for the community as a whole.

### RECOMMENDATIONS

The following is a list of awards and recognitions that a community should strive to fulfill.

- Complete application for Bike Friendly Community Award with community and partner input***  
The League of American Bicyclists promotes communities throughout the country with its Bike Friendly Community Award. The process of applying for the award is a great way to determine what is being done in the community as well as where improvements might need to be made. The community can be engaged in the process of applying for the award through public meetings.
- Complete application for the Promoting Active Communities Award with community and partner input***  
The Promoting Active Communities Award is a Michigan-Based award for communities that show a strong commitment to supporting physical activity. This award is a great way to engage the community in multi-modal transportation issues as well as a good promotional tool, should a community receive a designation. The City has participated in this award in the past and currently holds gold status.
- Encourage local businesses to complete application for the Bicycle Friendly Business Award***  
The Bicycle Friendly Business award, put on by the League of American Bicyclists, recognizes employers' efforts to encourage a more bicycle friendly atmosphere for employees and customers. The program honors innovative bike friendly efforts and provides technical assistance and information to help companies and organizations become even better for bicyclists.
- Recognition in Regional and State Media***  
Many times communities are recognized through state and regional press for bicycle and pedestrian improvements. It is important to use these opportunities to promote current programs and leverage future initiatives.

---

**EXPECTED TIME FRAME FOR IMPLEMENTATION**

On a Yearly Basis:

- Apply for Awards
- Encourage local business to apply for awards
- Brag about the Cities progress and accomplishments in multi-modal transportation

---

***RESPONSIBLE FOR APPLICATIONS:*** PLANNING DEPARTMENT

The City of Birmingham was awarded the Gold Promoting Active Communities Award

## 2.9 MEASUREMENTS OF INFRASTRUCTURE PROGRESS

### DESCRIPTION

A relatively simple way to measure the progress of the Multi-modal Transportation Network is to track the miles of facilities built every year. Beyond tracking the progress, it is important to keep up-to-date documentation of these facilities because these measurements are used to apply for awards.

### RECOMMENDATIONS

- Track the miles of built facilities in the multi-modal network. The miles of built facilities should be documented on a yearly basis to track the development of the multi-modal network. The miles of bike lanes, pathways, sidewalks, neighborhood connectors/bike routes, number of mid-block crossing improvements and number of bike parking spaces should be tracked.
  
- Publish the statistics to a public forum such as the City's website.



### EXPECTED TIME FRAME FOR IMPLEMENTATION

On a Yearly Basis:

- Track the miles of built facilities
- Publish the statistics

**RESPONSIBLE FOR UPDATES:** ENGINEERING DEPARTMENT

# CITY OF BIRMINGHAM MULTIMODAL TRANSPORTATION PLAN

## PHYSICAL ENVIRONMENT RECOMMENDATIONS

### CHAPTER 3

## PHYSICAL ENVIRONMENT

The physical environment of a community says a lot about where bicycles and pedestrians stand in a community's priority list. A strong presence of multi-modal transportation facilities does not only help pedestrians, bicyclists and transit users get around conveniently, safely and comfortably, it signals to motorists to expect these users on the roadway and underscores that they are officially endorsed modes of travel. The following describes the key Physical Environment issues that were evaluated as part of the planning process.



**URBAN FORM** – The grain of a community's street network is probably the most significant indicator of the potential for multi-modal travel. Population density and diversity of land uses can also be used to predict demand. The urban form is studied to identify where improvements are most needed and where they will do the most good.

**PUBLIC RIGHT-OF-WAY** – All streets from the leafy low speed residential streets to the busiest commercial arterials need to be complete streets. But how that is accomplished and how the different modes are accommodated will change with the street's primary purpose and context.

**PUBLIC SPACES** – Parks, plazas, and transit stations are all important destinations for bicyclists and pedestrians.

**OFF-ROAD TRAILS** – The showpieces of a community's multi-modal transportation network is often off-road trails; but they do not exist in a vacuum. Issues include trail design, amenities and how the trails are linked to the greater multi-modal network.

**WAYFINDING** – Oftentimes there are great "secret" back ways to key places around town by bike or foot that avoid a lot the busier roads. Marking not only the routes, but where they lead to and how far away they are is an outstanding way for on the ground marketing.

**BICYCLE AND PEDESTRIAN SUPPORT FACILITIES** – A route does not complete the transportation system. Like with automobiles, parking of a variety of types, maintenance,

breakdown assistance, rest areas and water sources are necessary to create a functional system.

**ENVIRONMENTAL AND ART ENHANCEMENTS** – A community’s streets are its most significant public space. They are the public form, they define a community, they are the place we spend the most time recreating and too often they are treated as purely utilitarian enterprises. They also have a significant impact on the environment. Integrating “Green Street” technologies such as rain gardens, tree cover and LED lighting help reduce the environmental impact. Art and community gardens make streets a resource and enhance property values.



---

## PRIORITY IMPROVEMENTS TO THE PHYSICAL ENVIRONMENT

Based on input from the Steering Committee, City Staff and public engagement efforts the following improvements to the physical environment were found to be of high priority for the City of Birmingham.

- Adding bicycle and pedestrian facilities to auto focused corridors
- Providing bicycle support infrastructure
- Enhanced amenities for off-road trails

The following pages provide recommendations that focus on these issues and how they can realistically be addressed in the near-term with the existing opportunities and limitations.

Every few years the improvements should be re-evaluated to determine their progress and if there are new items that the City should focus on. Please refer to the supplemental document, *Physical Environment Evaluations*, for assistance.

The following pages give a detailed overview of the proposed improvements to the physical environment.

---

### TOPICS:

3.1	MULTI-MODAL NETWORK	PAGE 44
3.2	SIDEWALKS	PAGE 48
3.3	ROAD CROSSING IMPROVEMENTS	PAGE 50
3.4	BIKE LANES	PAGE 54
3.5	BUFFERED BIKE LANES	PAGE 56
3.6	SHARED LANE MARKINGS	PAGE 88
3.7	NEIGHBORHOOD CONNECTOR ROUTES	PAGE 60
3.8	PEDESTRIAN & BICYCLE WAYFINDING	PAGE 62
3.9	NEIGHBORHOOD GREENWAY	PAGE 64
3.10	TREE EXTENSIONS	PAGE 65
3.11	BICYCLE PARKING	PAGE 66
3.12	TRANSIT FACILITY AMENITIES	PAGE 68
3.13	INTERSECTION RECOMMENDATIONS	PAGE 70

### 3.1 MULTI-MODAL NETWORK

#### GENERAL PROJECT APPROACH

A single transportation corridor can be viewed very differently depending on a person’s perspective. This is impacted not only by their mode of travel, by foot, bicycle, riding a bus or driving a motor vehicle, but also their intention. Is the person moving along or trying to cross the corridor or are they simply trying to enter the corridor from a side street? When traveling along a corridor the desire will be to travel at a high rate of speed, uninterrupted by signals or stop signs no matter what mode of travel. However, when crossing the same corridor the desire will be for convenient opportunities with minimal delay.

There is only so much right-of-way available for each corridor and this plan looks at how the needs of all of the different users can be balanced in that space.

The following provides a summary of the approach for the different street types in the City.

#### LOCAL ROADS

These roads, located for the most part in residential areas, already have low speeds and low volumes. Most bicyclists can comfortably share these roads with motorists. A network that uses the local system has been identified that links neighborhoods to parks, schools and the downtown. In some places, the local road network is supplemented with short connecting pathways through schools, parks and between neighborhoods. This allows for more direct travel for pedestrians and bicyclists than is possible by motor vehicles.

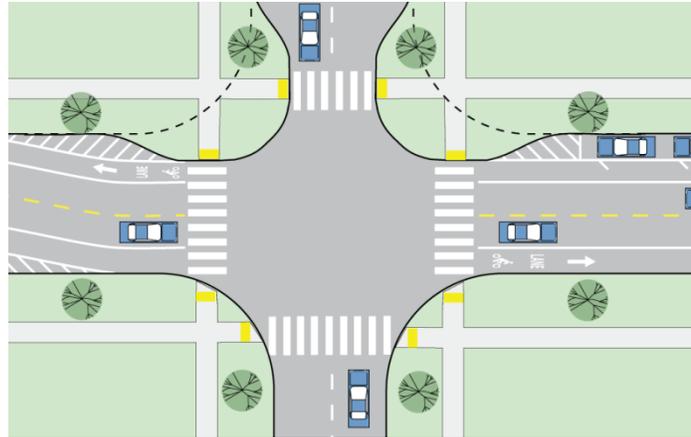
One key improvement is a wayfinding system that directs pedestrians and bicyclists to key destinations and that includes information on how far it is to the destination. The other key improvement is making sure that when these routes intersect busier roadways there is a safe way for pedestrians and bicyclists to cross the roadway. Elements such as traffic calming, public art, rain gardens and historic features can be added to enhance the routes over time.



## COLLECTORS AND SIGNIFICANT LOCAL ROADS

Collectors, such as Lincoln and other significant local roads such as Oak Ave and Eton Road, carry more motorized vehicle traffic but are also key routes for pedestrians and bicyclists. In most cases these roads are bordered by residences. For these streets, an emphasis has been placed on the needs of pedestrians and bicyclists. These roadways will have design elements such as frequent mid-block crossings, curb extensions, medians and street trees that will result in motorists naturally driving the roadway at 25 to 30 mph.

The proposed changes will not reduce the number of lanes as all of these roads are currently two-lane roads. The changes focus on how parking is configured, intersection improvements and traffic calming measures. Where the road width and parking demand permits, bike lanes are recommended. Where that is not possible, shared lane markings are recommended.



The result is that the road will be a much more comfortable environment to walk along and cross. For bicyclists, the differential between their speed and the speed of motor vehicles will be reduced making it more comfortable and safe to bicycle.

## ARTERIAL STREETS

There are some streets in the City that need to carry large volumes of motor vehicles. The intent with these corridors is to maintain the motor vehicle capacity while improving safety for all users. Enhanced pedestrian crosswalks will help pedestrians safely cross the busier streets at high demand locations. Bike lanes will be introduced wherever possible to provide a greater separation between bicyclists and motorists. Where this is not feasible, alternative routes (using local roads) have been identified. In the case of Woodward Avenue, pedestrians and bicyclists will be buffered from the through traffic.



---

## PROPOSED MULTI-MODAL NETWORK

The solution for a community's multi-modal network is not one dimensional, but rather responds to the needs of the various users and trip types. By doing so, the plan addresses the needs of the majority of the community's population, not simply a small interest group.

The proposed multi-modal network recognizes that pedestrians, bicyclists and transit users are a diverse population and that no one solution will apply to all users. Thus, bike lanes and sidewalks have been proposed along the primary roads in the City. Some of these roads are more oriented to bicyclists and pedestrians than others, as they carry fewer motor vehicles and will be designed such to keep motor vehicle speeds in the 30 to 35 mph range. Complementing the primary road system will be a network of neighborhood connectors and off-road trails that provide access to key destinations in the City while minimizing exposure to a large volume of high speed motor vehicles. Once implemented, together they will provide a city wide multi-modal network that users of all ages and abilities will be able to enjoy.

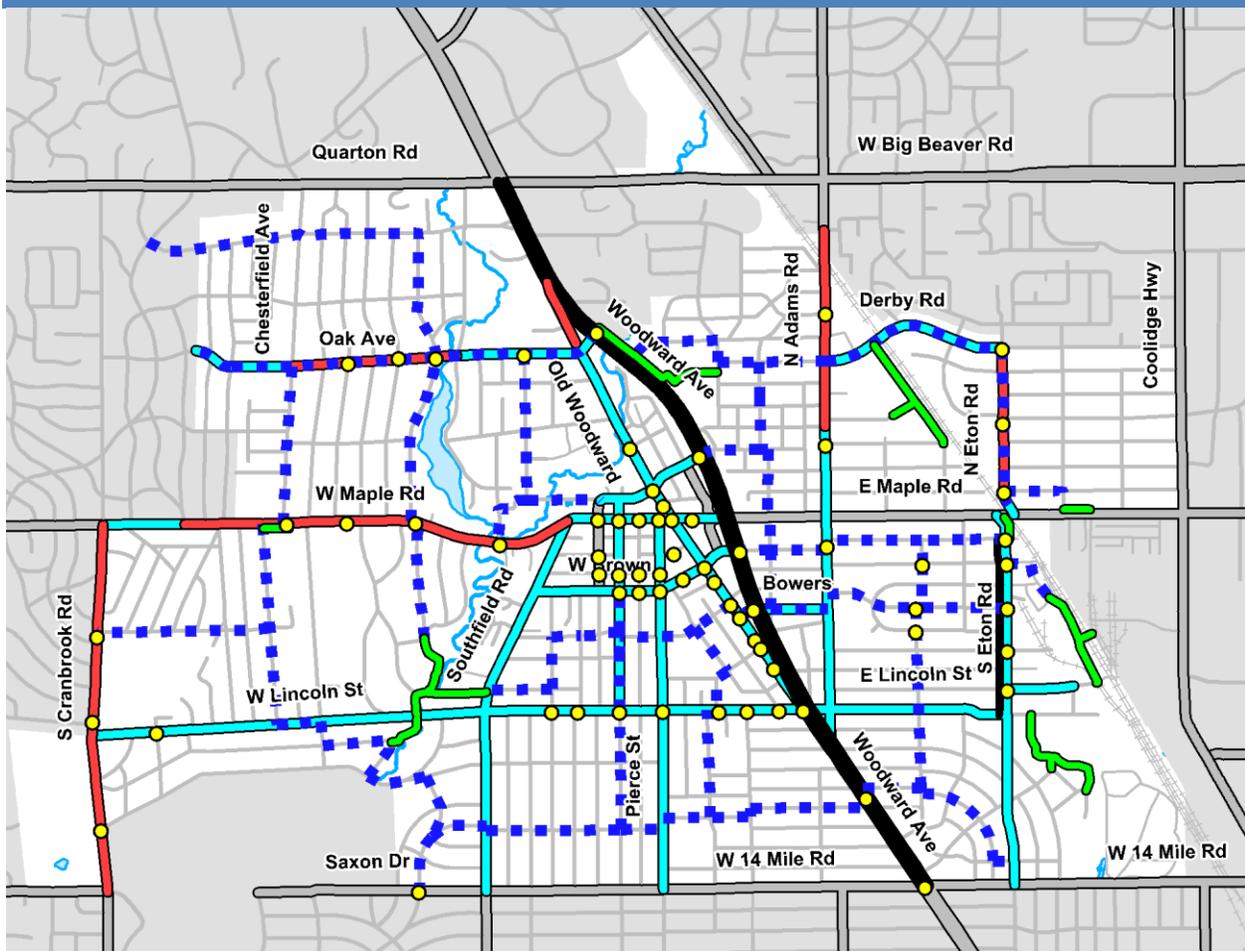
*The following pages provide a more detailed breakdown of the multi-modal network:*

---

- *Sidewalks*
- *Road Crossing Improvements*
- *Bike Lanes*
- *Buffered Bike Lanes*
- *Shared Lane Markings*
- *Neighborhood Connector Routes*
- *Pedestrian & Bicycle Wayfinding*
- *Neighborhood Greenway*
- *Tree Extensions*
- *Bicycle Parking*
- *Transit Facilities Amenities*
- *Intersections*

Please refer to Fig. 3.1 for an overview map of the proposed multi-modal network. In addition, a large map of the proposed network can be downloaded from the project webpage at <http://greenwaycollab.com/Projects/Birmingham/Birmingham.html>

**FIGURE 3.1E OVERVIEW OF PROPOSED MULTI-MODAL NETWORK**



**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

## 3.2 SIDEWALKS

### DESCRIPTION

Sidewalks are the unsung heroes of a multi-modal system. They are usually the first facilities to be constructed and provide a backbone to a complete multi-modal network. They are one of the key components to a walkable community and should be completed on both sides of all roads in an urban area.

A community's long term goal should be to provide sidewalks on both sides of the roadway along all roads.

Sidewalks are proven to reduce pedestrian crashes and are critical to children safely walking to school, especially in dark conditions. Providing a complete sidewalk network along all roadways is important from a safety and connectivity standpoint and the city should work towards completing its network.

For the most up-to-date guidelines please refer to AASHTO's *Guide for the Planning, Design, and Operation of Pedestrian Facilities*.

All newly constructed and reconstructed sidewalks and shared use pathways should be in compliance with Title II of the Americans with Disabilities Act of 1990 (ADA). Please refer to the *Accessible Public Rights-of-Way: Planning and Designing for Alternatives* guide for more information.



### RECOMMENDATIONS

The first priority is to provide sidewalks along all the major roadways. In the near-term the City should focus on completing sidewalk gaps along S Cranbrook Road to connect to the high school and dog park and along S Old Woodard to connect on-street parking to the businesses along the corridor. Please refer to the Network Implementation Plan for more details.

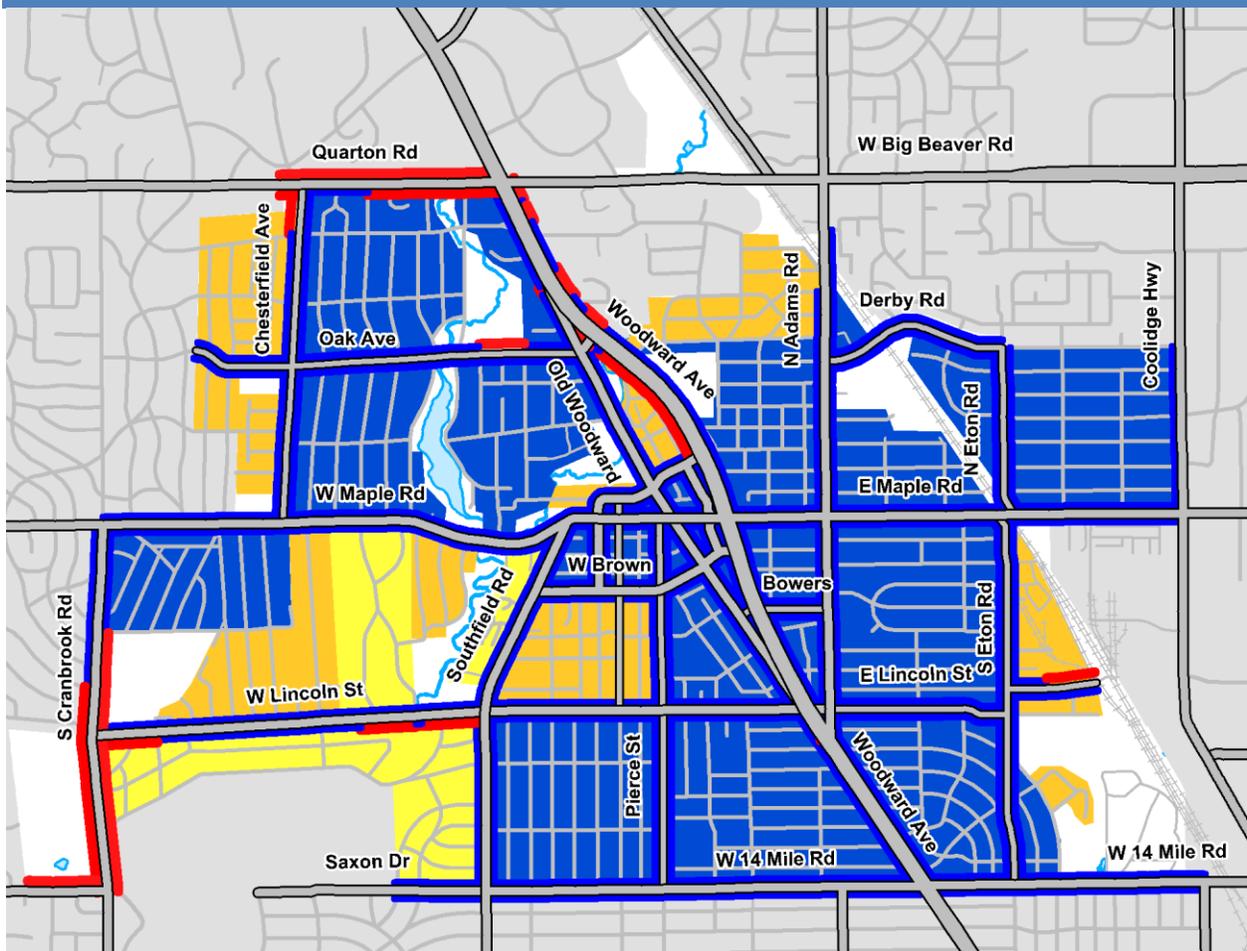
The second priority should be to complete the sidewalk gaps in neighborhoods that already have an existing sidewalk system partially in place.

The third priority should be to complete sidewalks in all neighborhoods.

In general, sidewalks should be installed by developers when constructing or reconstructing buildings or homes and by local city, county or state agencies during a roadway improvement project. Sidewalks should be a minimum of 5' wide. 6' is preferred along Collector roadways and 8' is preferred along Arterial roadways.

Please refer to Fig. 3.2A for a map of the proposed sidewalks.

**FIGURE 3.2A PROPOSED SIDEWALKS**



**Proposed Sidewalks:**

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

APPROXIMATELY 2.5 MILES OF SIDEWALK ARE PROPOSED ALONG PRIMARY ROADS IN THE CITY OF BIRMINGHAM

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

### 3.3 ROAD CROSSING IMPROVEMENTS

#### DESCRIPTION

Road crossing improvements are needed in areas where there is demand to cross by pedestrians and/or bicyclists. These areas occur where a bike route crosses a collector or arterial road, a major bus stop or bus shelter is present, there is a long distance between crosswalks, or there is a high demand based on land use and population density.



There are many different types of countermeasures that can be used to improve the safety and visibility of pedestrians at crosswalks. Traffic speeds, traffic volume, number of lanes and location of the crossing in context to the surrounding land use will dictate what type of crossing improvement is appropriate for a specific location. In some instances the improvements are as simple as adding high visibility crosswalk markings and in others signalization may be needed.

For the most up-to-date guidelines please refer to all Chapters of the *MUTCD* and Chapter 3 & 4 of AASHTO's *Guide for the Planning, Design and Operation of Pedestrian Facilities*.

#### RECOMMENDATIONS

The exact solution for every crossing has not been determined; rather, the location and recommended countermeasure has been identified. Please note that these are initial recommendations and that each crossing needs to be studied further prior to implementation. Please refer to the Network Implementation Plan for specific recommendations on near-term crossing improvements.

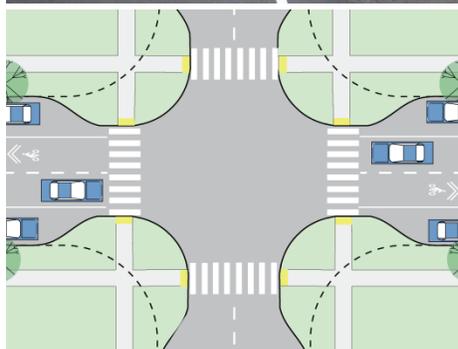
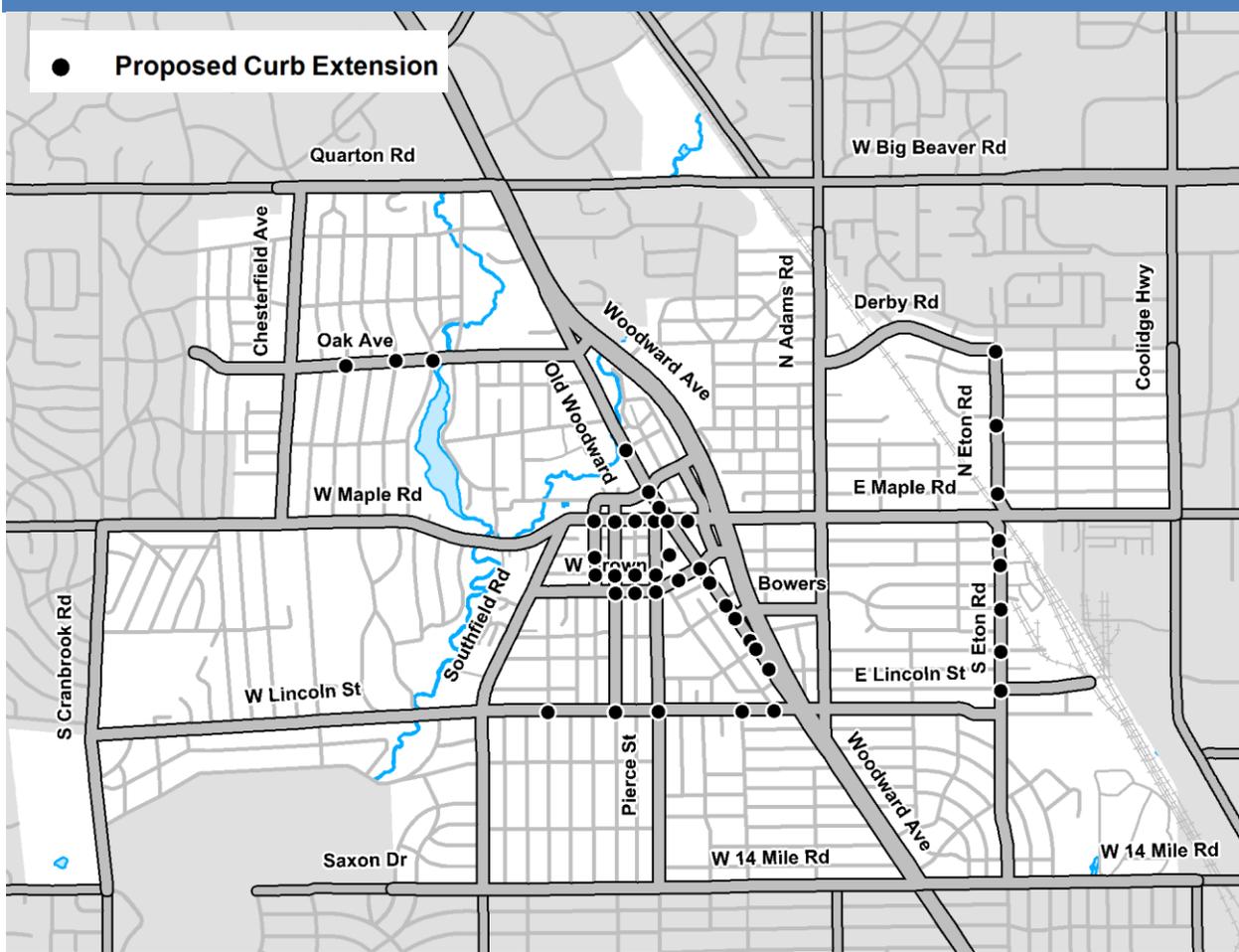
At signalized intersections it is recommended that leading pedestrian signals and signal countdowns be implemented.

Please refer to Fig. 3.3A, 3.3B and 3.3C for maps of the proposed crossing improvements.

#### 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

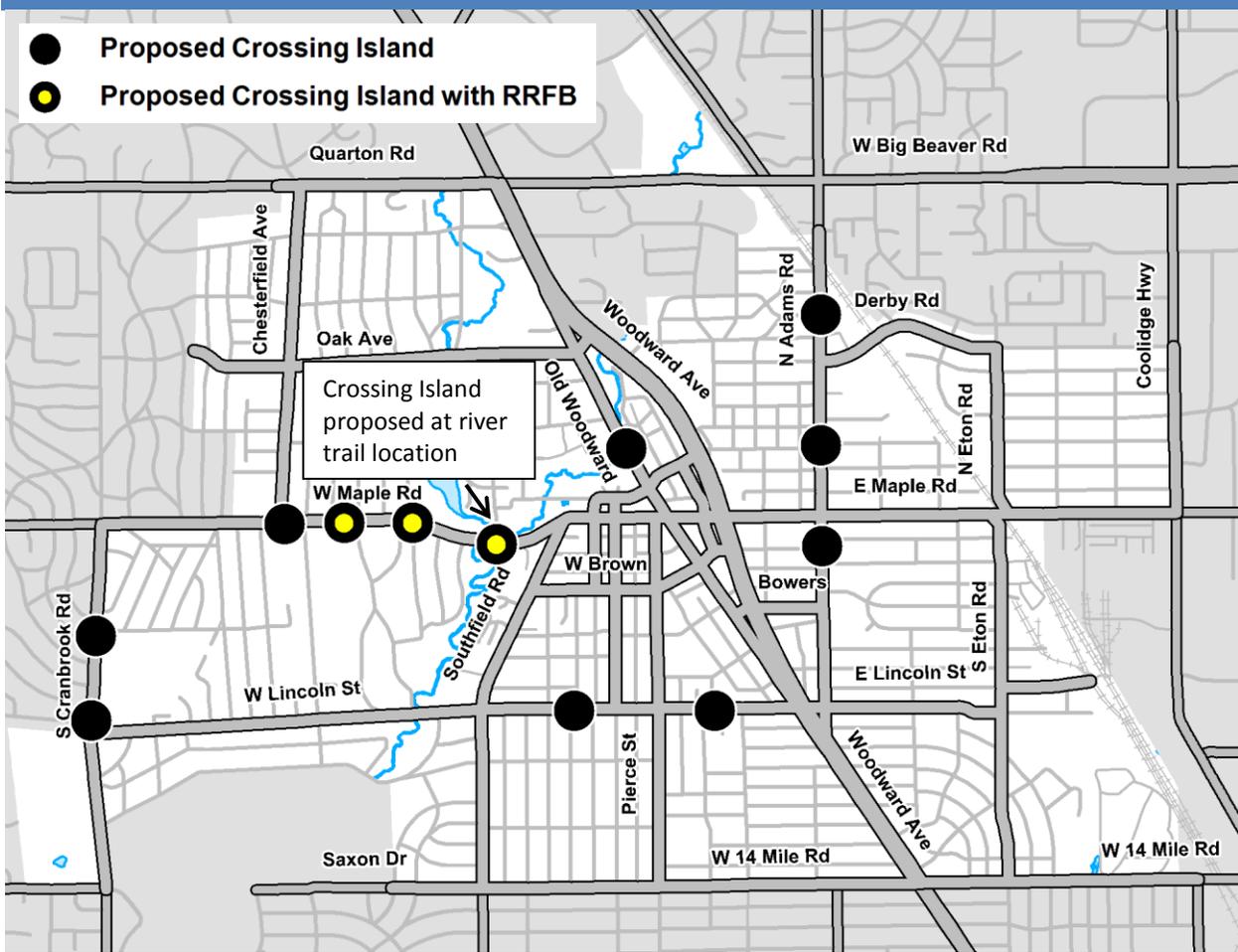
**FIGURE 3.3A CROSSING IMPROVEMENTS – CURB EXTENSIONS**



**42 CURB EXTENSIONS ARE PROPOSED**

- Curb Extensions reduce the effective street width by extending the sidewalk or curb into the parking lane
- Curb Extensions shorten the pedestrian’s crossing distance and increase visibility between pedestrians and motorists
- Curb Extensions create small curb radii that control traffic speeds around corners
- Curb Extensions reduce the effective street width which encourages motorists to drive slower
- When curb extensions are used on a road with bike lanes, the bike lane continues past the curb extension
- Landscaping may be incorporated

**FIGURE 3.3B PROPOSED CROSSING IMPROVEMENTS – CROSSING ISLANDS**



**9 CROSSING ISLANDS ARE PROPOSED**

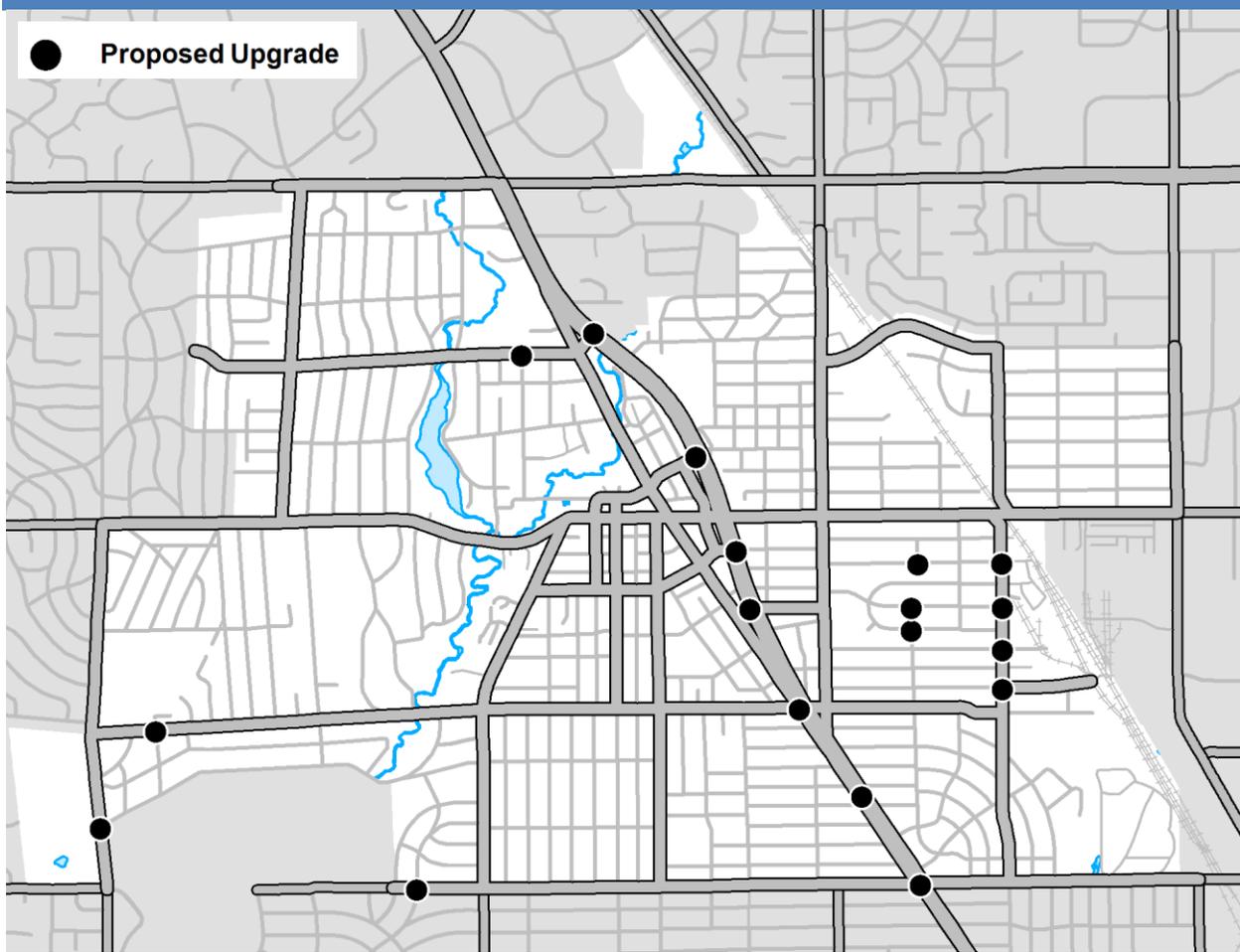
- Crossing Islands create a physical barrier in the middle of the roadway which increase visibility of the crosswalk to motorists, reduce pedestrian crossing distances and encourage motorists to drive slower



**3 CROSSING ISLANDS WITH RECTANGULAR RAPID FLASH BEACONS (RRFB) ARE PROPOSED**

- RRFB are crosswalk signs paired with high intensity LED flashers that alternate and get motorists' attention when activated
- The proposed RRFB would be used in conjunction with crossing islands

**FIGURE 3.3C PROPOSED CROSSING IMPROVEMENTS – UPGRADES**



**High Visibility Crosswalk Markings**



**Curb Ramps with Detectable Warnings**

**18 ROAD CROSSING UPGRADES ARE PROPOSED**

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

Please refer to the Network Implementation Plan and Special Area Concept Plans for more details.

### 3.4 BIKE LANES

#### DESCRIPTION

Bike lanes are a designated space in the roadway for bicyclists to travel with the flow of traffic. Pavement striping, markings and signage are used to delineate the lane. A striped bicycle lane or designated paved shoulder within the roadway is usually the safest place for a cyclist to ride.

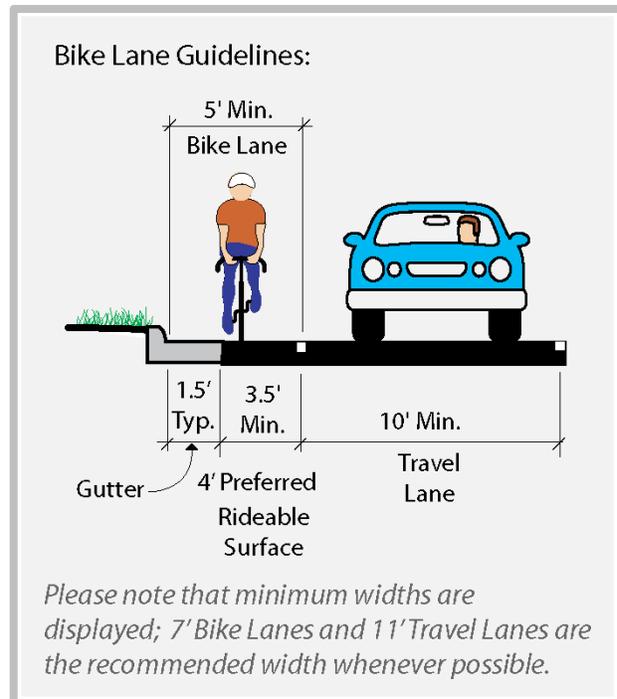


For the most up-to-date guidelines please refer to Chapter 9 of the *MUTCD*, Chapter 4 of *AASHTO's Guide for the Development of Bicycle Facilities*, and the Bike Lane section of *NACTO's Urban Bikeway Design Guide*.

#### RECOMMENDATIONS

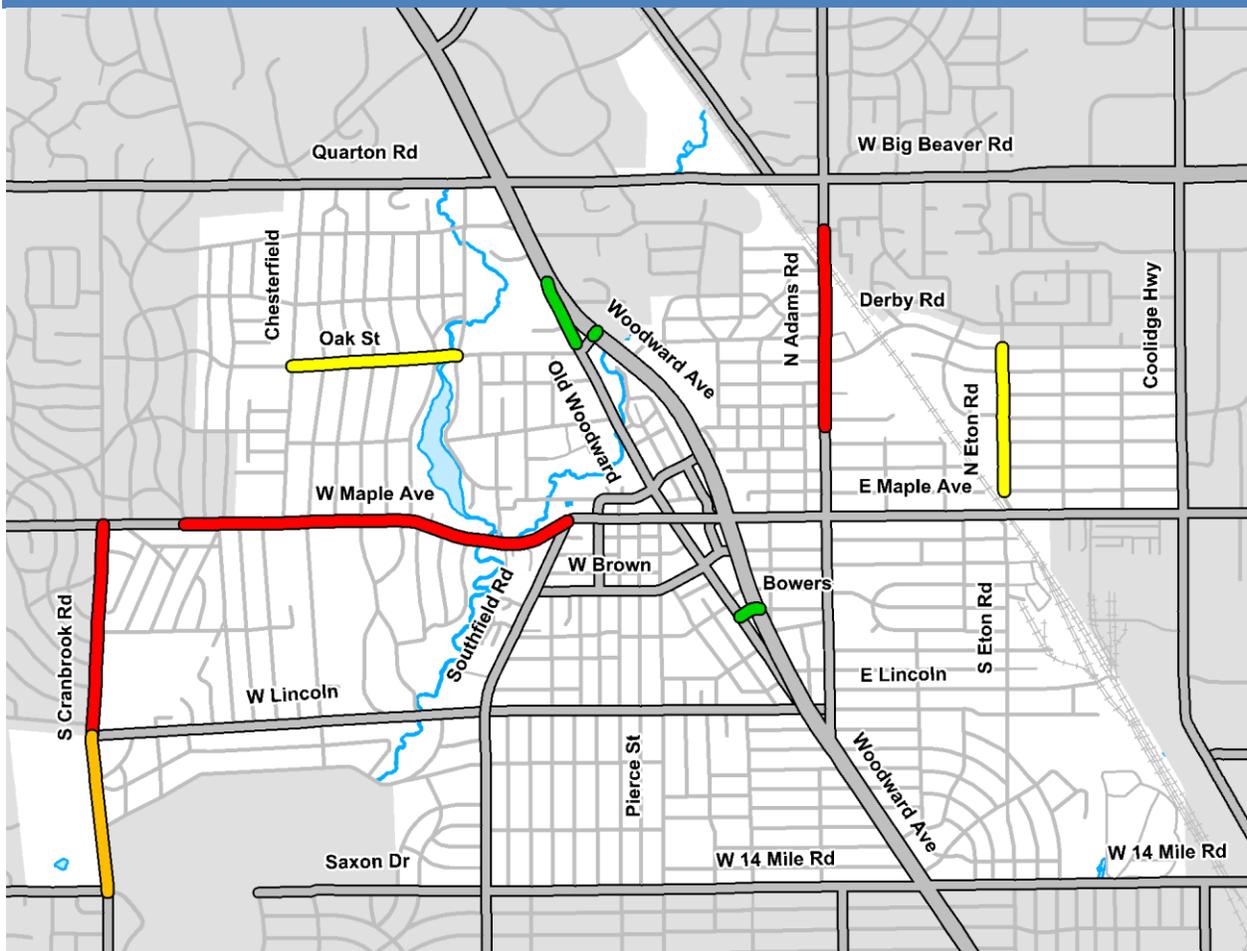
There is potential to add bike lanes on a number of the primary roads in the near future as part of CIP projects and by simply re-striping the roadway. Please refer to the Network Implementation Plan for more details.

For some roadways, the cost to add bike lanes independent of a road reconstruction project would be significant. Thus, to maximize the impact of finite resources, long-term improvements are expected to be implemented when a road is completely reconstructed (not just resurfaced). Eventually, bike lanes should be added to all arterial and collector roadways and significant local roadways. Generally roads with ADTs below 3,500 vehicles per day do not require bike lanes.



Please refer to Fig. 3.4A for a map of the proposed bike lanes.

**FIGURE 3.4A PROPOSED NEAR-TERM BIKE LANES**



**Proposed Bike Lanes**

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

APPROXIMATELY 3.7 MILES OF NEW BIKE LANES ARE PROPOSED

Web Survey Results:

- Around 20% of respondents currently bike to work and/or the store on a weekly basis
- Around 68% of respondents 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
- Around 58% would be comfortable riding a bike in a bike lane on a minor road
- If the appropriate facilities were constructed 69% of respondents would be interested in bicycling to work and/or for errands

### 3.5 BUFFERED BIKE LANES

#### DESCRIPTION

Buffered bike lanes are conventional bike lanes paired with a designated space separating the bicycle lane from the motor vehicle lane. Similar to bike lanes, bicyclists travel with the flow of traffic. Pavement striping, markings and signage are used to delineate the lane.

When the buffer area between the bike lane and motor vehicle lane has a physical barrier, such as curbs, the facility is called a cycle track.

For the most up-to-date guidelines please refer to Chapter 9 of the *MUTCD*, Chapter 4 of AASHTO's *Guide for the Development of Bicycle Facilities*, and the Buffered Bike Lane section of NACTO's *Urban Bikeway Design Guide*.

#### RECOMMENDATIONS

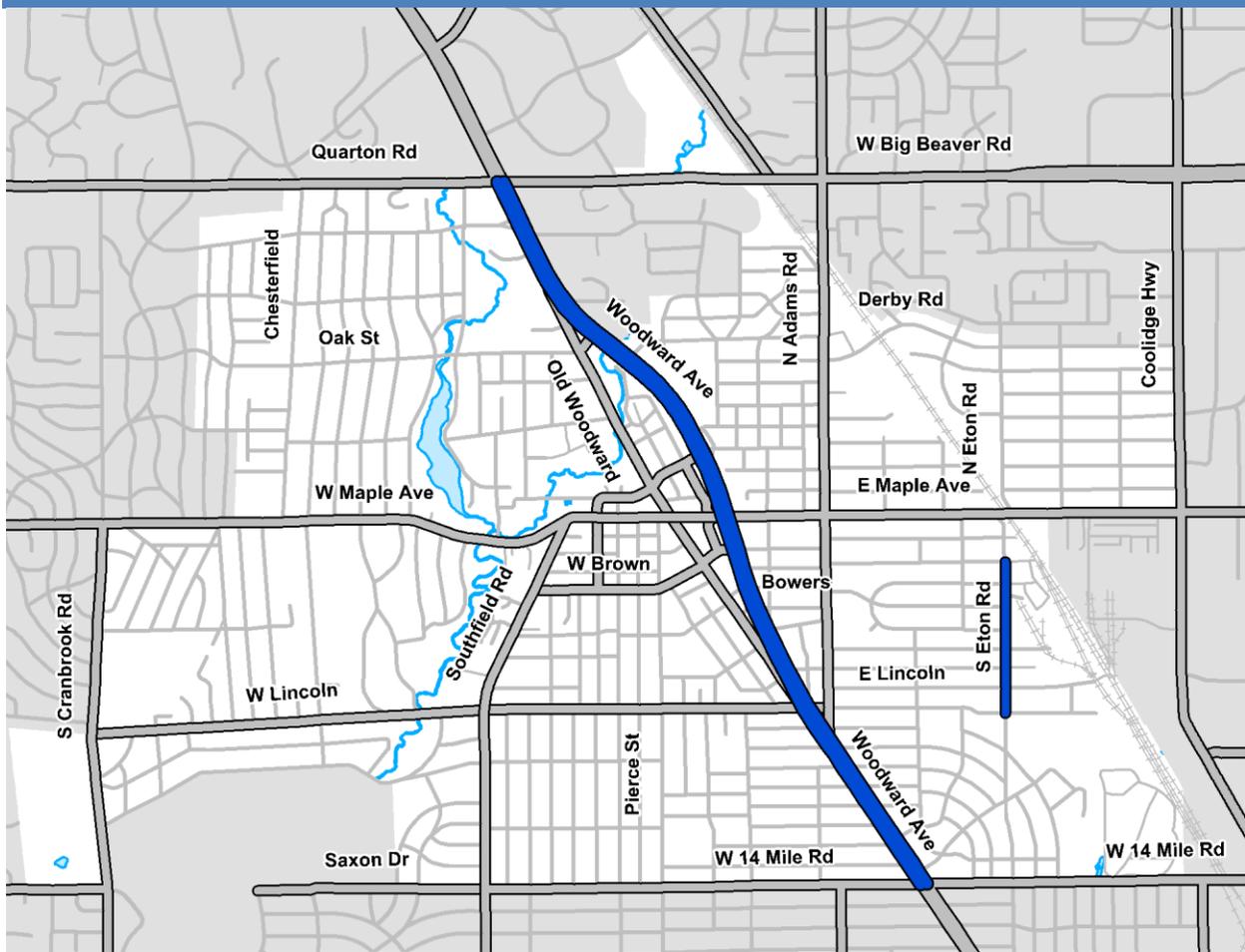
On S. Eton Road between W. Maple Road and W. Lincoln Street there is potential to add buffered bike lanes to the west side of the road by removing on-street parking from that side of the street. Due to the proximity of the Rail District, parking would remain on the east side of the street. See the Network Implementation Plan for more details.

There is potential to enhance the bicycle and pedestrian environment along Woodward Avenue. Bike lanes could be added to the service drive with a curbed buffer area between the bike lane and Woodward Avenue. Please refer to the Special Area Concept Plans for more details.

Please refer to Fig. 3.5A for a map of the proposed buffered bike lanes.



FIGURE 3.5A PROPOSED NEAR-TERM BIKE LANES



**Buffered Bike Lanes**  
— Proposed

APPROXIMATELY 2.8 MILES OF BUFFERED BIKE LANES ARE PROPOSED

Web Survey Results:

- Around 75% of respondents would be comfortable riding a bike on a cycle track

### 3.6 SHARED LANE MARKINGS

#### DESCRIPTION

Shared Lane Markings are used to indicate to bicyclists a recommended lane position and to indicate to motorists to expect bicycles. They are used on roads with speeds of 35 mph or less. Shared lane markings may be used to help position bicyclists a safe distance from parked cars (so that they do not run into opening car doors). They are also used in conjunction with bike lanes where the bike lane is discontinued for a stretch of roadway due to limited road width.



Colored Shared Lane Markings are Shared Lane Markings placed on top of a continuous green lane. They should be used in areas where a higher level of visibility is desired.



For the most up-to-date guidelines please refer to Chapter 9 of the *MUTCD*, Chapter 4 of AASHTO's *Guide for the Development of Bicycle Facilities*, and the Bikeway Signing & Marking section of NACTO's *Urban Bikeway Design Guide*.

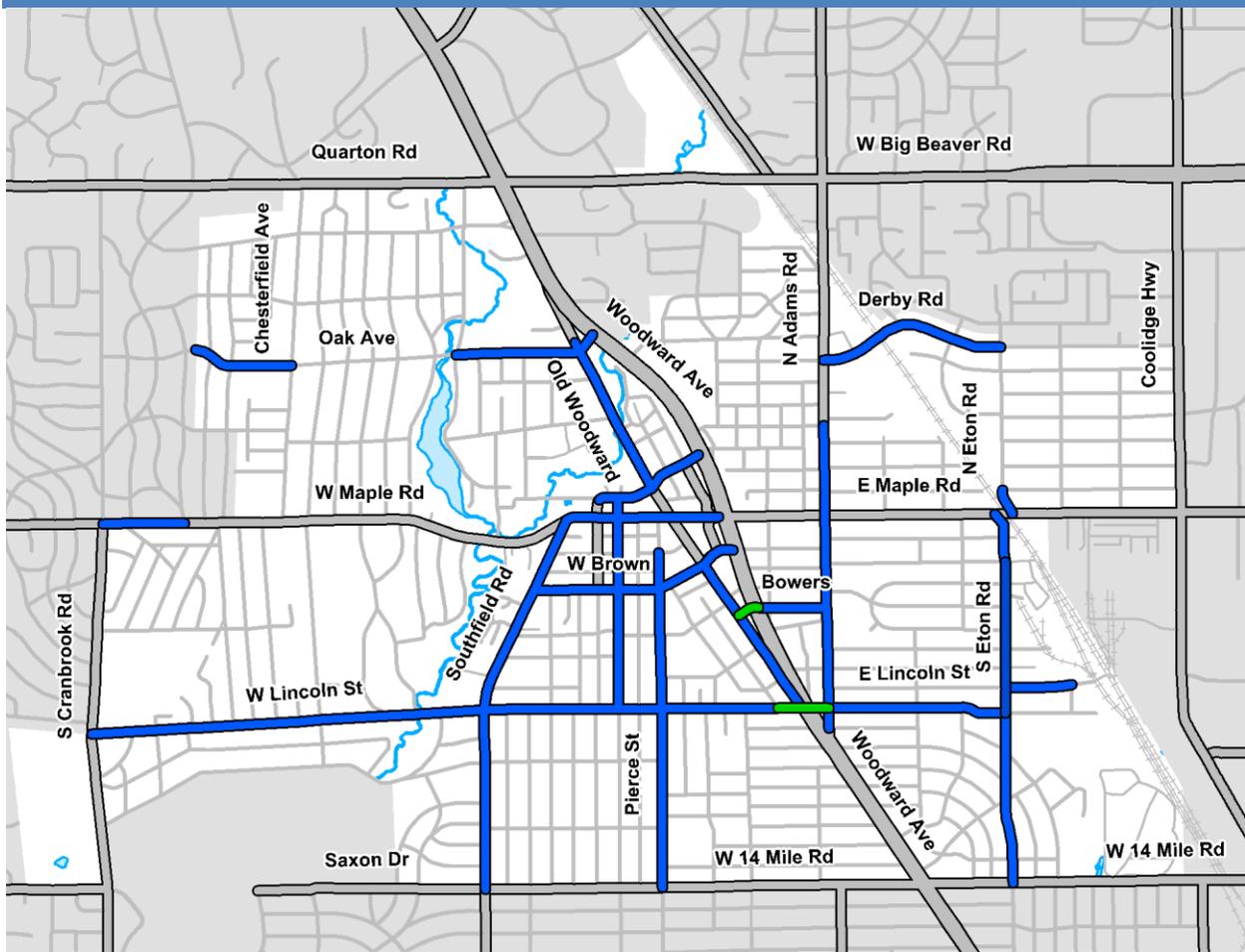
#### RECOMMENDATIONS

Due to the desire to keep on-street parking, Shared Lane Markings are proposed on most collector roads and some arterial roads. Please refer to the Network Implementation Plan for more details.

Colored Shared Lane Markings are proposed on segments of Bowers Street and E Lincoln Street where they cross Woodward Avenue. Please refer to the Network Implementation Plan and Special Area Concept Plans for more details.

Please refer to Fig. 3.6A for a map of the proposed shared lane markings.

FIGURE 3.6A PROPOSED SHARED LANE MARKINGS



**Shared Lane Markings**

-  Proposed Shared Lane Markings
-  Proposed Colored Shared Lane Markings

APPROXIMATELY 10.7 MILES OF NEW SHARED LANES MARKINGS ARE PROPOSED AND 0.2 MILES OF COLORED SHARED LANE MARKINGS ARE PROPOSED

### 3.7 NEIGHBORHOOD CONNECTOR ROUTES



#### DESCRIPTION

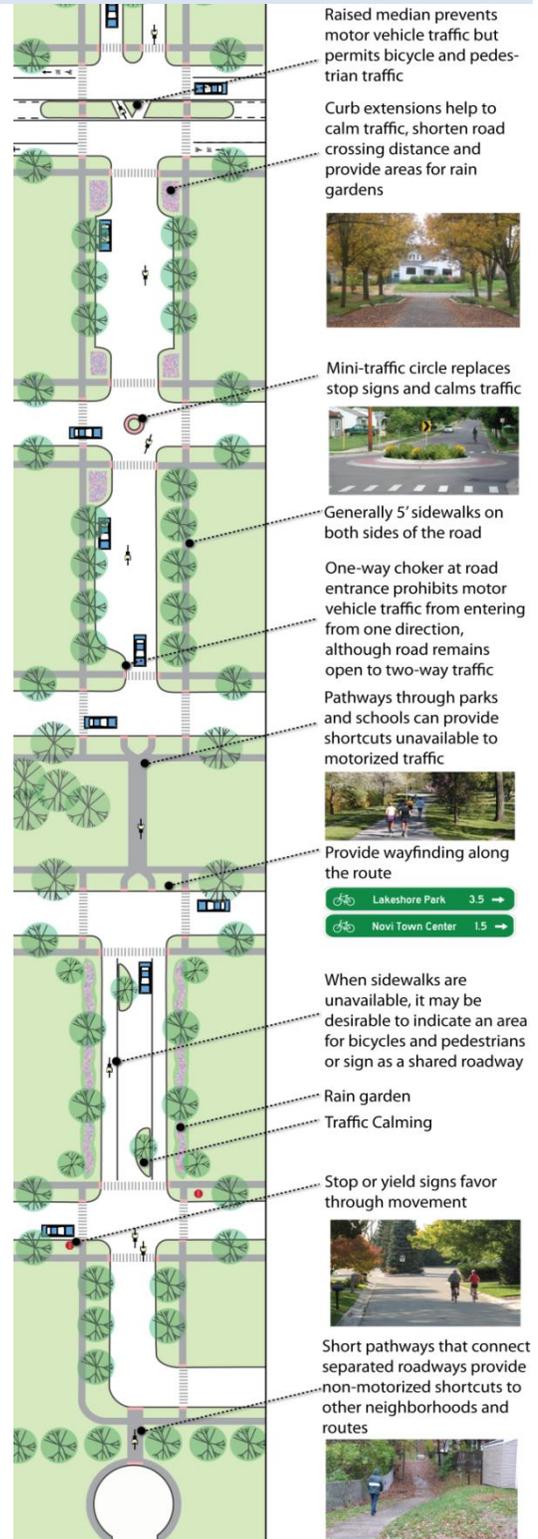
Neighborhood Connector Routes, also known as Bicycle Boulevards, are primarily located on low speed, low volume local roads and connecting pathways. They link neighborhoods to parks, schools and commercial areas. Signs provide wayfinding by noting direction and distance to key destinations. Elements such as traffic calming, public art, rain gardens and historic features can be added to enhance the routes. These routes appeal to families, children and people who are less comfortable walking and bicycling along a major roadway.

For the most up-to-date guidelines please refer to Chapter 9 of the *MUTCD*, Chapter 4 & 5 of AASHTO's *Guide for the Development of Bicycle Facilities*, and the Bike Route Wayfinding section of NACTO's *Urban Bikeway Design Guide*.

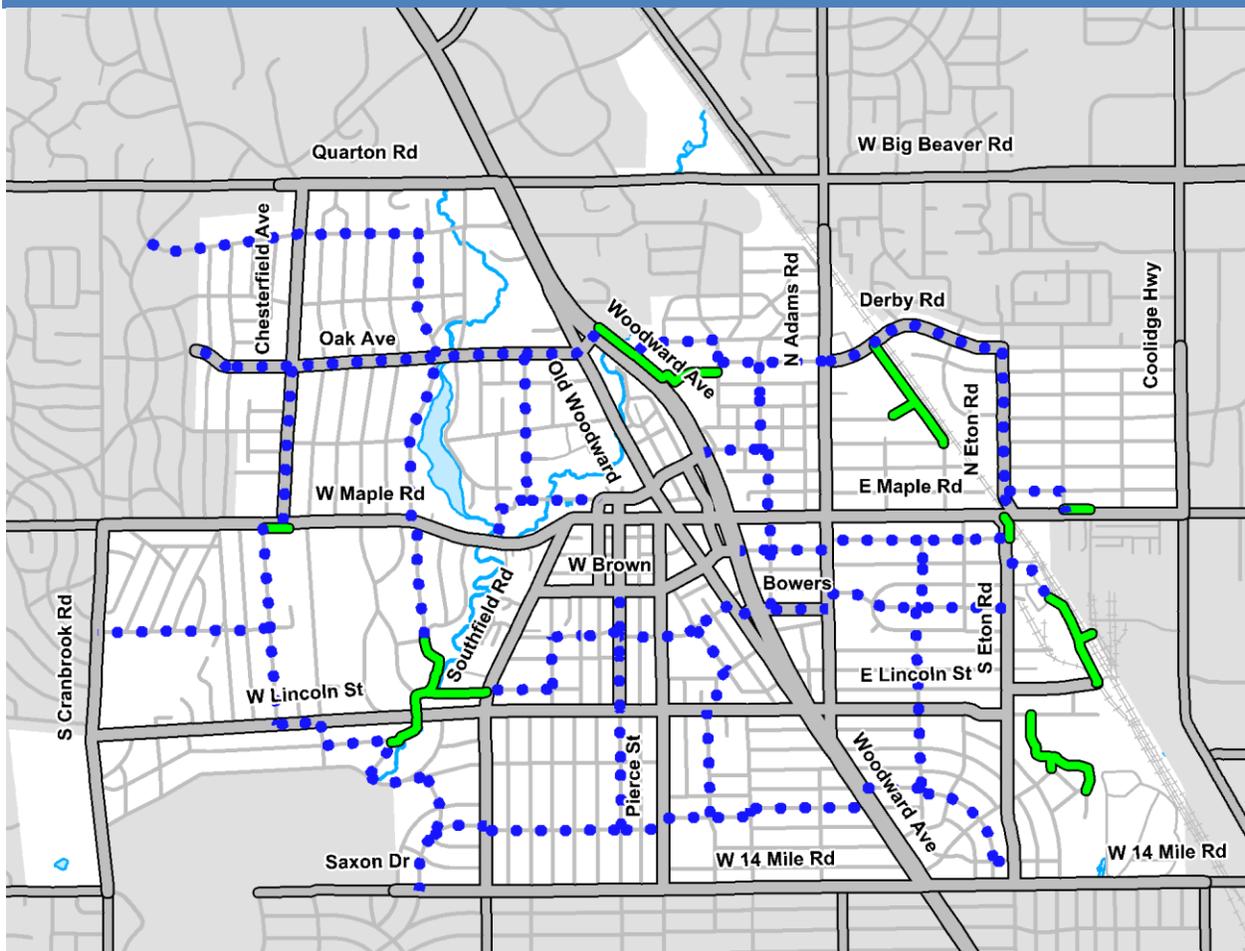
#### RECOMMENDATIONS

Neighborhood Connector Routes should be developed over time. Initial improvements include wayfinding signage and crossing improvements where the route intersects a major roadway. Traffic calming is added only if it is necessary. Environmental and aesthetic improvements are implemented based on community input and available budgets. Please refer to the Network Implementation Plan for more details.

Please refer to Fig. 3.7A for a map of the proposed neighborhood connector routes



**FIGURE 3.7A PROPOSED NEIGHBORHOOD CONNECTOR ROUTES**



**Proposed Neighborhood Connector Routes**

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

APPROXIMATELY 15.4 MILES OF NEIGHBORHOOD CONNECTOR ROUTES AND 2.25 MILES OF PAVED OFF-ROAD TRAILS ARE PROPOSED

Web Survey Results:

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

### 3.8 PEDESTRIAN & BICYCLE WAYFINDING

#### DESCRIPTION

Careful and thoughtful use of signage can greatly enhance a user’s experience of a community’s non-motorized facilities. Several important considerations for the design and use of signage include:

- Keep signage consistent in design along the length of the route to establish a sense of continuity and character
- Signs should be clearly legible, understandable and be made of fade proof and weather-proof surface materials and inks
- Signs should be durable and require minimal maintenance
- Signs should be paced to prevent obstruction or collision along the route

#### BICYCLE ROUTE GUIDE SIGNS

These are placed along the route to indicate a designated bicycle route to specific destinations. The D1-1c signs are about the size of a street name sign and are typically placed on the same post as a street name sign. The D11-1c signs are placed at intervals along the route to inform users they are on the route. These signs also act to promote bicycle use to non-cyclists who may have never considered bicycling to the destinations listed on the signs.



*D1-1c - Used where the route changes direction, they provide information on the direction, destination and*



*D11-1c – Used along the route, they confirm the route and destination*

#### BICYCLE ROUTE IDENTIFICATION SIGNS

Some bike routes are significant enough to warrant a name or numerical designation. Typically these are regional routes or “trails” that are comprised of many different facility types. Bike Route Identification Signs establish a unique identification for a bike route. The M1-8a signs are typically used with auxiliary plaques that indicate the direction of travel and any changes in direction of the route.

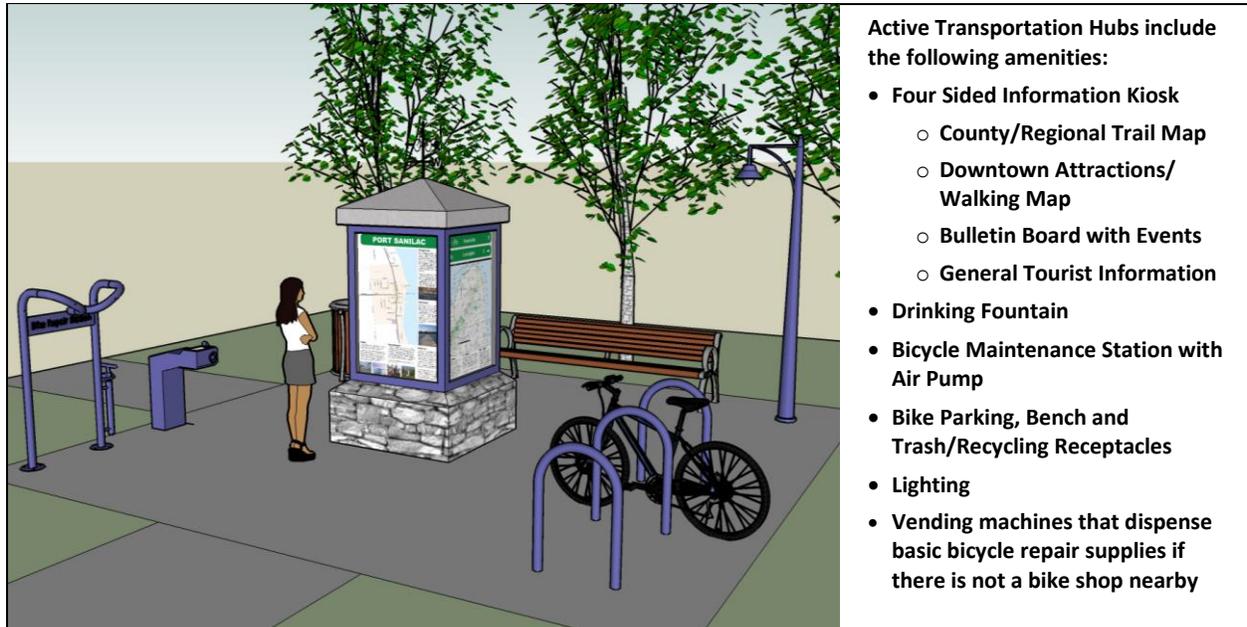


*M1-8a – These have a space at the top for a unique logo and a name may also be used instead of a number*

*\*If a route is for bicycle and pedestrians both symbols should be used on the sign*

## ACTIVE TRANSPORTATION HUBS

Active transportation hubs are wayfinding kiosks that serve as orientation and resource centers for multi-modal trips. They help those who are already walking and bicycling find community resources and introduce people to new walking and bicycling opportunities. They are typically located in city centers or significant parks with major non-motorized routes. They are most effective when placed in high profile locations. When used consistently throughout a region they become focal points for navigation and their locations are shown on regional maps.



## RECOMMENDATIONS

- Place bicycle route guide signs along the proposed neighborhood connector routes system to indicate designated routes to specific destinations
- Provide wayfinding signage for the existing Rouge Trails
- Provide Active Transportation Hubs at key locations around town such as Booth Park, Millrace Park, City Hall and in the Rail District

### 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

### 3.9 NEIGHBORHOOD GREENWAY

#### DESCRIPTION

A Neighborhood Greenway is a non-motorized route that connects major destinations, links up regional connections and provides the organizing framework for a multi-modal system.

Neighborhood Greenways function as premium bicycle and pedestrian routes. Like Neighborhood Connector Routes, Neighborhood Greenways are primarily located on low speed, low volume roads and connecting pathways. Signs provide wayfinding by noting direction and distance to key destinations. If the route is significant enough it may even be designated with special branding and signage. These routes generally appeal to families, children and people who are less comfortable walking or bicycling along major routes.

Neighborhood Greenways typically incorporate sustainable design elements such as rain gardens, bioswales and native plantings. They may also incorporate pedestrian amenities such as art installations, benches, interpretive signs, community vegetable gardens and ornamental gardens. For many communities where an off-road trail is not available or feasible, a Neighborhood Greenway provides similar amenities but within the existing right-of-way.

For the most up-to-date guidelines please refer to Chapter 9 of the *MUTCD*, Chapter 4 & 5 of AASHTO's *Guide for the Development of Bicycle Facilities*, and the Bikeway Signing & Marking section of NACTO's *Urban Bikeway Design Guide*.



#### RECOMMENDATIONS

Once the proposed neighborhood connector routes are implemented, the City should evaluate if any of the routes should be designated as Neighborhood Greenways and receive further enhancements.

CITY OF BIRMINGHAM MULTIMODAL TRANSPORTATION PLAN   
**PHYSICAL ENVIRONMENT RECOMMENDATIONS**

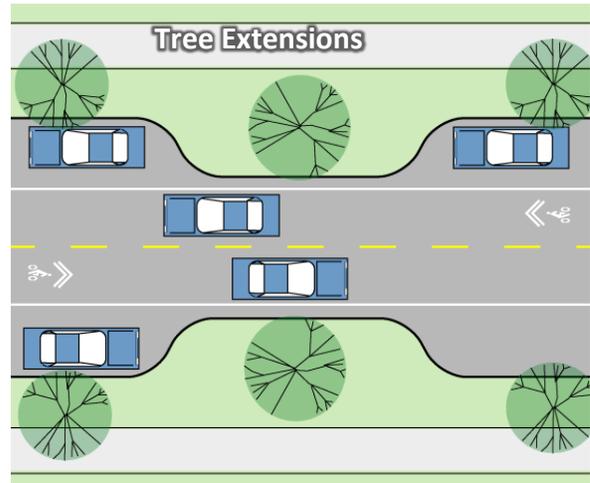
**3.10 TREE EXTENSIONS**

**DESCRIPTION**

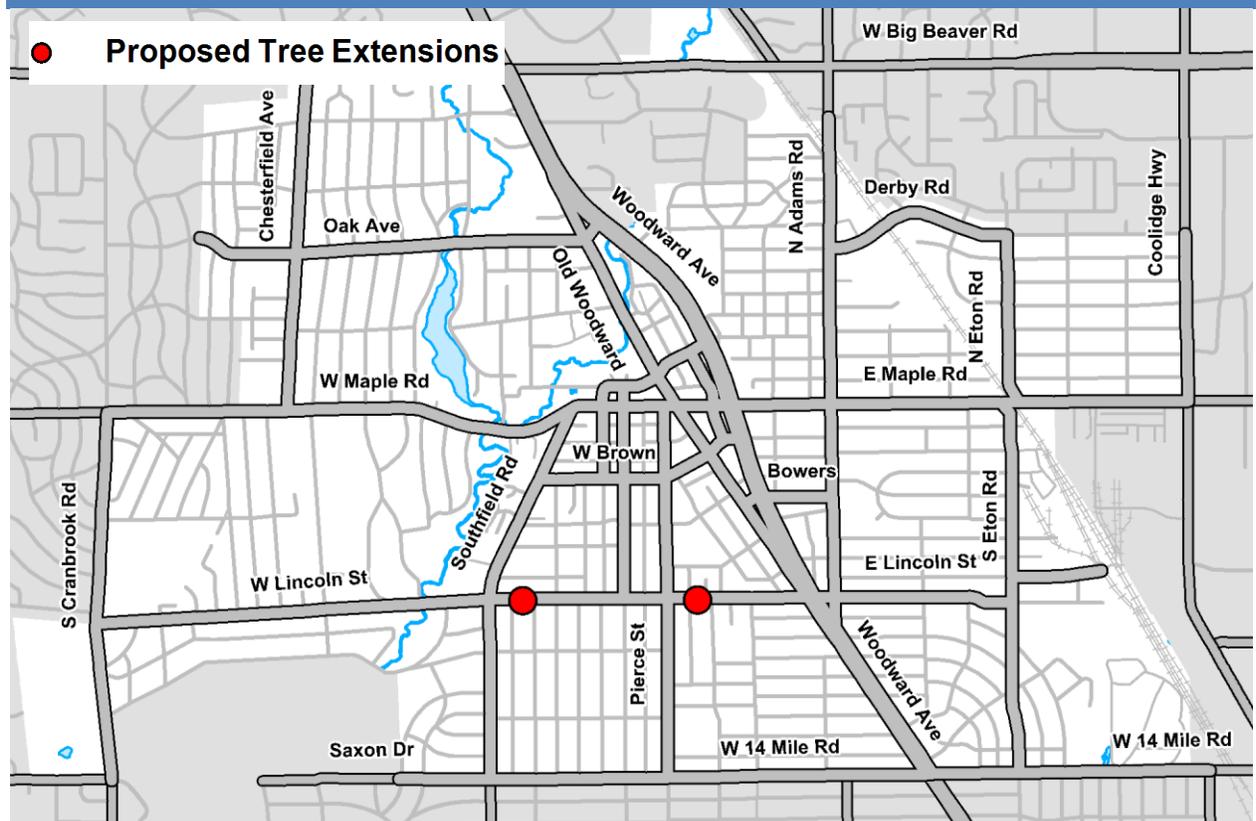
Tree extensions reduce the effective street width by extending the curb line out into the parking lane. They create a physical barrier in the roadway which encourages motorists to drive slower. Tree extensions are built very similar to curb extensions but include landscaping and canopy trees in place of the pedestrian crossing.

**RECOMMENDATIONS**

Two tree extensions are proposed on Lincoln Street to help calm traffic between Southfield Road and Woodward Avenue.



**FIGURE 3.10A PROPOSED TREE EXTENSIONS**



### 3.11 BICYCLE PARKING

#### DESCRIPTION

Bicycle parking needs to be visible, accessible, plentiful and convenient. If any of these criteria are not met, there is a good chance cyclists will not use the facilities and will park their bike wherever they feel it will be safest.

**UNCOVERED BICYCLE PARKING** – Uncovered bicycle racks are the primary bike parking approach where people are expected to park their bikes for only a few hours. Generally the “U” design is considered the best model. These types of racks should be located on every block where there is retail within a commercial district. Recently, the City put in an extensive number of U racks in the downtown.

**ENCLOSED & SECURED BICYCLE PARKING** – Enclosed and secured bicycle parking is best for areas where bikes are kept for extended periods of time, such as apartment buildings and near places of employment. These facilities are generally placed within the existing parking structures and may come with extra bicycle parking amenities. Bicycle parking is generally provided at a fee to the user.

**TEMPORARY BICYCLE PARKING** – Temporary bicycle parking consists of movable racks that are placed within an open area of the sidewalk or take the place of on-street motor vehicle parking. Since these racks are temporary, they can be experimented with and moved as needed. They can also be used on a seasonal basis and can be removed during the winter or placed in different locations for large events.

**BICYCLE REPAIR STATIONS** - Developing infrastructure that supports bicycling is important to encourage and extend bicycling trips in the community. Initiatives should be started to spread bicyclists’ common needs beyond the bike shop. Bicycle repair stations that include basic tools and air pumps should be located in areas with high bicycle traffic such as in major parks and in downtown areas.



---

## RECOMMENDATIONS

In 2012, the City of Birmingham installed 45 new uncovered bicycle U racks in the downtown. In addition to these enhancements the following improvements have been recommended:

- Two bicycle racks should be placed on each proposed curb extension in the downtown
- Bicycle racks should be placed on a hard surface with ample lighting and high visibility to discourage theft and vandalism
- Bicycle racks should be placed to avoid conflicts with pedestrians and when installed in public spaces there needs to be at least 5 feet of clear sidewalk space for pedestrians
- Bicycle racks should be covered whenever there is opportunity to do so
- Seasonally, temporary bike racks should be placed in the downtown where there are large curb extensions or where space is available adjacent to outdoor dining decks
- Provide temporary staffed bike racks during special events to encourage bicycling and provide a secure environment for bikes
- Provide enclosed and secured parking in downtown parking decks
- Provide amenities such as compressed air and basic public bike fix stations at key locations around town

Please refer to the Network Implementation Plan and Specific Area Concept Plans for more details.

### Web Survey Results:

- Around 86% of respondents feel that bicycle parking is very important or somewhat important to making future walking and bicycling trips actually happen

### 3.12 TRANSIT FACILITY AMENITIES

#### DESCRIPTION

When developing a multi-modal plan it is important to consider transit users because at some point the transit user becomes a pedestrian. Many times, people who use transit do not own an automobile, so walking and bicycling are their main forms of transportation. It is important to not only to provide safe and convenient ways to access transit but also to provide infrastructure and amenities at the transit stop.



At the very minimum bus stops should provide a concrete pad so wheelchair users can safely access the bus stop.

Super Stops are essentially bus stops with additional amenities such as benches, shelters, maps and schedules, bus pull-off area and lighting. Since there are additional amenities, the stops will have a larger draw area. Generally these occur where a bicycle and pedestrian route intersects a bus route and in areas of high ridership.

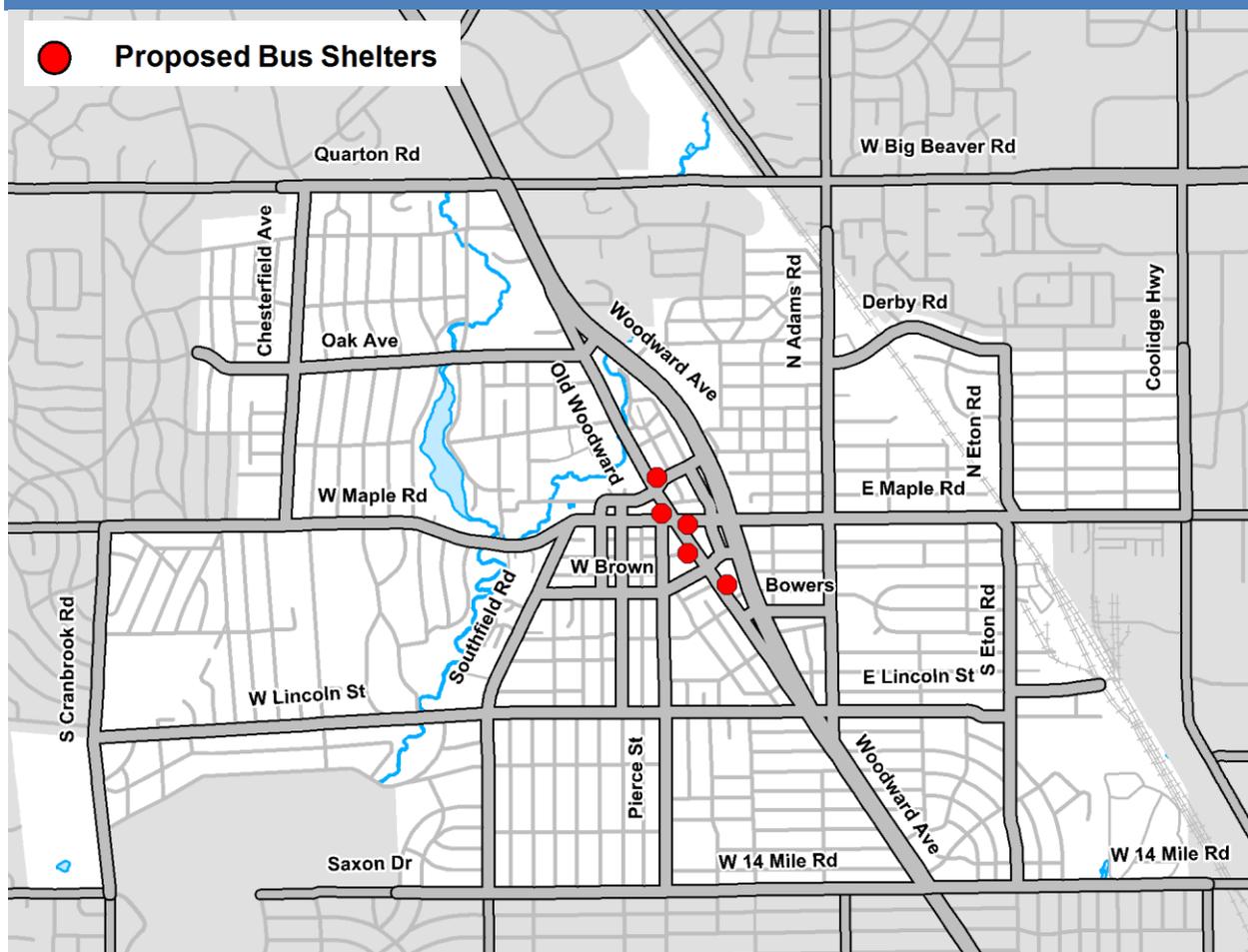


#### RECOMMENDATIONS

- At a minimum, all bus stops should provide a concrete pad so wheelchair users can safely access the bus stop
- Consistent bus stop signs should be used throughout the City
- In areas with a high number of people boarding or exiting buses, provide additional amenities such as shelter, lighting, benches, route maps and schedules

Please refer to the Special Area Concept Plans for more information.

FIGURE 3.12A PROPOSED DOWNTOWN BUS SHELTERS



5 BUS SHELTERS ARE PROPOSED IN THE DOWNTOWN

Web Survey Results:

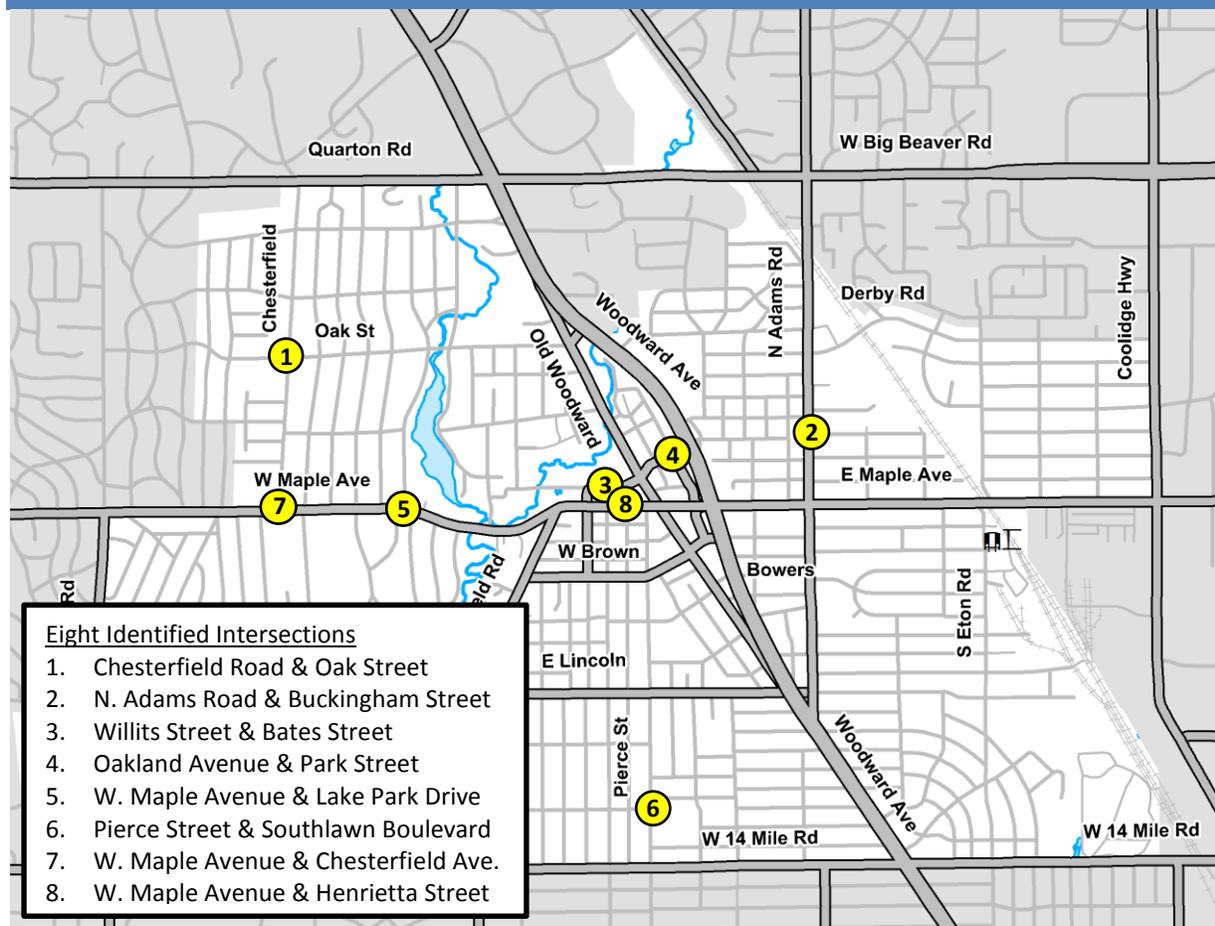
- Around 43.7% of respondents who do not use transit said they would be encouraged to reconsider taking transit if a shelter was located at the bus stop
- 100% of the respondents who currently ride SMART said that bus shelters are very important or somewhat important to the comfort and convenience of their trip

**3.13 INTERSECTION RECOMMENDATIONS**

**DESCRIPTION**

The City of Birmingham identified eight signalized intersections that may benefit from operational improvements to better balance the needs of transit vehicles, motorists, pedestrians and bicyclists. Existing conditions analysis was conducted at each intersection, which are shown on the map below and selected by the City of Birmingham. Recommendations were developed for each intersection and include potential intersection improvements and next steps to implementing these improvements. This section of the plan serves as a summary of both the existing conditions and recommendations. Additional details and the full reports can be found in Appendix E.

**FIGURE 3.13A INTERSECTIONS UNDER EVALUATION**



---

**EXISTING CONDITIONS**

The intersections on the preceding page share some common characteristics, as described below. Additional details on the existing conditions at each of the study intersections are provided in Appendix E.

1. All of the intersections are signalized and pre-timed, or fixed, meaning that the signal continually runs on the same pattern of timings and the vehicle and pedestrian indications (i.e. a green light or white walking person) are provided during each signal cycle regardless of whether vehicles or pedestrians are present.
  - Pre-timed signals are beneficial to pedestrians because they are not required to push a button to receive the WALK indication (i.e. white walking person).
  - Pre-timed signals can be inefficient for motor vehicles, especially during off-peak times. For instance, the minor street could receive the green indication when there are no cars present. These off-peak inefficiencies are addressed by putting the signal in flashing operation during off-peak hours, typically overnight, as seen at many of these signals. Flashing operation usually means the major street receives a flashing yellow indication, while the minor street receives a flashing red indication, operating like a two-way stop. In some cases all approaches may receive a flashing red indication and the signal will operate like an all-way stop.
2. Most intersections have crosswalks on all legs, or all but one leg, of the intersection.
3. All intersections have pedestrian WALK (white walking man), flashing DON'T WALK (flashing yellow hand) or DON'T WALK (solid yellow hand) indications and most have countdown timers, which indicate to the pedestrians how much time they have remaining to cross the street. Countdown timers typically decrease the number of pedestrians remaining in the crosswalk at the onset of the DON'T WALK indication, but increase the number of pedestrians violating the flashing DON'T WALK indication.
4. No bicycle facilities (e.g. striped bike lane, shared lane marking, etc.), indications (bicycle signal), or Accessible Pedestrian Signal accommodations (as described in the Americans with Disabilities Act) are provided at the study intersections.

## RECOMMENDATION INTERSECTON ALTERNATIVES

The following table outlines one or more alternatives each intersection. For each alternative the potential improvements are noted in the table. Prior to any physical changes to the intersections, a comprehensive engineering study will be conducted for each intersection to identify the preferred alternative and refine the proposed improvements.

**FIGURE 3.13B RECOMMENDED INTERSECTION IMPROVEMENTS**

	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
<b>1. Oak &amp; Chesterfield</b>													
<i>Roundabout Alternative</i>					X	X							X
<i>Signalized Alternative</i>	X							X			X	X	X
<i>Stop-Controlled Alternative</i>	X					X							X
<b>2. Adams &amp; Buckingham</b>													
<i>Signalized Alternative</i>			X					X		X	X	X	
<i>Stop-Controlled Alternative</i>		X				X							
<b>3. Willits &amp; BatesM</b>													
<i>Signalized Alternative</i>	X							X	X	X			X
<i>Stop-Controlled Alternative</i>	X					X							
<b>4. Oakland &amp; Park</b>													
<i>Signalized Alternative</i>	X			X				X	X		X	X	X
<b>5. Maple &amp; Lake Park</b>													
<i>Non-Road-Diet Alternative</i>			X				X	X		X		X	
<i>Signalized Road-Diet Alt.</i>		X	X	X			X	X		X	X	X	
<i>Stop-Controlled Road-Diet Alt.</i>		X		X		X							
<b>6. Pierce &amp; Southlawn</b>													
<i>Signalized Alternative</i>	X							X			X	X	
<i>Stop-Controlled Alternative</i>		X	X			X							
<b>7. Maple &amp; Chesterfield</b>													
<i>Non-Road Diet Alternative</i>							X	X		X		X	
<i>Road-Diet Alternative</i>		X		X			X	X		X	X	X	
<b>8. Maple &amp; Henrietta</b>													
<i>Signalized Alternative</i>	X							X	X	X			
<i>Stop-Controlled Alternative</i>	X					X							X

---

## OVERVIEW OF RECOMMENDED INTERSECTION IMPROVEMENT TREATMENTS

A brief description of each improvement identified in Figure 3.13B, Recommended Intersection Improvements, is provided on the following pages. Additional details including benefits, limitations and next steps are outlined in Appendix E.

### GEOMETRIC IMPROVEMENTS:

---

- **Adding curb extensions** shortens the crossing distance for pedestrians, improves visibility between pedestrians and motorists, adds more pedestrian queuing space and may reduce vehicle turning speed.
- **Adding a median island** provides refuge for pedestrians crossing the road. A median island allows the pedestrian to cross in two stages, which increases crossing opportunities.
- **Adding a crosswalk** improves pedestrian connectivity and decreases pedestrian delay. In many cases, adding a crosswalk does not affect signal timing and is a very cost-effective way to improve pedestrian conditions at an intersection.

### OPERATIONAL IMPROVEMENTS:

---

- **Implementing a road diet** may slow traffic and reduces pedestrian crossing distance and can create space for a bike lane or parking lane, which provides an additional buffer from traffic for pedestrians. (See “Additional Details on Implementing a Road Diet” below).
- **Converting an intersection to a roundabout** may reduce delay and potential conflicts for motorists at the intersection.
- **Removing a signal** and converting the intersection to a two- or all-way stop-controlled intersection may reduce delay to all users. At locations where signals are to be removed, geometric improvements may be required to provide pedestrian and bicyclists safer opportunities to cross roadways. Before removing the traffic signal, the intersection should be adjusted to operate in flash operation 24-hours per day as a pilot to test removing the signal. (See “Additional Details on Removing a Signal” below)

### SIGNAL IMPROVEMENTS:

---

- **Adding countdown timers** informs pedestrians of the remaining time they have to cross the street and may reduce conflicts between motorist and pedestrians
- **Updating pedestrian times** includes adding a pedestrian buffer time and changing the pedestrian change interval (flashing DON'T WALK time) to allow more time for pedestrians to cross the street.

- **Adding leading pedestrian intervals** allows pedestrians to get a head start in crossing the intersection before conflicting turning vehicles are released.
- **Shortening the signal cycle length** reduces pedestrian and motorist delay where appropriate.
- **Adding/Extending flashing operation** reduces delay for all users at times of day when demand is low and can be added or implemented at more hours of the day at locations where traffic is high during peak hours and low during the remaining hours of the day. At locations where signals operate in flash, geometric improvements may be required to provide pedestrians and bicyclists safer opportunities to cross roadways.
- **A semi-actuated signal** responds to traffic on the minor street and pedestrians crossing the major street to reduce delay when traffic volumes on the minor street are relatively low. During peak hours, the minor streets will actuate each cycle (i.e. at least every 80 seconds), creating gaps for motorists exiting adjacent side streets.
- **Other improvements include** widening a median island to provide additional queuing space for pedestrians, changing the signal phasing to better accommodate all users, and implementing safe routes to school strategies to improve operations during student arrival and dismissal periods.

---

#### ADDITIONAL DETAILS ON IMPLEMENTING A ROAD DIET:

This plans recommendations the consideration of a road diet on Maple Avenue between Lake Park Drive and Chesterfield Avenue and on Oakland Avenue near Park Avenue:

- **On Maple Avenue**, a 4 to 3 lane conversion is recommended, which reduces traffic to one lane in each direction and adds either a two-way-left-turn lane or a median island with left-turn pockets where needed. This conversion reallocates the remaining roadway width to add a bicycle lane in each direction. Signal time typically should be modified to serve the changes to traffic and accommodate bicyclists.
- **On Oakland Avenue**, a road diet that converts the right travel lane to a buffered bicycle lane or a bike lane and parking lane in each direction is recommended. Signal time typically should be modified to serve the changes to traffic and accommodate bicyclists.

Before road diets are implemented on either of these roads, the following should be considered:

- **Additional, more detailed analysis.** This plan has completed a high-level analysis of road diets along Maple Avenue and Oakland Avenue. Before a road diet is implemented, a detailed traffic capacity analysis is required to determine the feasibility of removing travel lanes.
- **Pilot to test road diet.** Where curb work changes are necessary for a road diet, a pilot road diet can be implemented using pavement markings, flexible posts and temporary curbs. A pilot road diet costs less to construct and provides the opportunity to evaluate the effects to traffic flow and safety before fully reconstructing the road.

FIGURE 3.13C PILOT ROAD DIET EXAMPLE



This graphic provides an example of how flexible posts and temporary curbs can be used to pilot changes to roadway configurations.

---

#### ADDITIONAL DETAILS ON REMOVING A SIGNAL:

This plan recommends the consideration of removing the traffic signal at several intersections including Oak & Chesterfield, Adams & Buckingham, Willits & Bates, Maple & Lake Park, Pierce & Southlawn and Maple & Henrietta. At each of these intersections ***the removal of the signal is only recommended in conjunction with other improvements*** that will provide opportunities for pedestrians to cross the street and motorists to turn onto the major street. Additional considerations for the alternatives that included removal of a traffic signal at these intersections include:

- **Test the removal of the signal.** The traffic signals can be switched to 24-hour flashing operation to test how the intersection would operate without a signal.
- **Add curb extensions.** At Oak & Chesterfield, Willits & Bates and Maple & Henrietta, curb extensions are recommended for the “Stop-Controlled Alternative”. Curb extensions improve the pedestrian crossing in the absence of a signal.
- **Add a median island.** At Adams & Buckingham, Maple & Lake Park and Pierce & Southlawn, median islands are recommended for the “Stop-Controlled Alternative”. Median islands improve the pedestrian crossing in the absence of a signal and allow pedestrians to cross the street in two stages.
- **Add a center-left-turn lane.** At Maple & Lake Park, the removal of the signal is only recommended in conjunction with the road diet. The road diet will include the installation of a center-left-turn lane that will provide motorists with the opportunity to turn left in two stages, only crossing one lane of traffic at a time. Further, vehicles traveling in one direction will be confined to one lane on Maple Avenue, making it easier for motorists on the side street to judge the availability of gaps in vehicles along the major road.

## NETWORK IMPLEMENTATION PLAN

### MASTER PLAN ADOPTION

Adopting the Multi-modal Plan is the first step in the implementation process as this gives the recommendations official standing. Having the plan officially adopted is key when seeking outside funding for recommended improvements. It indicates to outside funding sources that a particular project is part of a larger vision and has community buy-in.

### COORDINATION

The project Steering Committee should continue to meet after the plan has been adopted to provide continued coordination and to help oversee the implementation of the plan.

---

#### TOPICS:

4.1	NETWORK PHASING OVERVIEW	PAGE 78
4.2	PHASE 1	PAGE 80
4.3	PHASE 2	PAGE 92
4.4	PHASE 3	PAGE 104
4.5	PHASE 4	PAGE 112
4.6	PHASE 1 AND 2 COST ESTIMATE OVERVIEW	PAGE 114

## NETWORK IMPLEMENTATION PLAN

### 4.1 NETWORK PHASING OVERVIEW

#### PHASE 1

Phase 1 focuses on already planned road and infrastructure projects in the City that are included within the City's Capital Improvement Plan (CIP). Integrating improvements into other larger projects is typically the most cost effective way to implement improvements. Some elements of Phase 1 are incidental to the cost of the currently planned projects, others expand the scope and cost of the planned projects. The implementation plan identifies the costs that exceed the original scope of the project.

#### PHASE 2

For the next ten or so years (depending on available funding), the project should focus on establishing the core network. This network includes improvements that may be accomplished by relatively modest changes to the existing road system. It creates connections all the way across the City and establishes the backbone to the multi-modal system. The connections incorporate existing facilities, proposed bike lanes and shared lane markings on primary roads, proposed bike routes on local roads, proposed road crossings improvements, and connections to transit locations. While not everyone will be comfortable using all of these facilities, they will provide a strong foundation from which to build a more comprehensive multi-modal network.

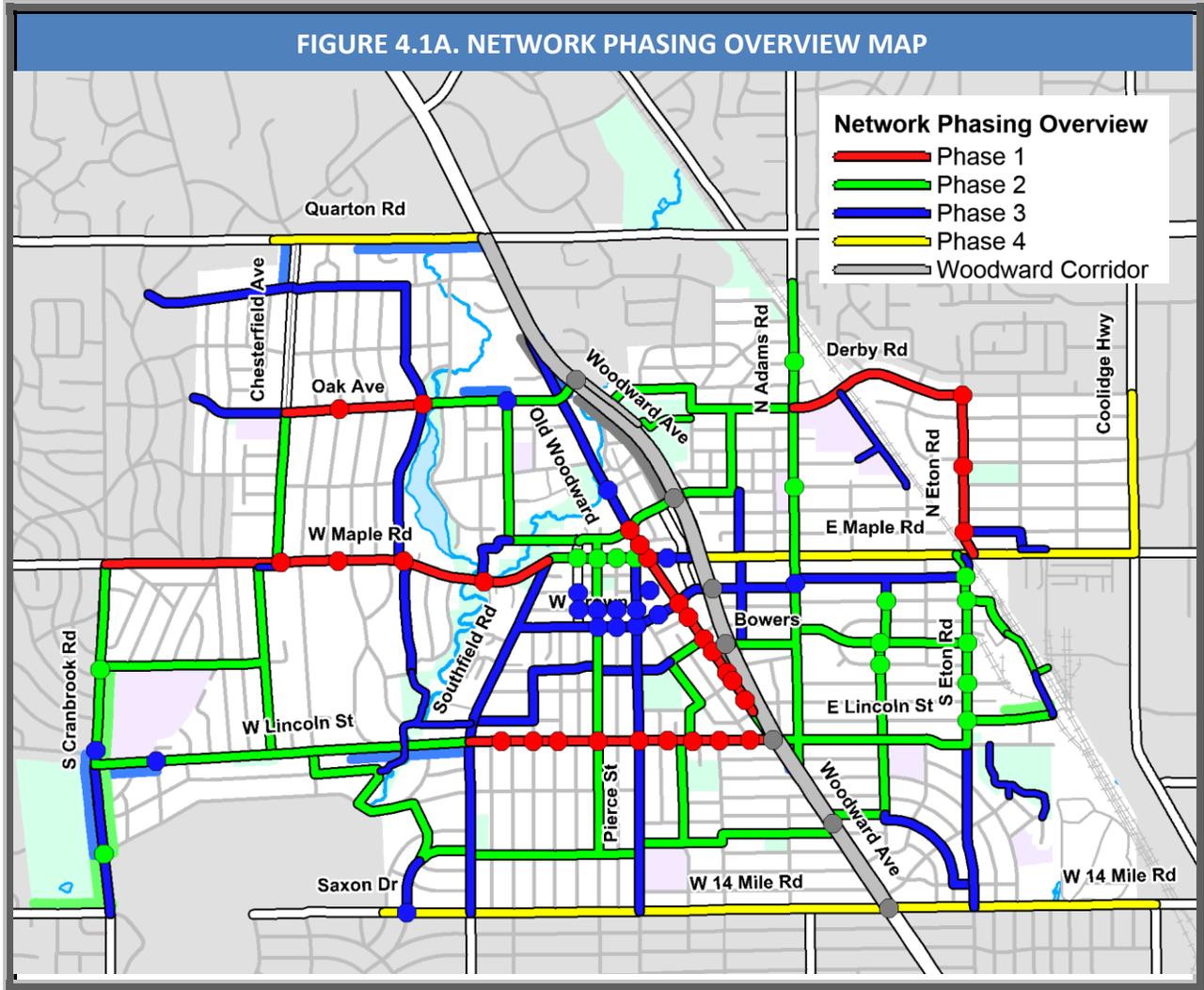
The goal is that with the completion of Phase 1 and Phase 2 there will be a substantial multi-modal network in place that provides connections to key destinations around the City on routes that a large majority of the population would be comfortable using.

#### PHASE 3

Phase 3 focuses on expanding the network via cost-effective projects that may generally be accomplished within the existing road cross section. This phase includes all the of the remaining network improvements. Some projects in phase 3 may be dependent on items in phases one and two being completed.

#### PHASE 4

For some roads such as 14 Mile Road, E. Maple, Quarton Road and Coolidge Highway there are limited cost effective solutions for some mode types in the near-term. In the future, when these streets are reconstructed they should be evaluated at that time to see what types of improvements are possible and desired.



**CONCURRENT STUDIES**

Numerous concurrent studies were underway on the Woodward Avenue Corridor during the creation of this plan. Due to this occurrence, implementation recommendations for this corridor were not provided. Details on the Woodward Avenue Corridor can be found under the Specific Area Concept Plans.

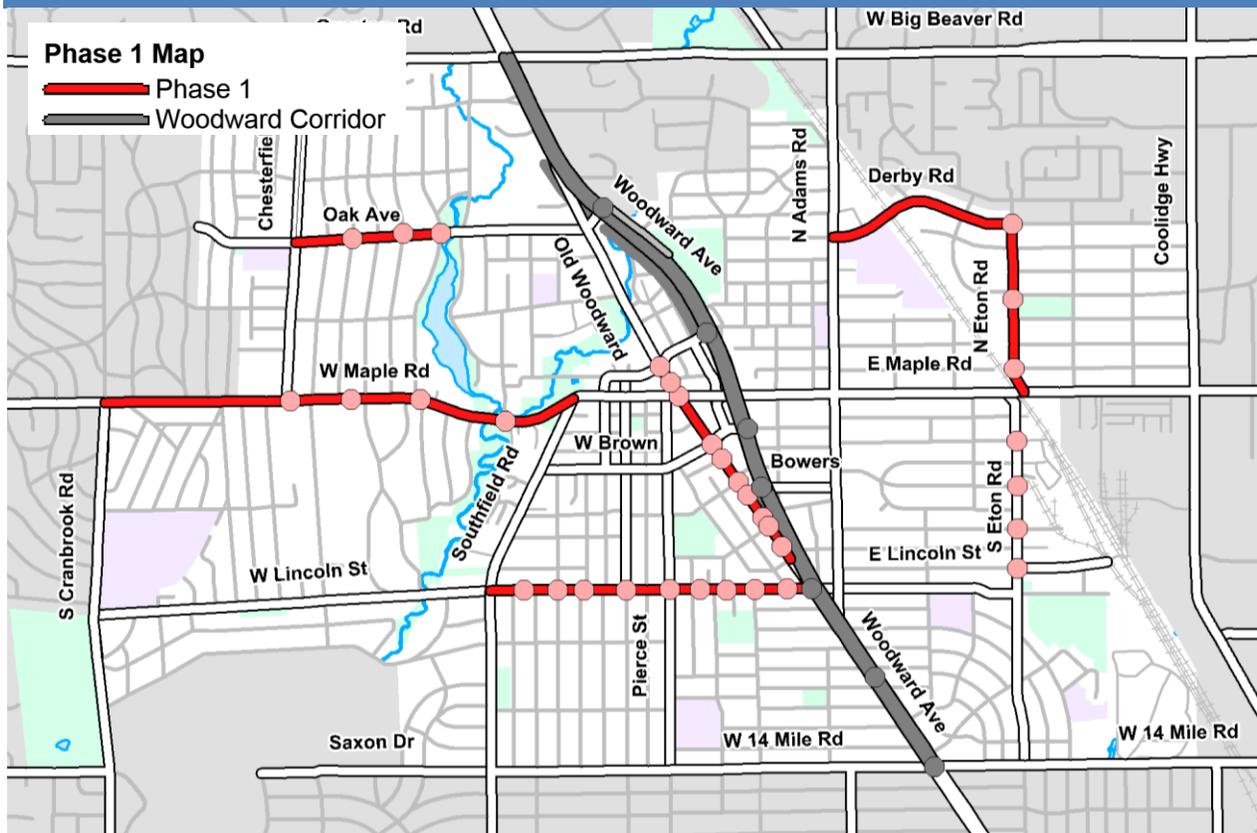
## 4.2 PHASE 1

### PHASE 1: OVERVIEW

Many of the routes in Phase 1 may be implemented as part of the City’s Capital Improvement Plan (CIP). A Capital Improvement Plan is a short-range plan, usually five to ten years which identifies capital projects and provides planning schedules and options for financing the plan. CIP roadway projects generally fall into two categories, resurfacing and reconstruction. Resurfacing projects typically only affect the surface of the roadway, whereas in a reconstruction project the existing roadway, curb and sidewalk may be completely removed and reconstructed. Incorporating the proposed improvements with the CIP is a cost effective way to implement the facilities as it will reduce mobilization costs and help to consolidate roadway closures.

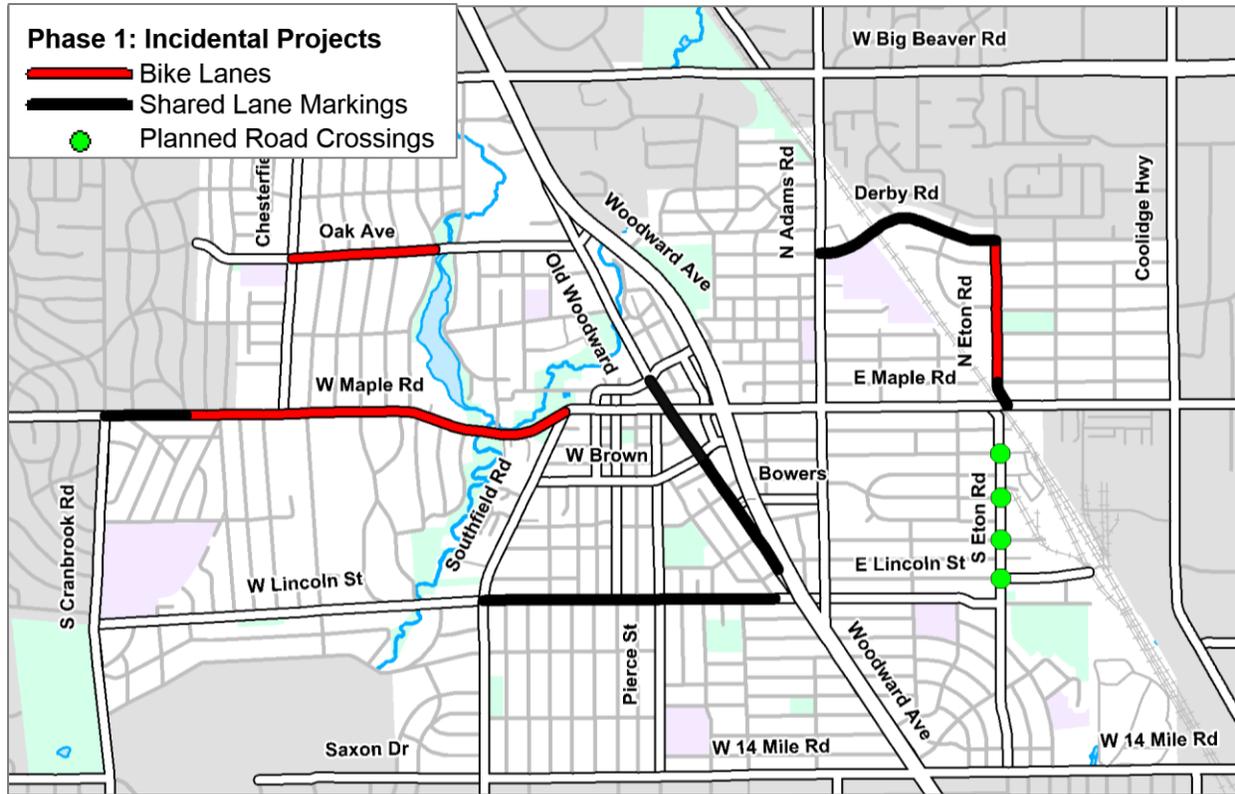
The following pages provide a more detailed breakdown of Phase 1.

FIGURE 4.2A. PHASE 1



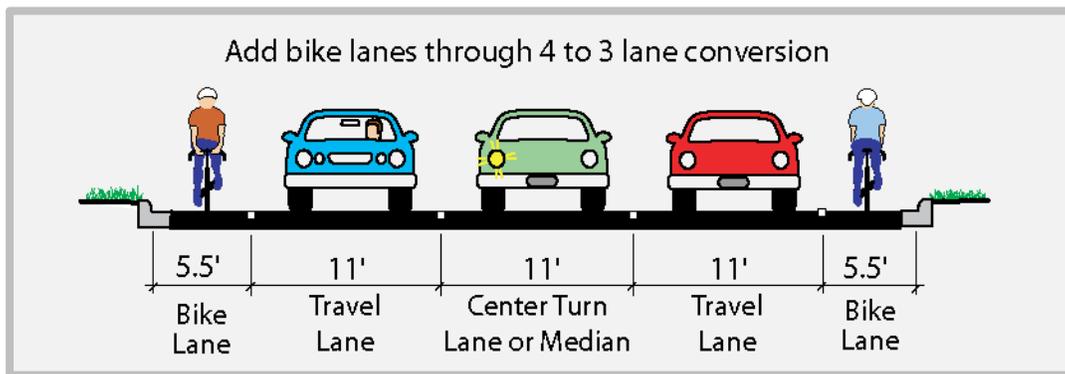
**PHASE 1: INCIDENTAL PROJECTS**

The following is a list of projects that could be implemented as part of the City’s Capital Improvement Plan (CIP) with incidental costs.

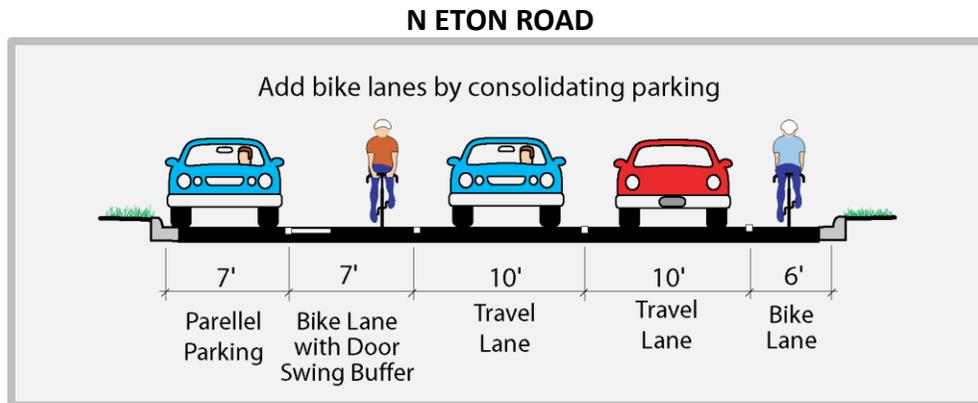


Add bike lanes to W Maple Road between Waddington Street and Southfield Road through a four-lane to three-lane conversion as part of the 2015 road resurfacing project.

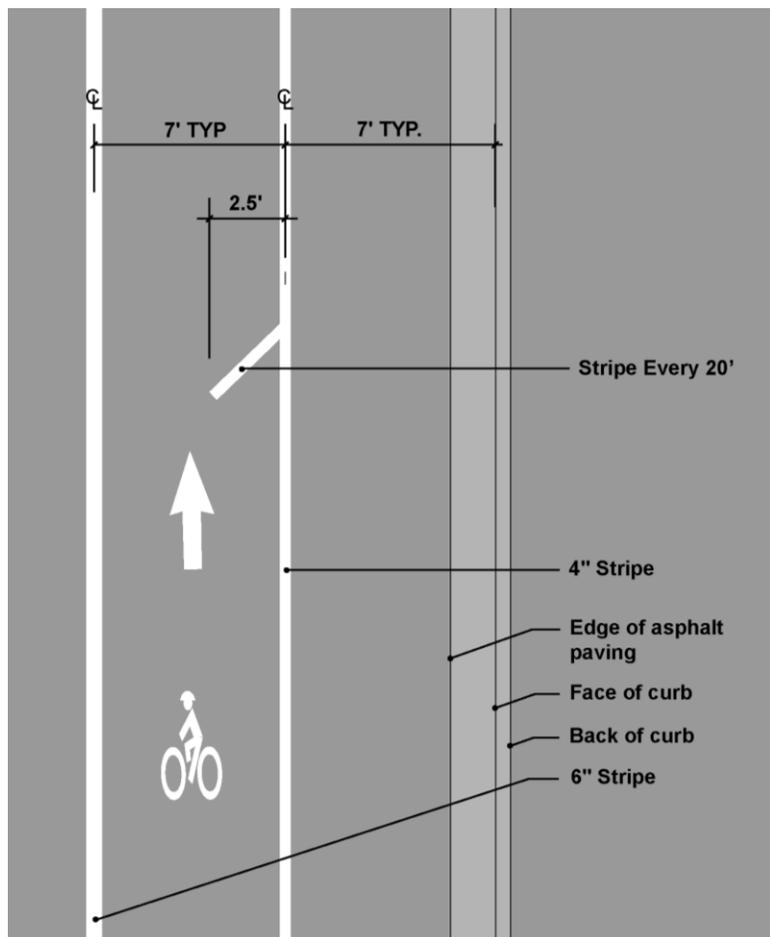
**W MAPLE ROAD**



Add bike lanes to N Eton Road between Derby Road and Yorkshire Road by consolidating the parking to the west side of the road as part of the 2014 road reconstruction project.

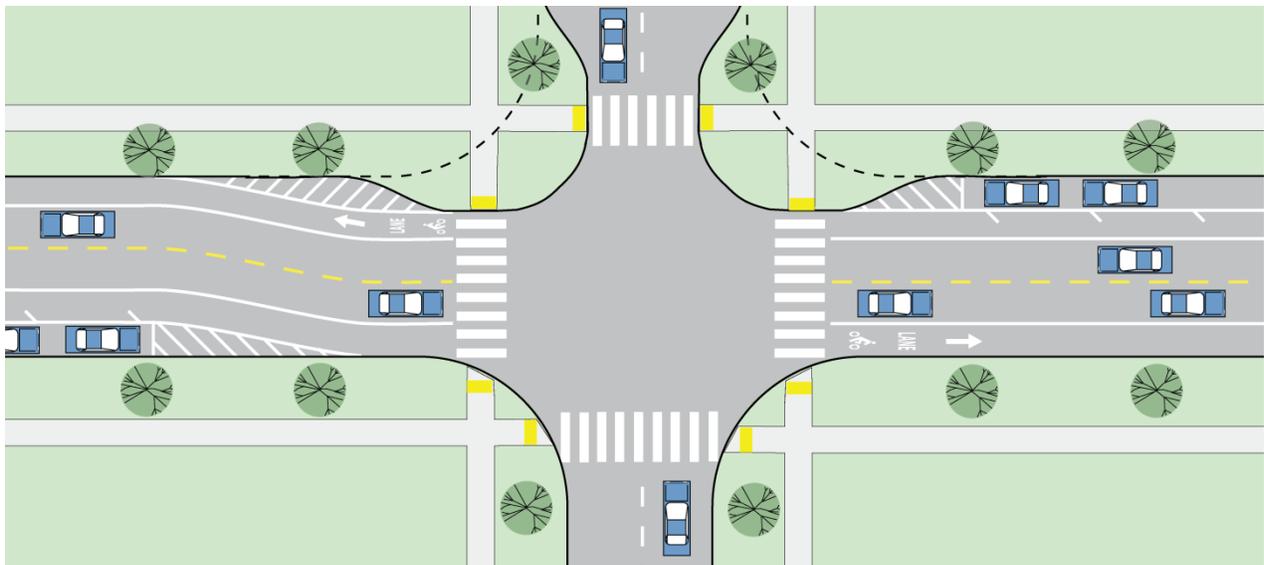
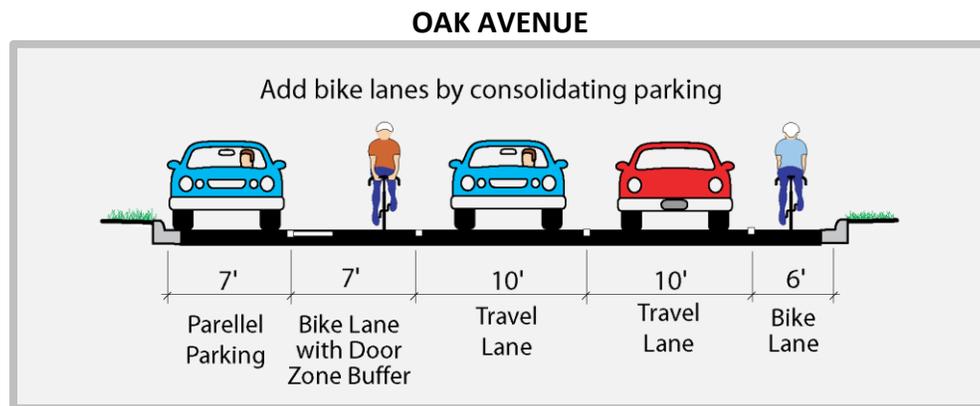


Markings for the door swing zone of the parked cars are proposed within the bike lane when it is adjacent to on-street parking.



Add bike lanes to Oak Avenue between Chesterfield Avenue and Lake Park Drive by consolidating the parking to one side of the road as part of the 2016 road reconstruction project. To provide additional traffic calming the consolidated parking should alternate from the north side of the road to the south side of the road every few blocks, changing sides where there are proposed curb extensions:

- Chesterfield Avenue to Suffield Avenue – Parking on south side
- Suffield Avenue to Puritan Avenue – Parking on north side
- Puritan Avenue to Lake Park Drive – Parking on south side



Pavement markings for the door swing zone are proposed between the on-street parking and the bike lane. See previous page for details.

Add shared lane markings to the following corridors:

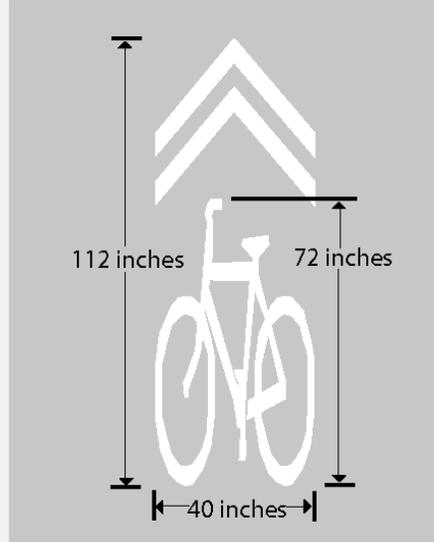
- Derby Road between N Adams Road and the Railroad Overpass (2013 reconstruction project)
- Derby Road between the Railroad Overpass and N Eton Road (2014 resurfacing project)
- Lincoln Street between Southfield Road and Ann Street (2014 resurfacing project)
- N Eton Road between Yorkshire Road and E Maple Road (2014 reconstruction project)
- W Maple Road between Cranbrook Road and Waddington Street (2015 resurfacing project)
- N Old Woodward Avenue between Willits Street and W Maple Road (2016 reconstruction project)
- S Old Woodward Avenue between W Maple Road and E Brown Street (2016 reconstruction project)
- S Old Woodward Avenue between E Brown Street and Landon Road (2017 reconstruction project)

Four new road crossings are planned on S Eton Road between E Maple Road and E Lincoln Street in 2013. The plans for these crossing include basic improvements such as pavement markings. As part of Phase 2 it is recommended that curb extensions be implemented at these crossing locations as well.

<b>PHASE 1 INCIDENTAL PROJECTS:</b>				
<b>Road</b>	<b>From</b>	<b>To</b>	<b>Quantity</b>	<b>Unit</b>
<b>Bike Lanes:</b>				
N Eton Rd	Yorkshire Rd	Derby Rd	0.40	MI
W Maple Rd	Waddington St	Southfield Rd	1.12	MI
Oak Ave	Chesterfield Ave	Lake Park Dr	0.40	MI
<b>Shared Lane Markings (placed every 200' - 250'):</b>				
Derby Rd	N Adams Rd	Railroad Overpass	0.17	MI
Derby Rd	Railroad Overpass	N Eton Rd	0.36	MI
Lincoln St	Southfield Rd	Ann St	0.80	MI
W Maple Rd	Cranbrook Rd	Waddington St	0.20	MI
N Old Woodward Ave	Willits St	W Maple Rd	0.10	MI
S Old Woodward Ave	W Maple Rd	E Brown St	0.17	MI
S Old Woodward Ave	E Brown St	Landon Rd	0.43	MI
<b>Road Crossings</b>				
S Eton Rd	at Villa Rd		1	EACH
S Eton Rd	at Bowers St		1	EACH
S Eton Rd	at Holland St		1	EACH
S Eton Rd	at Cole St		1	EACH

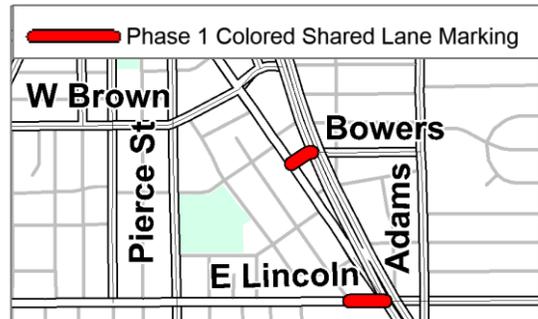
**Guidelines to Follow When Adding Shared Lane Markings:**

*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.*



**PHASE 1: PROPOSED COLORED SHARED LANE MARKING**

There is an opportunity to add colored shared lane markings to W Lincoln Street between Ann Street and Woodward Avenue during the 2014 road resurfacing project and to Bowers Avenue between S Old Woodward Avenue and Woodward Avenue during the 2017 road reconstruction project. **Please note that these projects would probably result in additional costs to the CIP.**



**PHASE 1 COLORED SHARED LANE MARKING:**

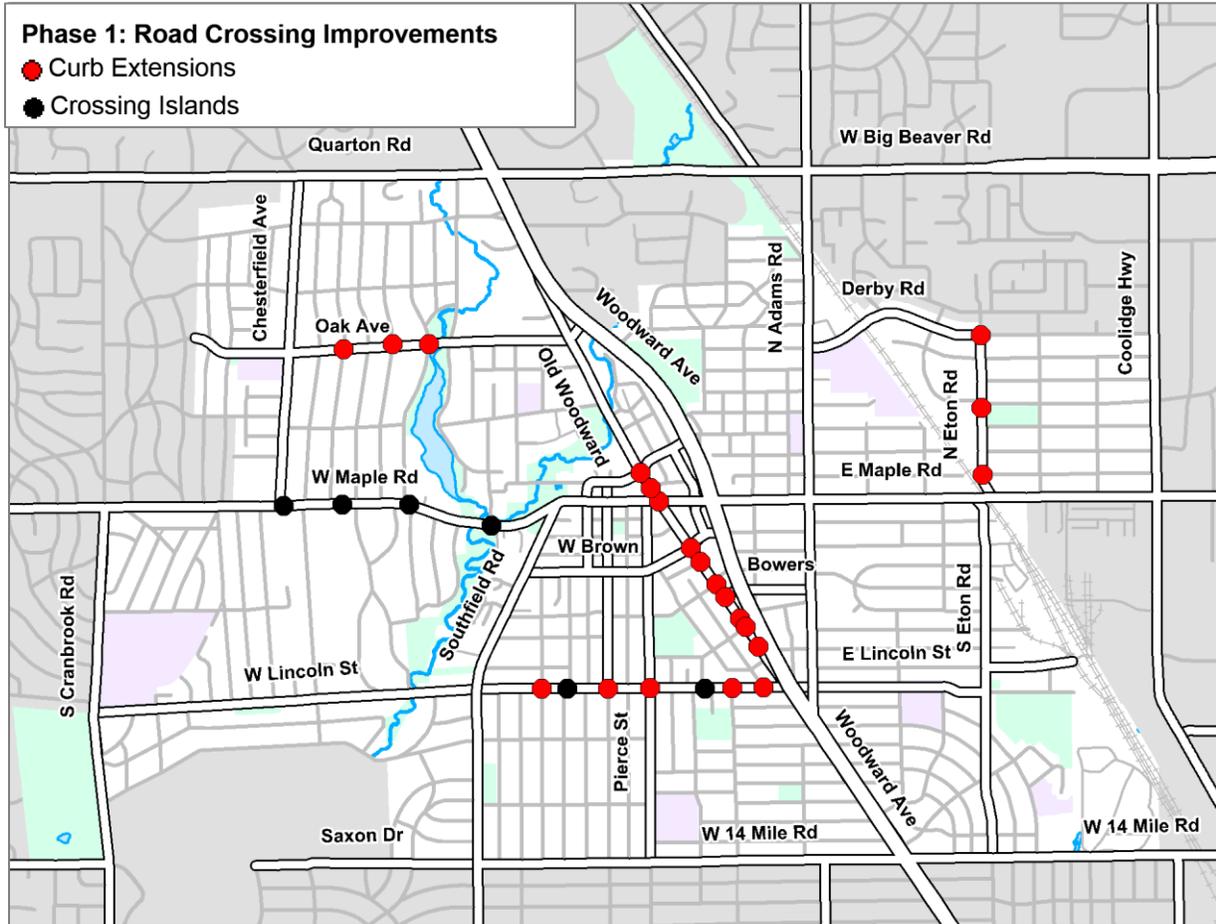
Road	From	To	Quantity	Unit
<b>Colored Shared Lane Markings (placed every 200' - 250' with solid green paint the entire length):</b>				
W Lincoln St	Ann St	Woodward Ave	0.10	MI
Bowers	S Old Woodward Ave	Woodward Ave	0.05	MI



*\*As an alternative to the green paint, white chevrons may be used through the intersections.*

**PHASE 1: PROPOSED ROAD CROSSING IMPROVEMENTS**

The following table provides a list of proposed road crossing improvements that could be implemented as part of the City’s Capital Improvement Plan (CIP). **Please note that these projects would probably result in additional costs to the CIP.**



With the proposed four-lane to three-lane conversion as part of the 2015 road resurfacing project on W Maple Road there is the potential for crossing islands at Chesterfield Avenue, Baldwin Road, between Suffield Drive and Pilgrim Avenue and between Lake Park Drive and Linden Road. Double posted rectangular rapid flash beacons with advanced warning signs in both directions are recommended at all crossing islands except Chesterfield Avenue due to the existing signal (assuming the signal at Lake Park Drive is removed with the four to three lane conversions).

Crossing islands and curb extensions are proposed on Lincoln Street between Southfield Road and Woodward Avenue with the 2014 road resurfacing project.

Curb extensions are proposed on N Eton Road between Derby Road and E Maple Avenue with the 2014 road reconstruction project.

Curb extensions are recommended at intersections along Old Woodward Avenue between Willits Road and E Brown Street as part of the 2016 road reconstruction project and between E Brown Street and Landon Street as part of the 2017 road reconstruction project.

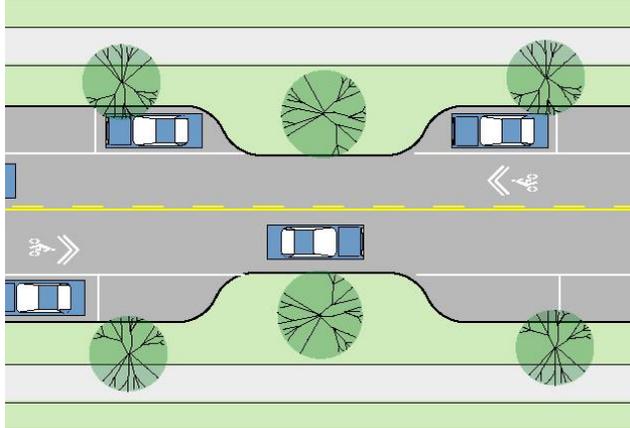
Curb extensions are proposed on Oak Avenue at Suffield Avenue, Puritan Avenue and Lake Park Drive with the 2016 road reconstruction project.

- Suffield Avenue – curb extensions on north side of road
- Puritan Avenue – curb extension on south side of road
- Lake Park Drive – curb extension on north side of road

<b>PHASE 1 ROAD CROSSING IMPROVEMENTS:</b>				
<b>Road</b>	<b>From</b>	<b>To</b>	<b>Quantity</b>	<b>Unit</b>
<b>Crossing Islands (Bollards, landscaping, concrete curbs, striping):</b>				
W Maple Rd	at Chesterfield Ave		1	EACH
W Lincoln St	at Stanley Blvd		1	EACH
W Lincoln St	at Floyd St		1	EACH
<b>Crossing Islands with Double Posted Rectangular Rapid Flash Beacon with Advance Warning Signs</b>				
W Maple Rd	Between Suffield Dr and Pilgram Ave		1	EACH
W Maple Rd	Between Lake Park Dr and Linden Rd		1	EACH
W Maple Rd	at Baldwin Rd		1	EACH
<b>Curb Extensions (Sidewalks, landscaping, concrete curbs, sidewalk)</b>				
Oak Ave	at Suffield Ave		2	EACH
Oak Ave	at Puritan Ave		2	EACH
Oak Ave	at Lake Park Dr		2	EACH
N Eton Rd	at Derby Rd		4	EACH
N Eton Rd	at Windemere Rd		1	EACH
N Eton Rd	at Yorkshire Rd		2	EACH
W Lincoln St	at Maryland Blvd		4	EACH
W Lincoln St	Pierce St		4	EACH
E Lincoln St	at Grant St		3	EACH
E Lincoln St	at Bates		4	EACH
E Lincoln St	at Ann St		4	EACH
N Old Woodward Ave	at Willits St		2	EACH
N Old Woodward Ave	at Hamilton Row		4	EACH
N Old Woodward Ave	at E Maple Rd		4	EACH
S Old Woodward Ave	at W Merrill St		4	EACH
S Old Woodward Ave	at E Brown St/Forest Ave		4	EACH
S Old Woodward Ave	at Danes Street		2	EACH
S Old Woodward Ave	at Hazel St/Frank St		2	EACH
S Old Woodward Ave	at Bowers St		3	EACH
S Old Woodward Ave	at Haynes St		3	EACH
S Old Woodward Ave	between George St and Landon St		2	EACH

**PHASE 1: PROPOSED TREE EXTENSIONS**

The following table provides a list of proposed tree extensions along Lincoln Street that could be implemented as part of the 2014 road resurfacing project. **Please note that these projects would probably result in additional costs to the CIP.**



PHASE 1 TREE EXTENSIONS:				
Road	From	To	Quantity	Unit
<b>Tree Extensions (curb extension and landscaping)</b>				
W Lincoln St	between Clark St and Lincoln Ct		2	EACH
E Lincoln St	between Shipman Blvd and Birmingham Blvd		2	EACH

**PHASE 1: PROPOSED SIDEWALKS**

There is an opportunity to provide a sidewalk along the east side of S Old Woodward Avenue between Haynes Street and Landon Street with the 2017 road reconstruction project. **Please note that this project would probably result in additional costs to the CIP.**

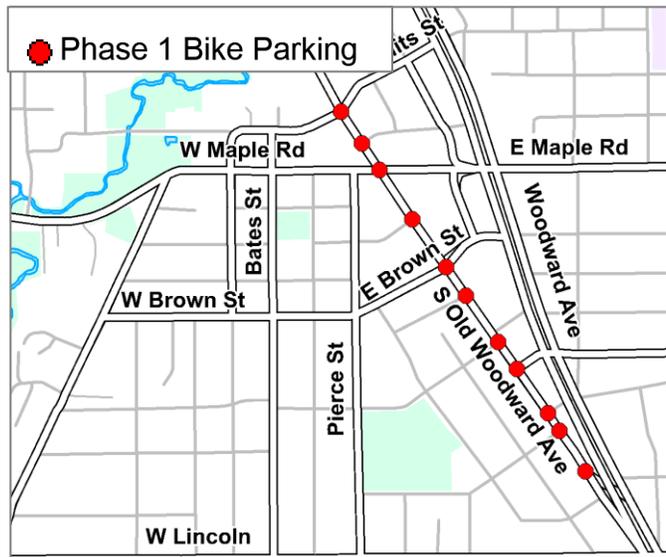


PHASE 1 SIDEWALKS:				
Road	From	To	Quantity	Unit
<b>Sidewalks (8' wide):</b>				
S Old Woodward Ave (east)	Haynes St	Landon St	700	LF

**PHASE 1: PROPOSED BICYCLE PARKING**

In 2012, the City of Birmingham implemented 45 new bike racks in the downtown area. In addition to these racks, the following table provides a list of proposed bike rack locations that could be implemented as part of the City’s Capital Improvement Plan (CIP). **Please note that the bike racks would probably result in additional costs to the CIP.**

In general, it is recommended that 2 bike racks be placed on each proposed curb extension in the Downtown area.



PHASE 1 BICYCLE PARKING:				
Road	From	To	Quantity	Unit
<b>Bicycle Parking Hoops (custom):</b>				
N Old Woodward Ave	at Willits St		4	EACH
	(2 racks per curb extension)			
N Old Woodward Ave	at Hamilton Row		6	EACH
	(2 racks per curb extension)			
N Old Woodward Ave	at E Maple Rd		6	EACH
	( 2 racks per curb extension on northeast, northwest and southeast)			
S Old Woodward Ave	at W Merrill St		2	EACH
	(2 racks on curb extension on east side)			
S Old Woodward Ave	at E Brown St/Forest Ave		8	EACH
	(2 racks per curb extension)			
S Old Woodward Ave	at Daines Street		2	EACH
	(2 racks on curb extension on northwest corner)			
S Old Woodward Ave	at Hazel St/Frank St		4	EACH
	(2 racks per curb extension)			
S Old Woodward Ave	at Bowers St		4	EACH
	(racks per curb extension on northeast and southeast corners)			
S Old Woodward Ave	at Haynes St		6	EACH
	(2 racks per curb extension)			
S Old Woodward Ave	between George St and Landon St		2	EACH
	(2 racks per curb extension)			

**PHASE 1: PROPOSED TRANSIT IMPROVEMENTS**

The following table provides a list of proposed transit shelters that could be implemented as part of the City’s Capital Improvement Plan (CIP).

**Please note that the shelters would probably result in additional costs to the CIP.**

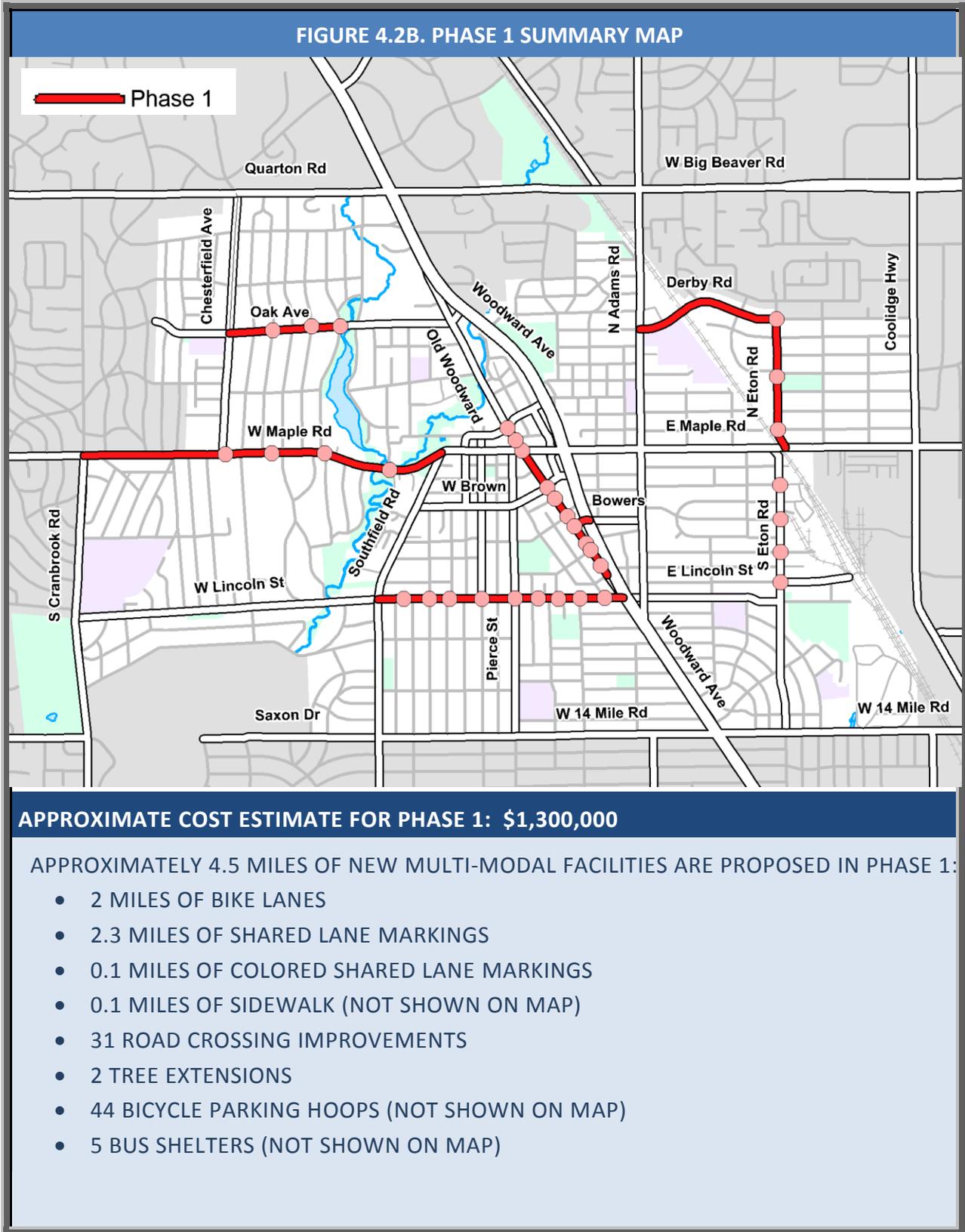
Bus shelters are recommended at high volume bus stops in the downtown in coordination with proposed curb extensions.



PHASE 1 TRANSIT IMPROVEMENTS:				
Road	From	To	Quantity	Unit
<b>Bus Shelter</b>				
N Old Woodward Ave	at the northeast corner of Willits St		1	EACH
N Old Woodward Ave	at the northwest corner of W Maple Rd		1	EACH
N Old Woodward Ave	at the southeast corner of E Maple Rd		1	EACH
S Old Woodward Ave	at the southwest corner of W Merrill St		1	EACH
S Old Woodward Ave	at the southeast Daines Street		1	EACH
Does not include engineering fees or contingency				



EXISTING BUS SHELTER ON S OLD WOODARD AVENUE



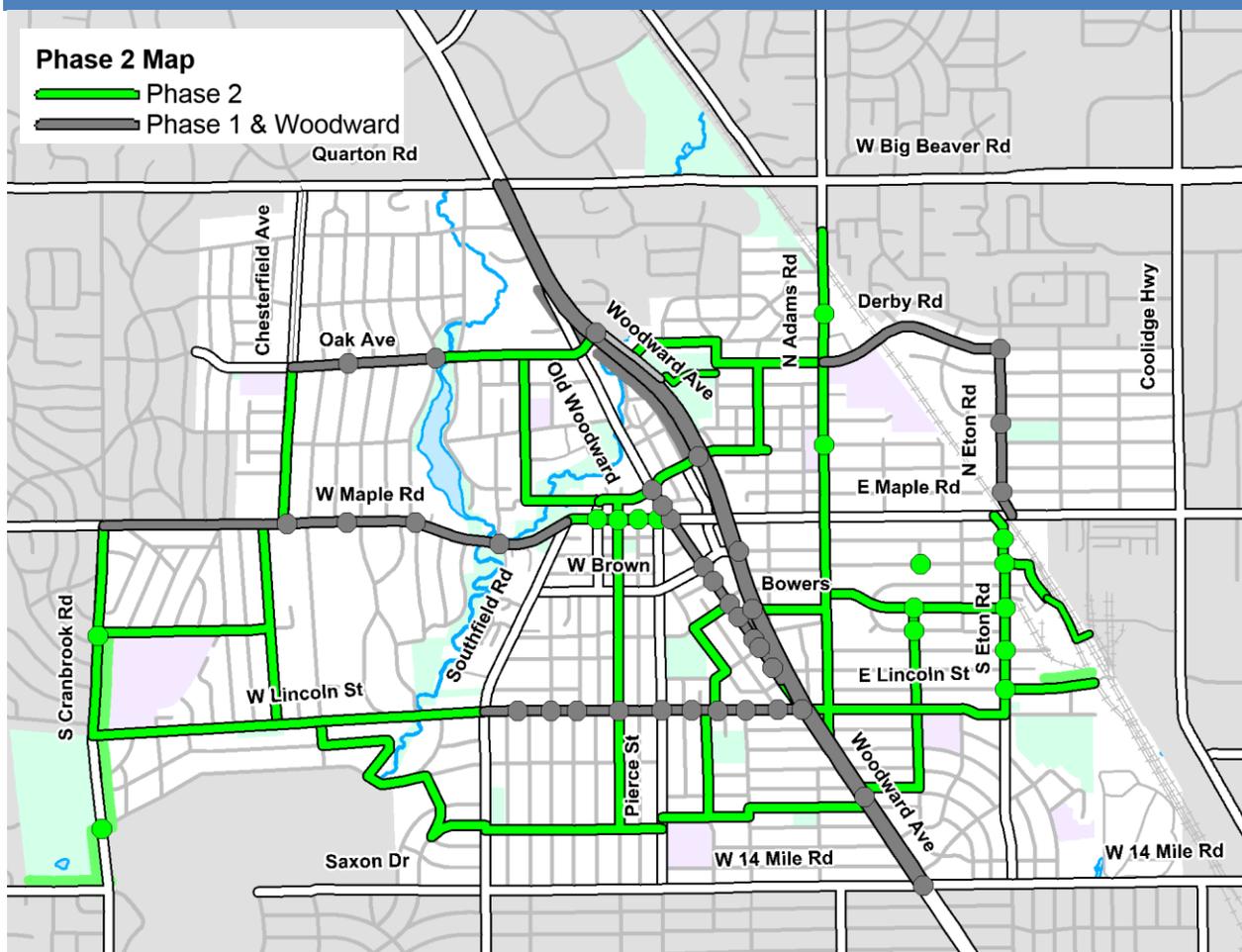
### 4.3 PHASE 2

#### PHASE 2: OVERVIEW

Phase 2 objective is to provide connections across the community and create a backbone for the City’s long-range multi-modal system. This phase achieves this by building on the existing multi-modal system.

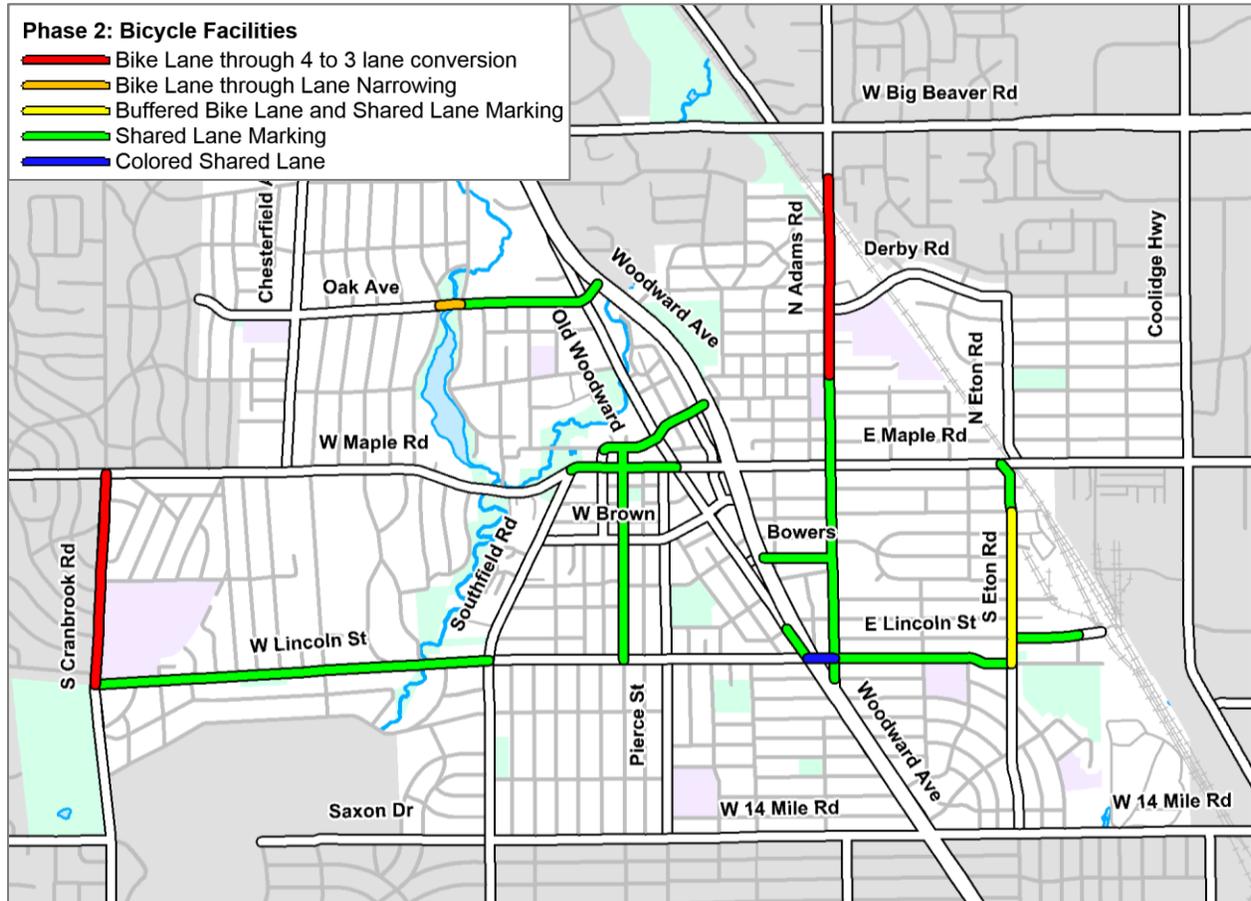
The following pages provide a more detailed breakdown of Phase 2.

FIGURE 4.3A. PHASE 2



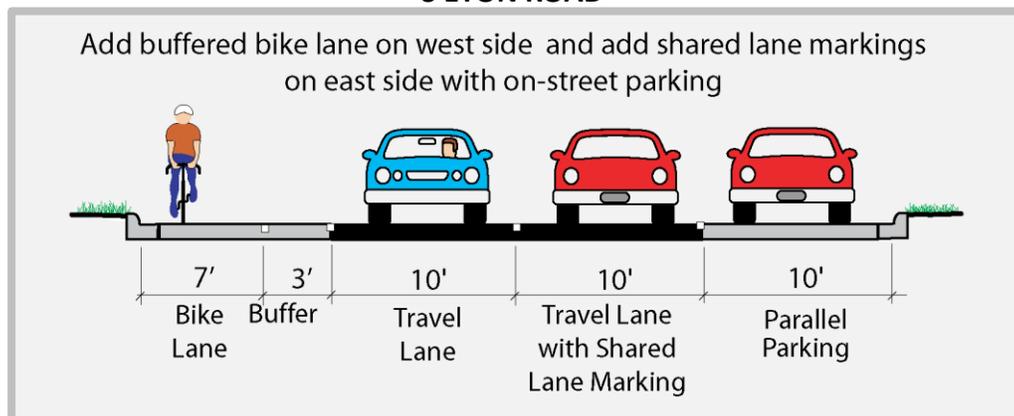
**PHASE 2: PROPOSED BIKE FACILITIES**

The following provides a list of on-road bike facilities that can be implemented in the near-term with minimal changes to the roadway. Please note that at time of implementation all bike facilities should be accompanied by appropriate signage.



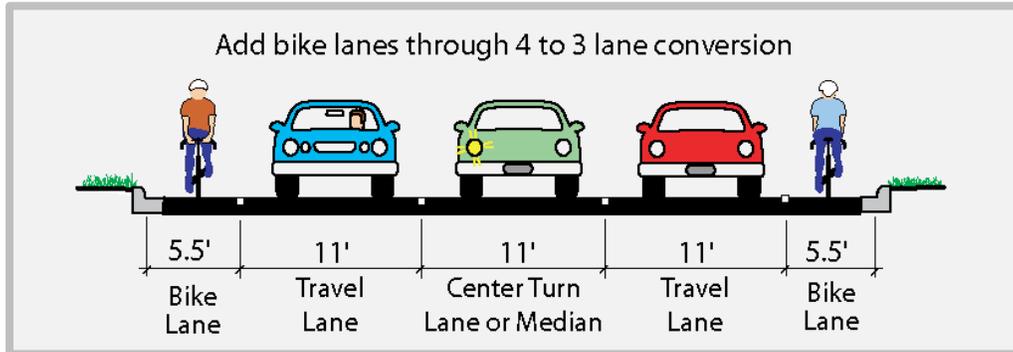
On S Eton Road between Yosemite Boulevard and E Lincoln Street, remove parking on the west side of the street and add a buffered bike lane. On the east side of the street keep on-street parking and add a shared-lane marking. The buffer between the bike lane and travel lane should be cross hatched.

**S ETON ROAD**



Add bike lanes to S Cranbrook Road between W Maple Avenue and W Lincoln Street through a four-lane to three-lane conversion. Add bike lanes to N Adams Road between Madison Street and Evergreen Drive through a four-lane to three-lane conversion. Please note that prior to implementation a micro-simulation may be necessary to see how school traffic timing affects both corridors.

### S CRANBROOK ROAD AND N ADAMS ROAD



Add bike lanes to Oak Avenue between Lake Park Drive and Lakeside Drive by adding an edge stripe 6' out from the curb on both sides of the road.

Add shared lane markings to the following roadways:

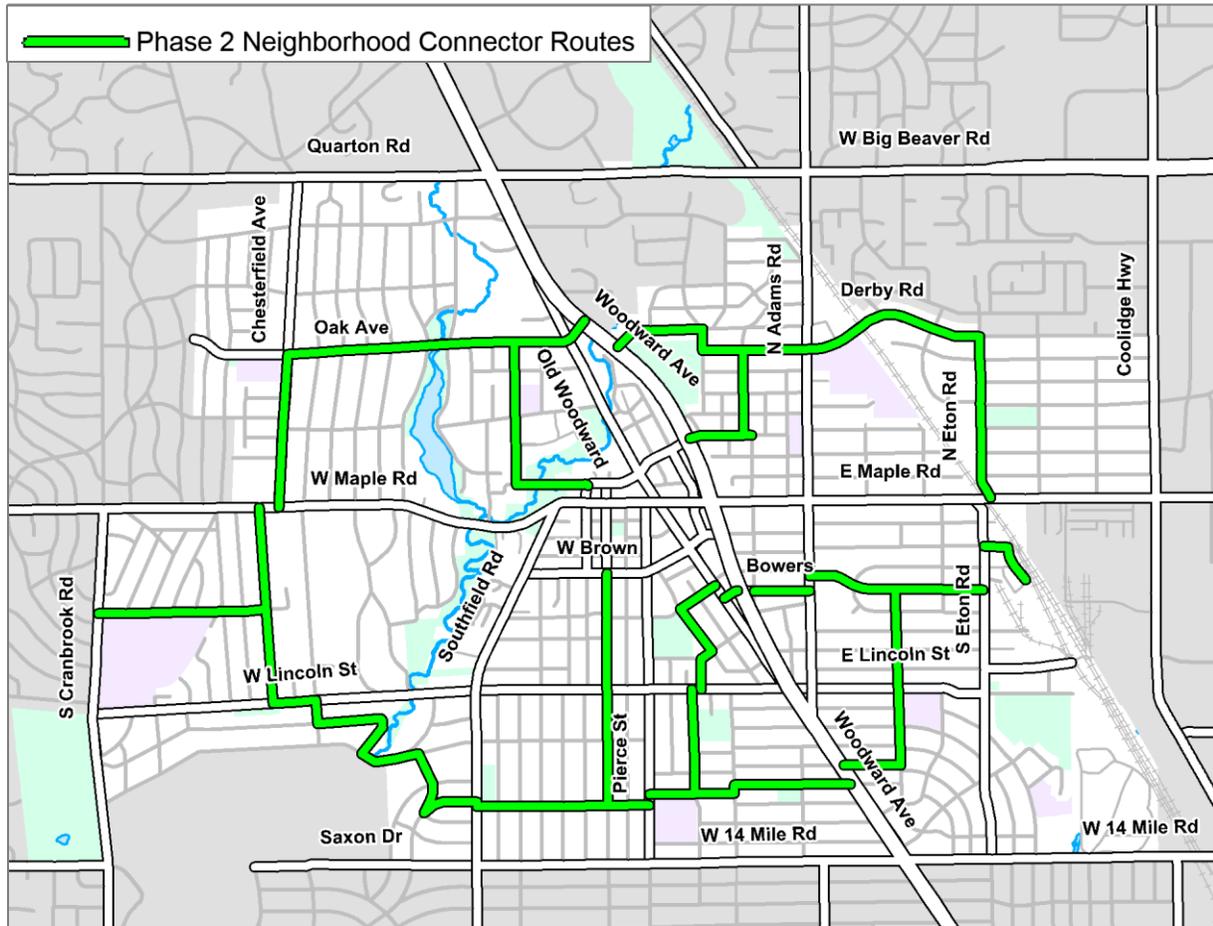
- W Lincoln Street between S Cranbrook Road and Southfield Road
- E Lincoln Street between Adams Road and S Eton Road
- S Eton Road between W Maple Rd and Yosemite
- N Eton Road between Yorkshire Road and W Maple Road
- Bowers Street between Woodward Avenue and Adams Avenue
- Oakland Avenue between N Old Woodward Avenue and Woodward Avenue
- Willits Street between N Chester Street and N Old Woodward Avenue
- W Maple Road between Southfield Road and N Old Woodard Avenue
- S Bates Street between W Lincoln St and Willits Street
- Cole Street east of S Eton Street
- Adams Road between Madison Street and Woodward Avenue
- Oak Avenue between Lake Park Drive and Woodward Avenue
- Chesterfield Avenue between Oak Avenue and W Maple Road
- One-way on S Old Woodward Ave between Landon Rd and E Lincoln St

Add colored shared lane markings to E Lincoln Street between Woodward Avenue and Adams Road.

<b>PHASE 2 BICYCLE FACILITIES:</b>				
<b>Road</b>	<b>From</b>	<b>To</b>	<b>Quantity</b>	<b>Unit</b>
<b>Bike Lanes through 4 to 3 lane conversion (stripe removal, pavement markings and signage):</b>				
S Cranbrook Rd	W Maple Rd	W Lincoln Rd	0.57	MI
N Adams Rd	Evergreen Dr	Madison St	0.55	MI
<b>Buffered Bike Lane (pavement markings and signage in one direction)</b>				
S Eton Rd	Yosemite Blvd	E Lincoln St	0.5	LF
<b>Bike Lanes through Lane Narrowing:</b>				
Oak Ave	Lake Park Dr	Lakeside Dr	0.06	MI
<b>Shared Lane Markings (placed every 200' - 250'):</b>				
W Lincoln St	S Cranbrook Rd	Southfield Rd	1.00	MI
E Lincoln St	Adams Rd	S Eton Rd	0.51	MI
S Eton Rd	W Maple Rd	Yosemite	0.07	MI
N Eton Rd	Yorkshire Rd	W Maple Rd	0.08	MI
Bowers St	Woodward Ave	Adams Rd	0.2	MI
Oakland Ave	N Old Woodward Ave	Woodward Ave	0.16	MI
Willits St	N Chester St	N Old Woodward Ave	0.15	MI
W Maple Rd	Southfield Rd	N Old Woodward Ave	0.27	MI
S Bates	W Lincoln St	Willits St	0.6	MI
Cole St	East of S Eton St		0.25	MI
Adams Rd	Madison St	Woodward Ave	0.9	MI
Oak Ave	Lake Park Dr	Woodward Ave	0.46	MI
Chesterfield Ave	Oak Ave	W Maple Rd	0.45	MI
<b>Shared Lane Markings (placed every 200' - 250' in one direction):</b>				
S Eton Rd	Yosemite Blvd	E Lincoln St	0.5	MI
S Old Woodward Ave	Landon Rd	E Lincoln St	0.12	MI
<b>Colored Shared Lane Markings (placed every 200' - 250' with solid green paint the entire length):</b>				
W Lincoln St	Woodward Ave	Adams Rd	0.10	MI

## PHASE 2: PROPOSED NEIGHBORHOOD CONNECTOR ROUTES

The following map displays the neighborhood connector routes that should be implemented first. Initially, implementation along these routes is as simple as providing wayfinding signage identifying the direction of the route and key destinations. Eventually, other enhancements such as rain gardens, traffic calming measures, and street art may be incorporated. Please note that some of these routes are dependent on road crossings which are proposed in Phase 1 and Phase 2.

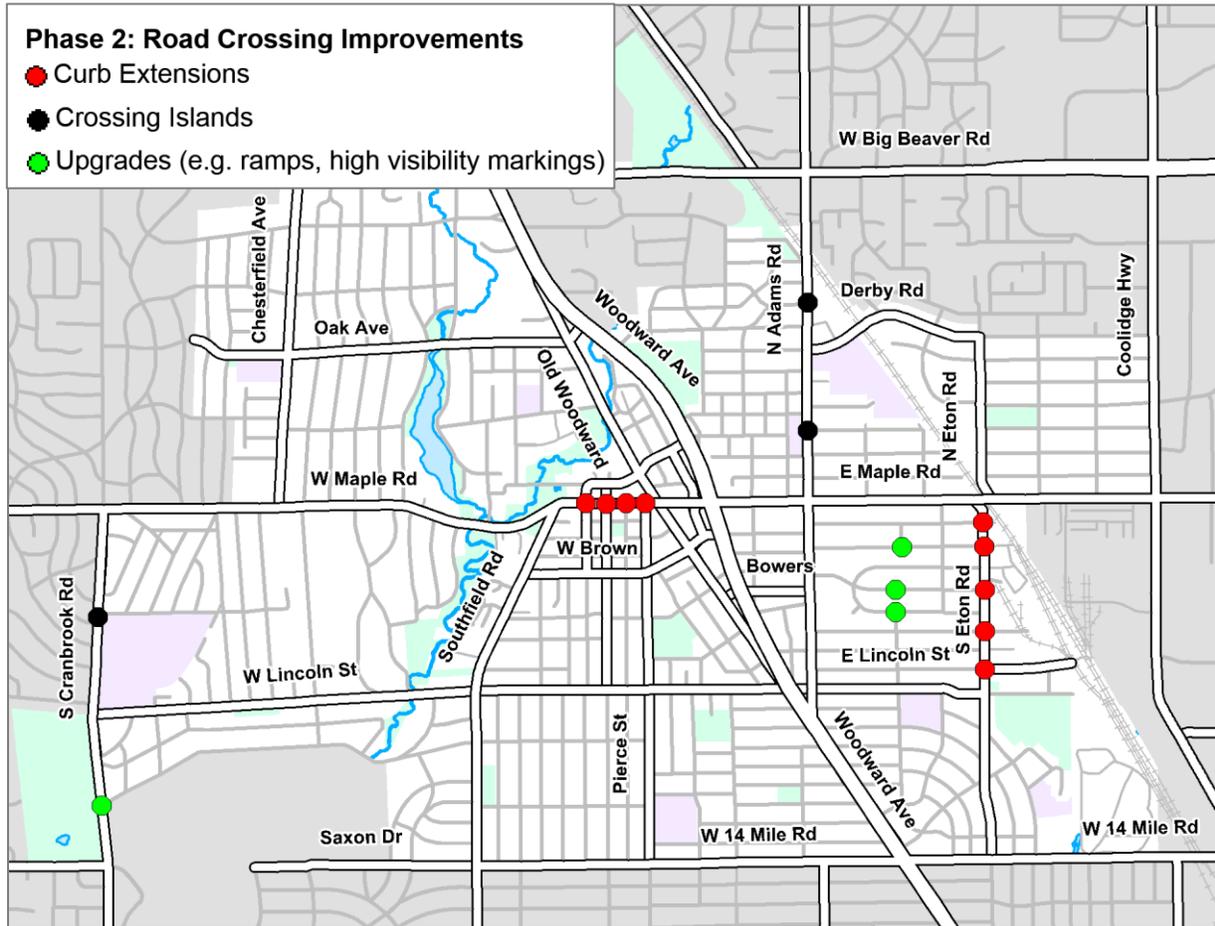


In Phase 2 only wayfinding signage is proposed. In the future, the City may consider adding some additional enhancements such as mini traffic circles, pavement markings, chicanes, street diverters, and pedestrian street lighting.

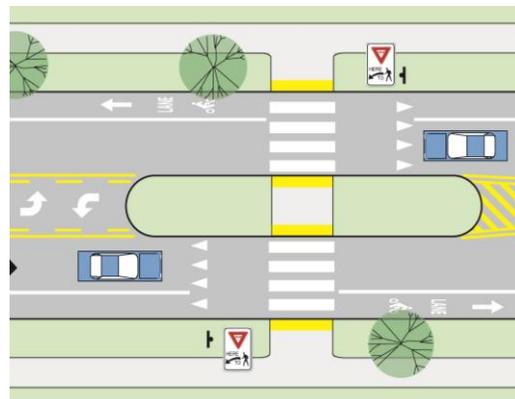
PHASE 2 NEIGHBORHOOD CONNECTOR ROUTES:				
Road	From	To	Quantity	Unit
<b>Wayfinding Signs:</b>				
Midvale	S Cranbrook Rd	Larchlea Dr	0.47	MI
Larchlea Dr	W Maple Rd	W Lincoln St	0.57	MI
W Lincoln St	Larchlea Dr	Pleasant St	0.13	MI
Pleasant St	W Lincoln St	Fairway Dr	0.08	MI
Fairway Dr	Pleasant St	Northlawn Blvd	0.30	MI
Northlawn Blvd	Fairway Dr	Latham St	0.18	MI
Latham St	Northlawn Blvd	Worthington Rd	0.16	MI
Worthington Rd	Latham St	Southfield Rd	0.16	MI
W Southlawn Blvd	Southfield Rd	Peirce St	0.36	MI
Pierce St	W Southlawn Blvd	W Southlawn Blvd	0.03	MI
E Southlawn Blvd	Pierce St	Grand St	0.24	MI
Grant St	E Southlawn Blvd	Emmons Ave	0.03	MI
Emmons Ave	Grant St	Woodward Ave	0.35	MI
Chapin Ave	Woodward Ave	Troy St	0.17	MI
Torry St	Haynes St	Chapin Ave	0.45	MI
Pathway (north of Torry St)	Bowers St	Haynes St	0.08	MI
Bowers St	Adams Rd	S Eton Rd	0.52	MI
Adams Rd	Bowers St	Bowers St	0.03	MI
Bowers St	Woodward Ave	Adams Rd	0.18	MI
Bowers St	S Old Woodward Ave	Woodward Ave	0.07	MI
S Old Woodward Ave	E Frank St	Bowers St	0.03	MI
E Frank St	Purdy St	S Old Woodward Ave	0.11	MI
Purdy St	E Frank St	George St	0.15	MI
George St	Floyd St	Purdy St	0.03	MI
Floyd St	George St	E Lincoln St	0.08	MI
E Lincoln St	Edgewood Rd	Floyd St	0.03	MI
Edgewood Rd	E Lincoln St	E Southlawn Blvd	0.3	MI
S Bates St	W Brown St	Southlawn Blvd	0.66	MI
Washington Blvd	W Lincoln St	W Southlawn Blvd	0.34	MI
Chesterfield Ave	Oak Ave	W Maple Rd	0.44	MI
Oak Ave	Chesterfield Ave	Woodward Ave	0.87	MI
Greenwood St	Oak Ave	Willits St	0.4	MI
Willits St	Greenwood St	N Chester St	0.2	MI
Woodward Ave Sidepath	Oak Ave	Wimbleton Dr	0.13	MI
Wimbleton Dr	Woodward Ave	Oxford St	0.26	MI
Oxford St	Wimbleton Dr	Mohegan St	0.06	MI
Mohegan St	Oxford St	N Adams Rd	0.3	MI
Poppleton St	Mohegan St	Oakland Ave	0.25	MI
Oakland Ave	Poppleton St	Woodward Ave	0.15	MI
Derby Rd	N Adams Rd	N Eton Rd	0.53	MI
E Eton St	Derby Rd	E Maple Rd	0.48	MI
E Maple Rd Sidepath	S Eton Rd	N Eton Rd	0.06	MI
S Eton St Sidepath	E Maple Rd	Yosemite Blvd	0.09	MI
Villa Ave	S Eton Rd	Villa Rd	0.09	MI
Villa Rd	Villa Ave	Proposed Pathway	0.12	MI
Proposed Pathway extending from Villa Rd to Troy Transit Station			0.2	MI

**PHASE 2: PROPOSED ROAD CROSSING IMPROVEMENTS**

The proposed road crossing improvements include both new road crossings and recommended upgrades to existing road crossings. Due to the high volume of walking that already exists in the City, it is important to improve the existing crossings and provide new crossings where there is high demand in order to create a safer environment for everyone.



A crossing island is proposed on S Cranbrook Road at Midvale on the south side of the intersection to be implemented concurrent with the proposed 4 to 3 lane conversion. A crossing island is proposed on N Adams at Abbey Road on north side of the intersection to be implemented concurrent with the proposed 4 to 3 lane conversion. And a crossing island is proposed at N Adams at Buckingham Avenue on the south side of intersection in the unused center turn lane.



Curb extensions are proposed throughout the downtown to help eliminate the stepped curbed and provide ramps to make the downtown more accessible to everyone. Because of the cluster of proposed curb extensions it would make more sense to implement as part of a road reconstruction project.

Curb extensions are proposed along S Eton Road near the Rail District. They should extend into the roadway 5' on the west side of the street and 8' on the east side of the street.

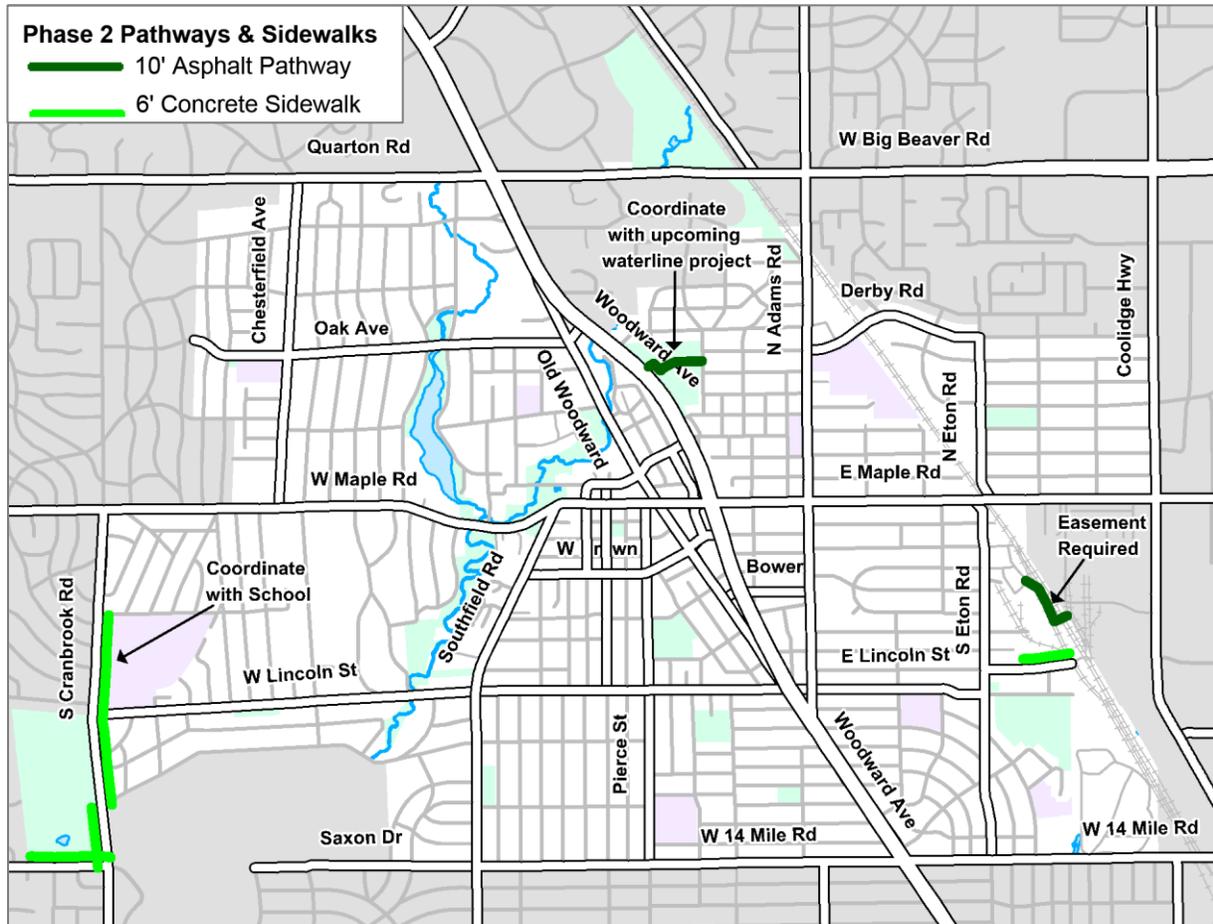
There are a few locations where pedestrian crossings are needed and/or minor improvements should be made.

- North side of Haynes Street between Bowers Street and Columbia Street – improvements include ramp, detectable warning, sidewalk extension, signs, high visibility pavement marking
- Bowers Street between Haynes Street and Columbia Street – improvements include detectable warnings, signs, high visibility pavement markings
- Villa Road at Yankee – improvements include detectable warnings, signs, high visibility pavement markings
- S Cranbrook Road at Northlawn Boulevard - improvement include ramps, detectable warnings, signs and high visibility pavement markings

<b>PHASE 2 ROAD CROSSING IMPROVEMENTS:</b>				
<b>Road</b>	<b>From</b>	<b>To</b>	<b>Quantity</b>	<b>Unit</b>
<b>Crossing Islands (Bollards, landscaping, concrete curbs, striping):</b>				
S Cranbrook Rd	at Midvale		1	EACH
N Adams Rd	at Abbey Rd		1	EACH
N Adams Rd	at Buckingham Ave		1	EACH
<b>Curb Extensions</b>				
S Eton Rd	at Yosemite Blvd		4	EACH
S Eton Rd	at Villa Rd		4	EACH
S Eton Rd	at Bowers St		4	EACH
S Eton Rd	at Holland St		4	EACH
S Eton Rd	at Cole St		4	EACH
W Maple Rd	at Chester St		1	EACH
W Maple Rd	at S Bates St		4	EACH
W Maple Rd	at Henrietta St		4	EACH
W Maple Rd	at Pierce St		4	EACH
<b>Minor Upgrades (high visibility markings, ramps and signs)</b>				
Haynes St	between Bowers St and Columbia St		1	EACH
Bowers St	between Haynes St and Columbia St		1	EACH
Villa Rd	at Yankee		1	EACH
S Cranbrook Rd	at Northlawn Blvd		1	EACH

## PHASE 2: PROPOSED PATHWAYS & SIDEWALKS

Due to the nearly complete existing sidewalk system in the City of Birmingham, only a few key sidewalk and pathway connections have been proposed in the initial phases.



Sidewalks are proposed along the west side of S Cranbrook Road between Midvale and Northlawn Boulevard and south of Northlawn Boulevard on the east side of the road down to W 14 Mile Road providing a connection between the high school and dog park. The City should coordinate with the high school when implementing the sidewalk segment along school property.

A sidewalk is proposed along the north side of W 14 Mile west of S Cranbrook Road to provide a connection to the existing sidewalk in Bloomfield Township.

A sidewalk is proposed along the north side of Cole Street east of S Eton Street to help provide connections to businesses along the corridor and in preparation for future connections to the Troy Intermodal Transit Center.

A pathway is proposed at the end of Villa Road to connect the rail district to the future Troy Intermodal Transit Center. The implementation of this pathway should be coordinated with property owners and the final design and construction of the Troy Intermodal Transit Center. Easements may be required to make this connection.

A pathway is proposed through Poppleton Park connecting Woodward Avenue to Oxford Street. Implementation of this pathway should be coordinated with the upcoming waterline project in Poppleton Park.

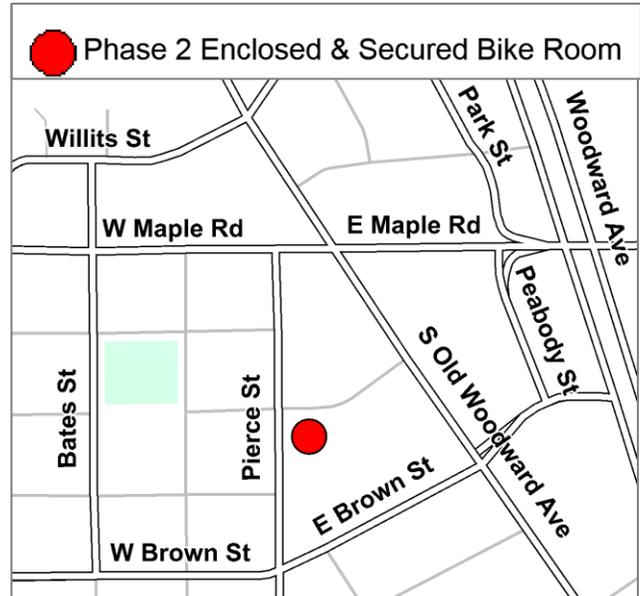
<b>PHASE 2 PATHWAYS 7 SIDEWALKS:</b>				
<b>Road</b>	<b>From</b>	<b>To</b>	<b>Quantity</b>	<b>Unit</b>
<b>Sidewalk (6' wide) along Road Right-of-way</b>				
S Cranbrook Rd (east)	Midvale	Northlawn Blvd	1500	LF
S Cranbrook Rd (west)	Northlawn Blvd	W 14 Mile Rd	900	LF
Cole St (north)	East of S Eton St		800	LF
W 14 Mile Rd	1200' west of S Cranbrook Rd		1200	LF
<b>Asphalt Pathway (10' wide, does not include cost of acquiring easment)</b>				
Rail District - Connecting Villa Rd to Troy Transit Station (easment required)			650	LF
Poppleton Park - Connecting Woodward Ave to Oxford St			1400	LF

**PHASE 2: PROPOSED BICYCLE PARKING**

Two types of bicycle parking are proposed in the downtown.

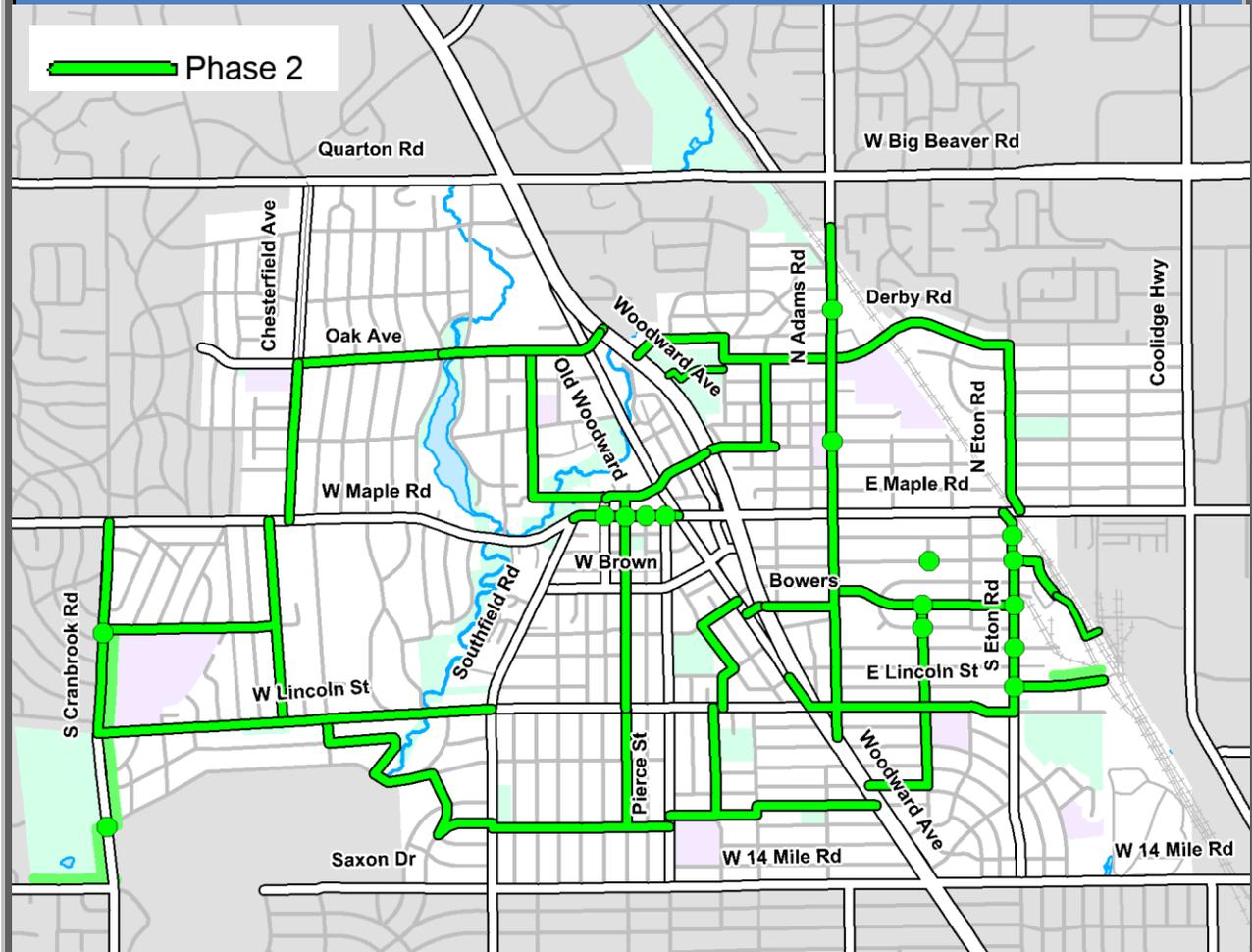
Temporary/Seasonal bicycle racks should be placed where there are large curb extensions or where space is available adjacent to outdoor dining decks. Based on their success, additional racks may be added as needed.

An enclosed and secured bike room should be placed on the ground floor (level 2) of the northeast corner of the Pierce Street parking garage.



PHASE 2 BICYCLE PARKING:				
Road	From	To	Quantity	Unit
<b>Temporary/Seasonal Racks</b>				
Downtown Area			3	EA
<b>Enclosed &amp; Secure Bike Room</b>				
Pierce St Parking Garage			1	EA

**FIGURE 4.3B. PHASE 2 SUMMARY MAP**



**APPROXIMATE COST ESTIMATE FOR PHASE 2 IMPLEMENTATION: \$1,000,000**

APPROXIMATELY 17 MILES OF NEW MULTI-MODAL FACILITIES ARE PROPOSED IN PHASE 2:

- 1.1 MILES OF BIKE LANES
- 0.5 MILES OF BUFFERED BIKE LANES
- 5.7 MILES OF SHARED LANE MARKINGS
- 0.1 MILES OF COLORED SHARED LANE MARKINGS
- 11 MILES OF NEIGHBORHOOD CONNECTOR ROUTES
- 0.8 MILES OF SIDEWALKS & PATHWAYS
- 16 ROAD CROSSING IMPROVEMENTS
- 1 ENCLOSED & SECURED BIKE ROOM (NOT SHOWN ON MAP)

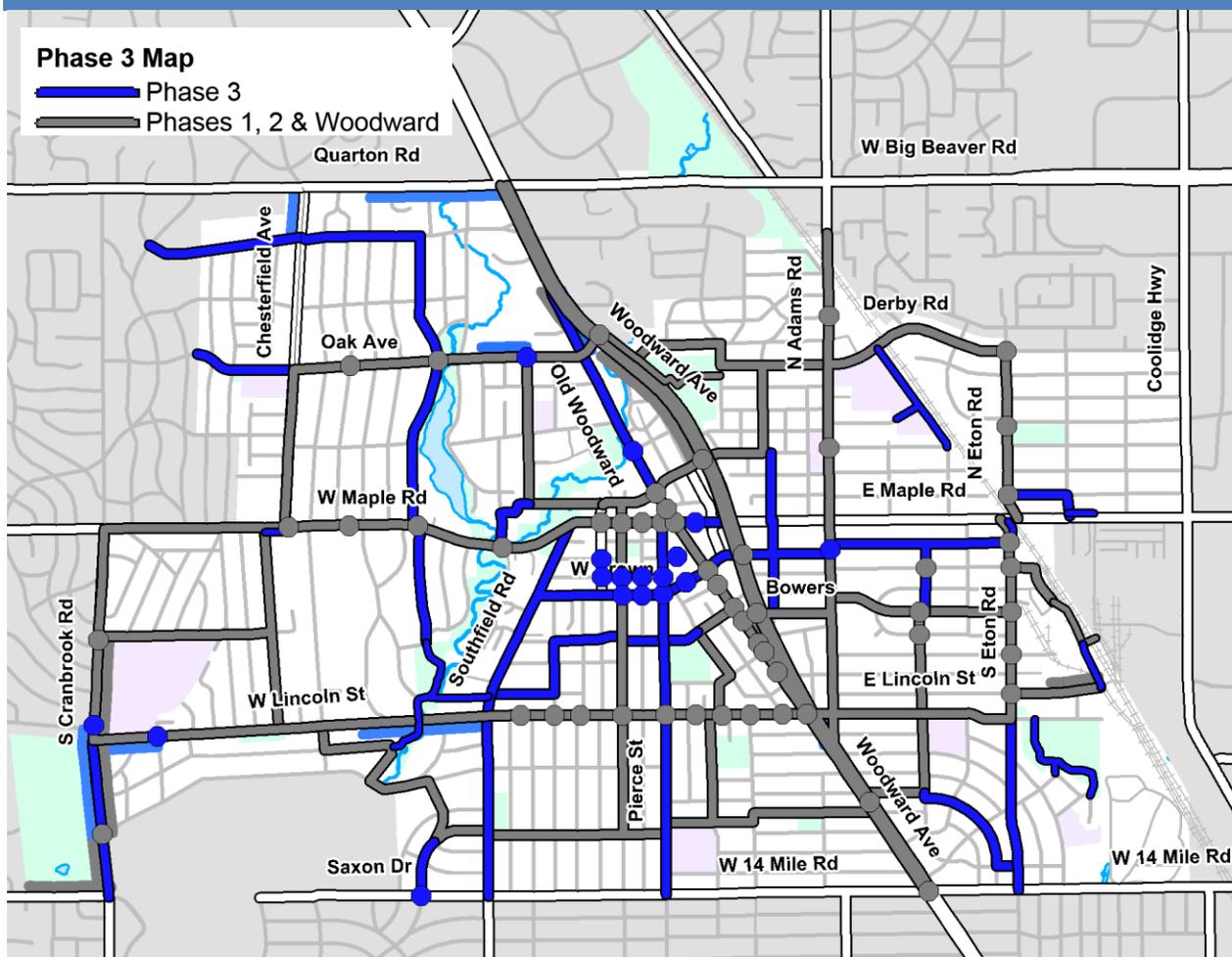
### 4.4 PHASE 3

#### PHASE 3: OVERVIEW

This phase focuses on completing the multi-modal network and includes the remaining network improvements. Due to the length of time it is going to take to complete the first two phases, the remaining improvements have been grouped into Phase 3. When the first two phases are near completion, a more thorough evaluation should be done to determine what new opportunities are available and what the costs may be.

The following pages outline the remaining infrastructure improvements to complete the multi-modal network.

FIGURE 4.3A. PHASE 3

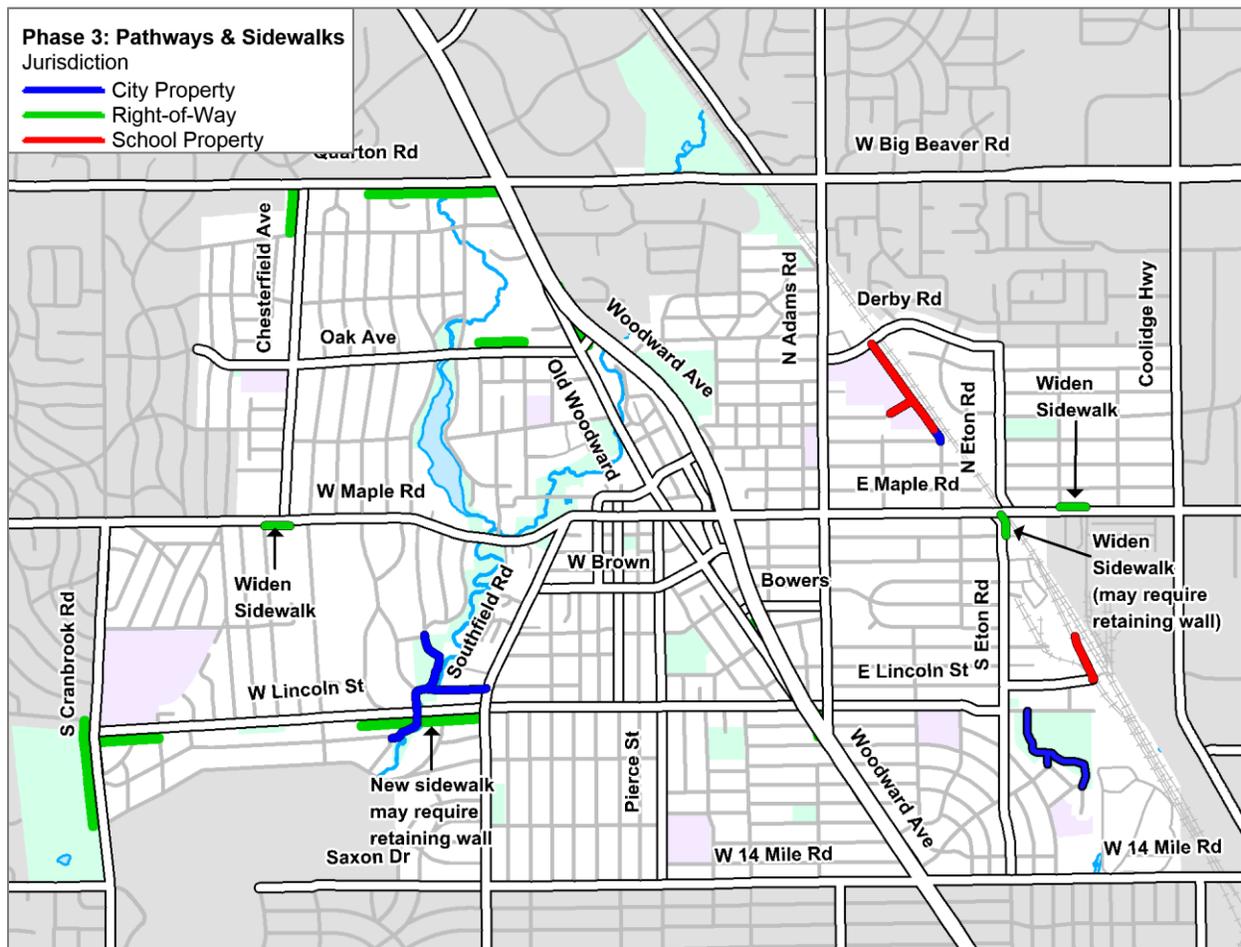


**PHASE 3: RECOMMENDED PATHWAYS & SIDEWALKS**

Phase 1 and Phase 2 focus on addressing some of the more critical gaps in the sidewalk system. Phase 3 should focus on completing the remaining gaps in the system. Completing sidewalk gaps can be costly so it is important to utilize opportunities, especially when a road is reconstructed or a property is developed.

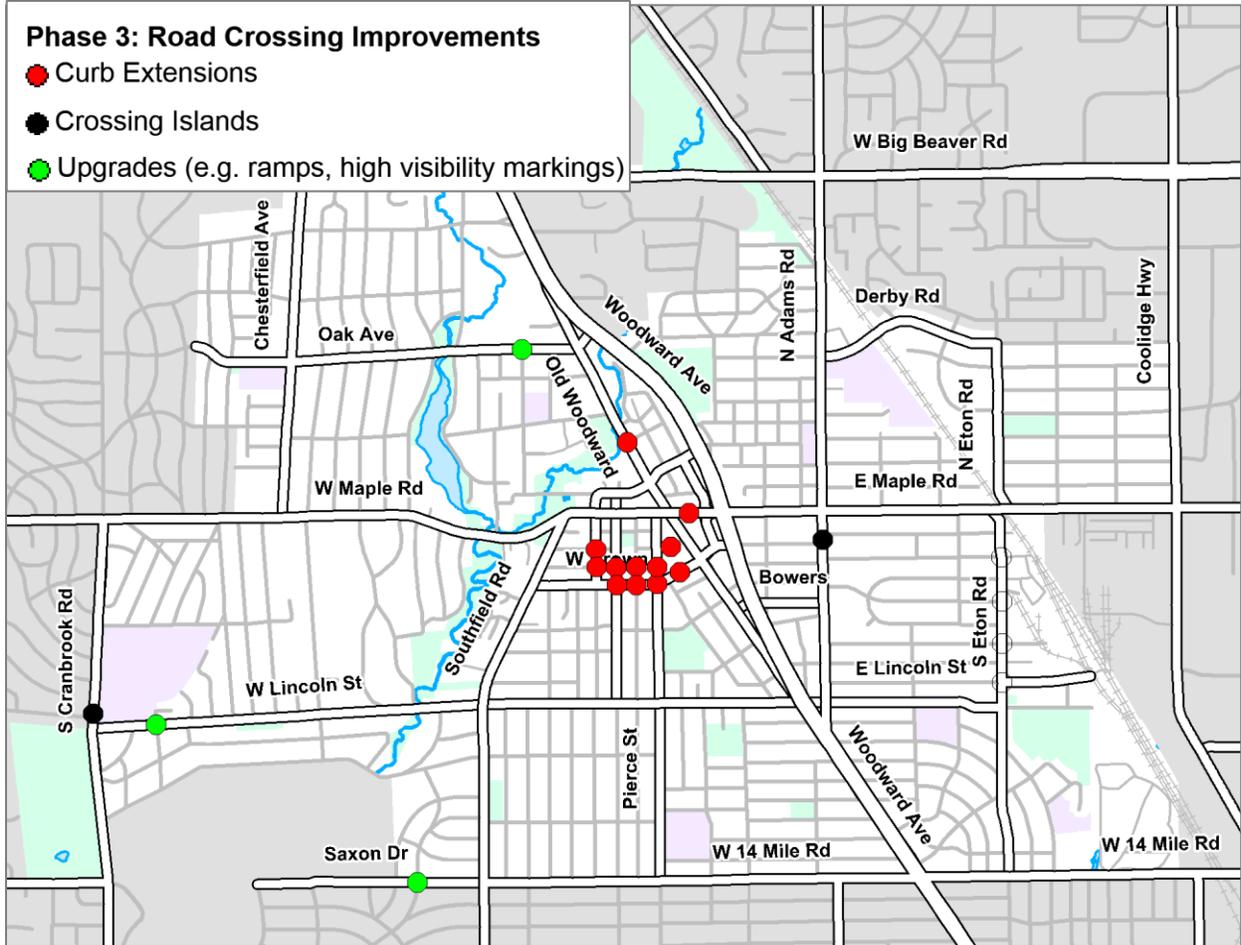
The remaining sidewalks and pathways are on City property, school property or in the road right-of-way.

In the future, whenever a site is redeveloped, non-motorized connections should be provided either as a sidewalk along a roadway with bike lanes or a shared-use pathway.



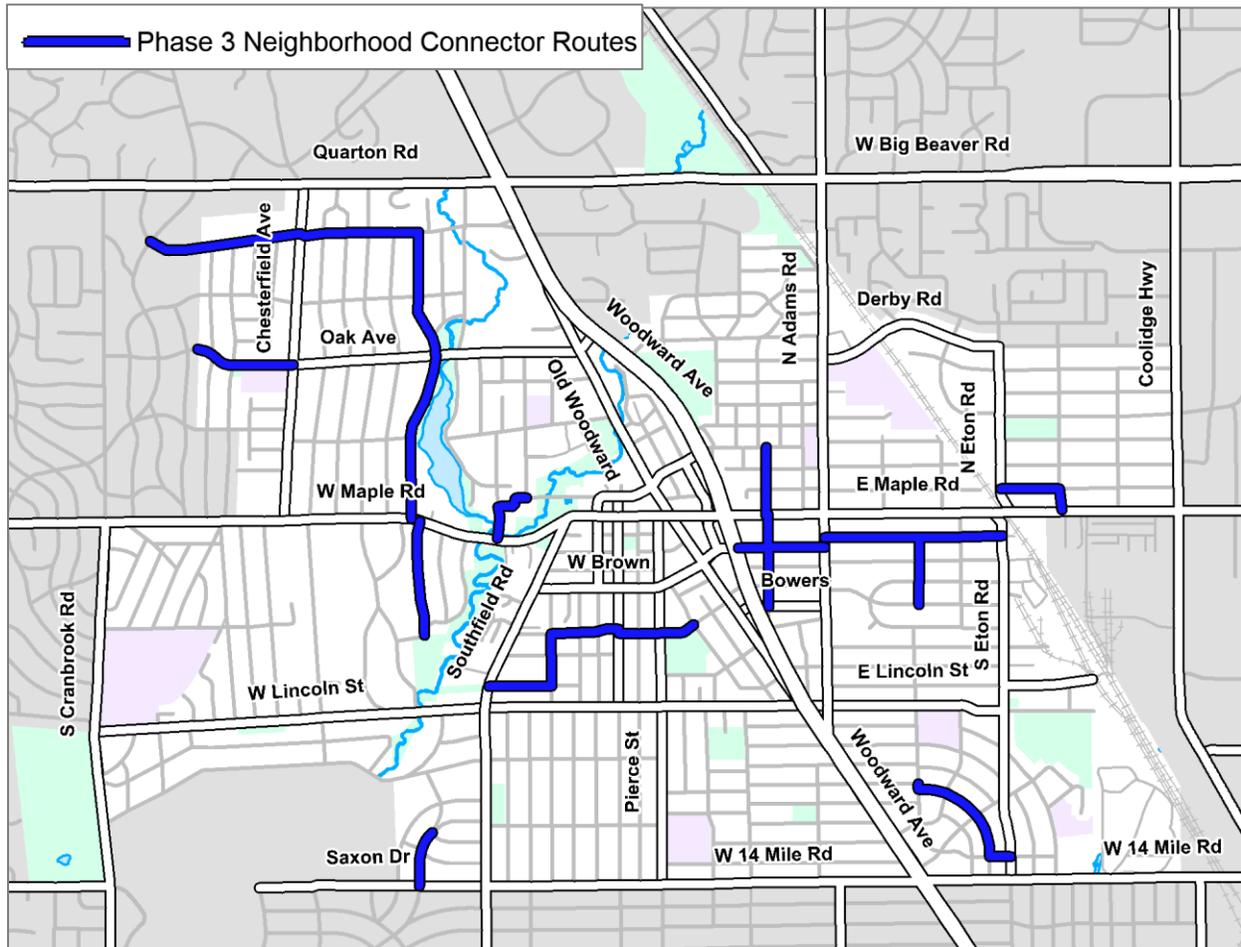
### PHASE 3: RECOMMENDED ROAD CROSSING IMPROVEMENTS

Many of the remaining road crossing improvements align with the neighborhood connector routes, provide mid-block crossings and increase visibility between motorists and pedestrians in the downtown.



**PHASE 3: RECOMMENDED NEIGHBORHOOD CONNECTOR ROUTES**

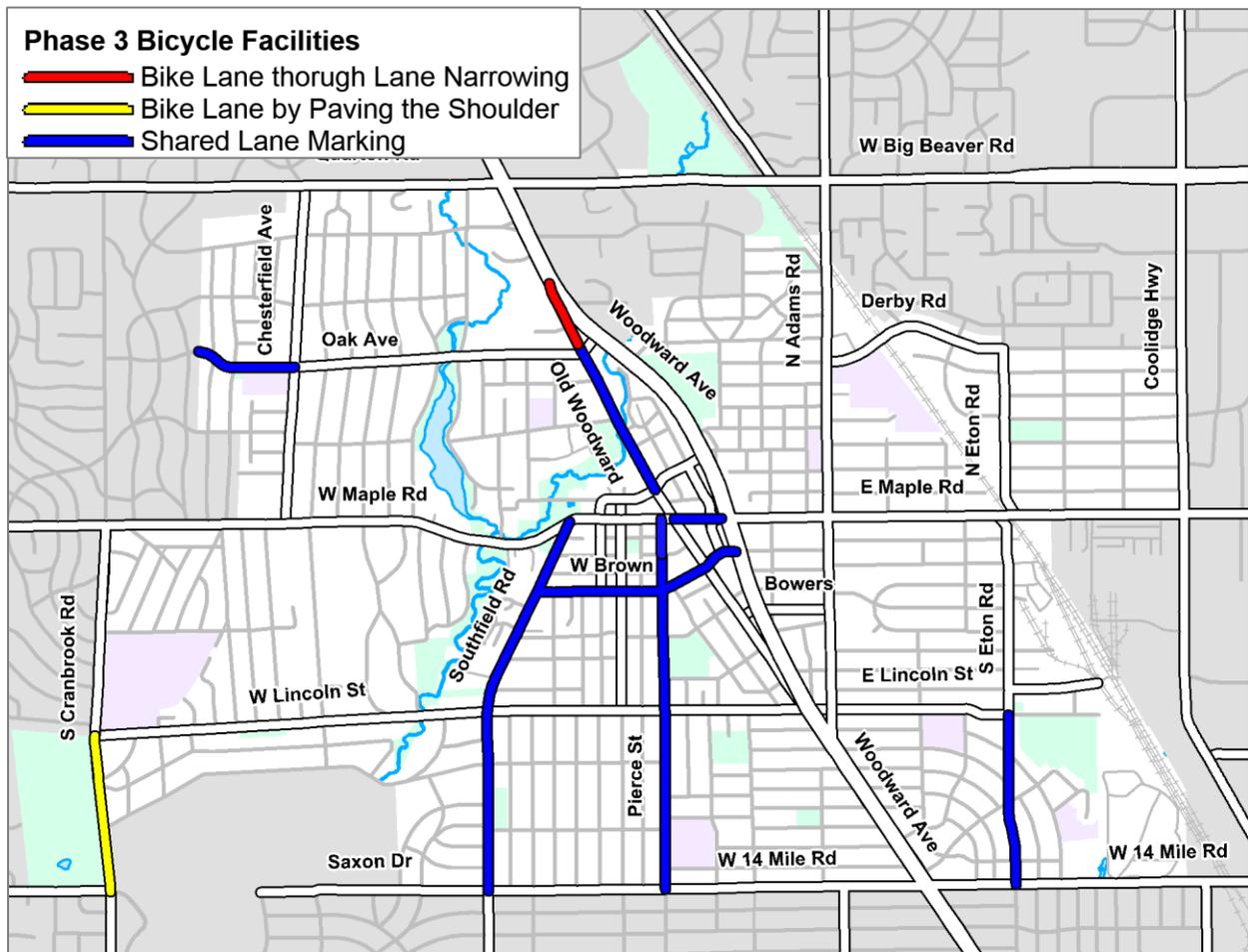
This phase focuses on completing the neighborhood connector routes. While the neighborhood connector routes are relatively easy and economical to implement some are dependent on the construction of proposed pathways and road crossing improvements. It will be important to prioritize the implementation of the neighborhood connector routes in this phase based on the progress of pathways implementation and road crossing improvements.



### PHASE 3: RECOMMENDED BICYCLE FACILITIES

With the exception of paving the shoulder on S Cranbrook Road, the remainder of the proposed bicycle facilities can be implemented quite easily within the existing roadway with pavement markings.

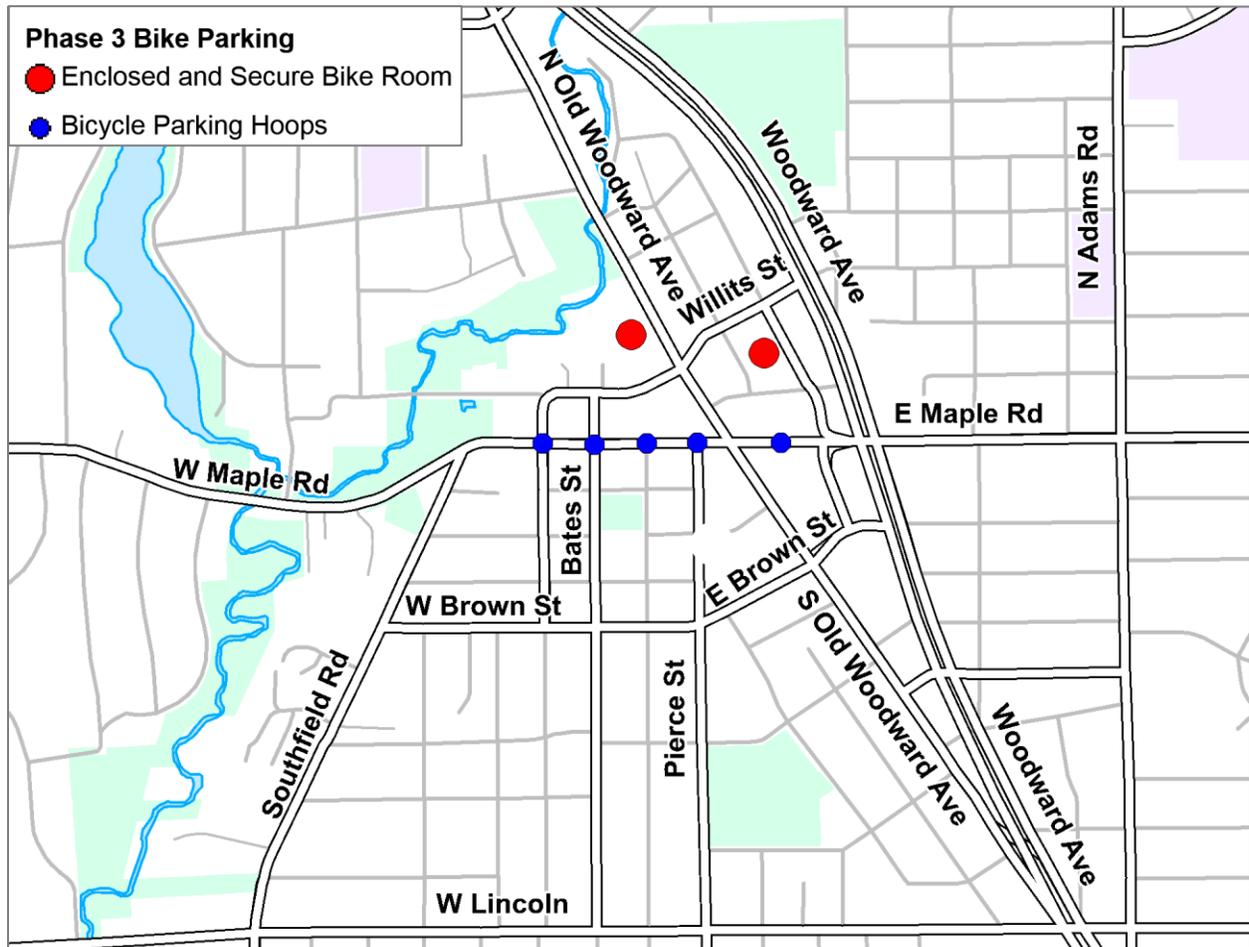
With time, as bicycle levels increase there may be a desire to add a designated bike lane in place of shared lane markings. For many of the roadways this would mean removing on-street parking or widening the roadway. Where the removal of on-street parking is not an option or not desired, the cost to add bike lanes to the roadway independent of a road reconstruction project would be significant. Thus to maximize the impact of finite resources bicycle lanes should be implemented when the road is completely reconstructed.



**PHASE 3: RECOMMENDED BICYCLE PARKING**

It is recommended that 2 bike racks be placed on each proposed curb extension along Maple Road in the downtown.

Based on the success of the proposed bike room in the Pierce Street Parking Garage, the City should evaluate if bike rooms should be implemented in other parking garages in the downtown.



### PHASE 3: RECOMMENDED ACTIVE TRANSPORTATION HUBS

As the multi-modal system begins to develop and the first two phases are complete, Active Transportation Hubs should be placed in key locations around town such as Booth Park, Millrace Park, outside City Hall and in the Rail District.

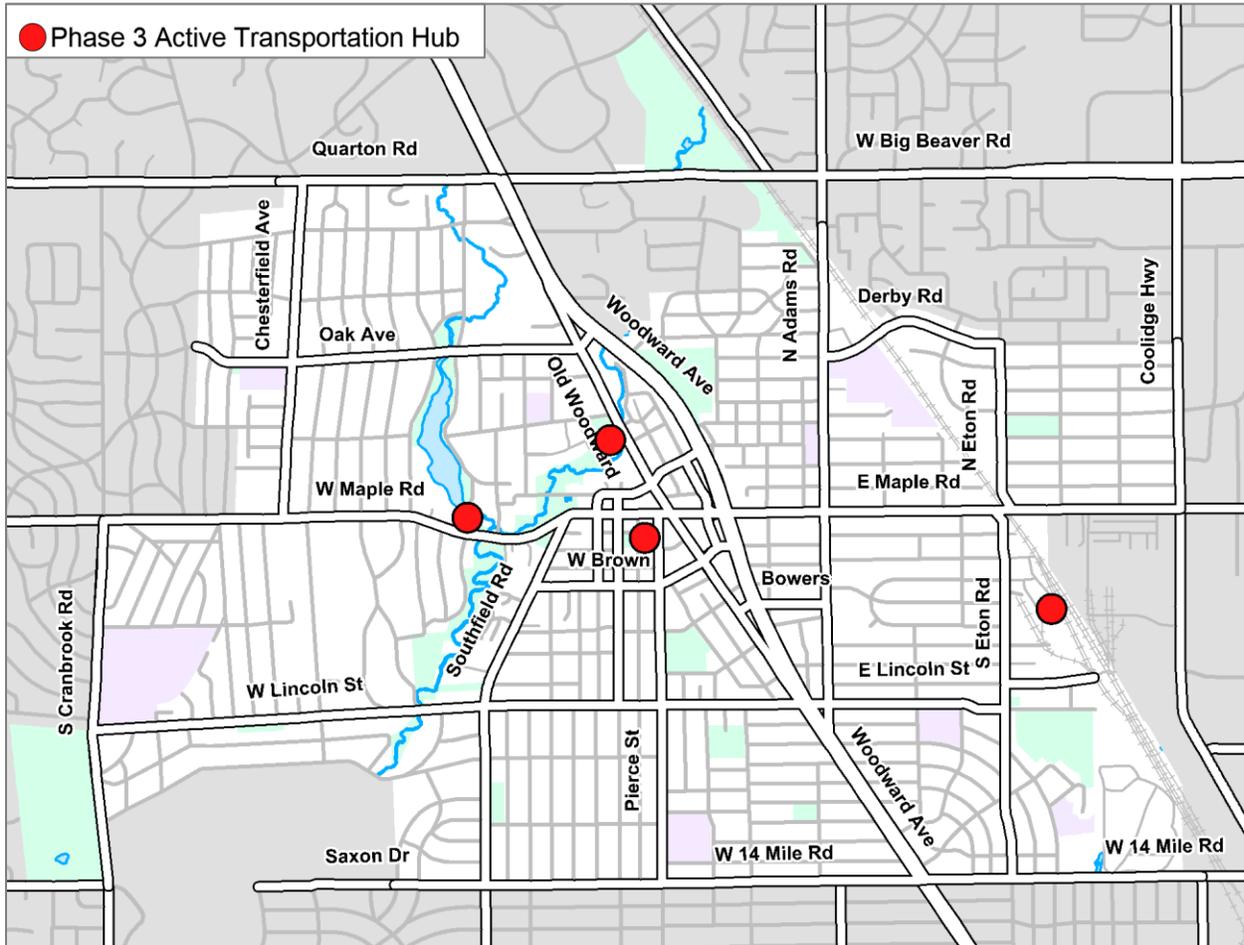
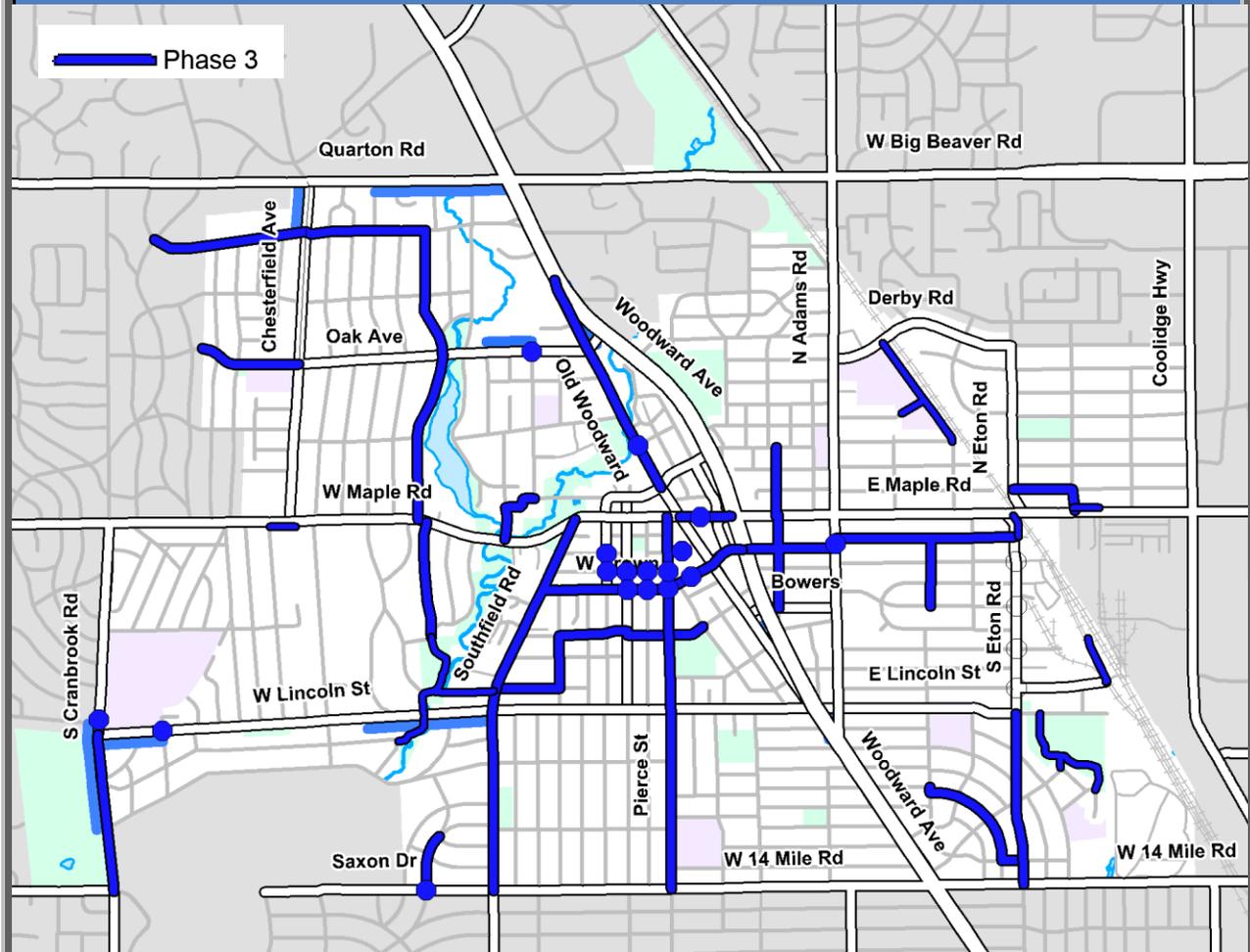


FIGURE 4.4B. PHASE 3 SUMMARY MAP



APPROXIMATELY 15 MILES OF NEW MULTI-MODAL FACILITIES ARE PROPOSED IN PHASE 3:

- 0.7 MILES OF BIKE LANES
- 4 MILES OF SHARED LANE MARKINGS
- 5 MILES OF NEIGHBORHOOD CONNECTOR ROUTES
- 1.3 MILES OF ASPHALT PATHWAYS
- 1.3 MILES OF SIDEWALK
- 17 ROAD CROSSING IMPROVEMENTS
- 4 ACTIVE TRANSPORTATION HUBS (NOT SHOWN ON MAP)
- 20 BICYCLE HOOPS (NOT SHOWN ON MAP)
- 2 BIKE ROOMS (NOT SHOWN ON MAP)

**4.5 PHASE 4**

**PHASE 4: OVERVIEW**

For some roads such as 14 Mile Road, E Maple Road, Quarton Road and Coolidge Highway there are limited cost effective solutions for some mode types in the near-term. In the future, when these streets are reconstructed they should be evaluated at that time to see what types of improvements are possible and desired.

Additionally, this report does not define the ideal long-term cross section for every primary road in the area. Rather it defines what near-term improvements should be included driven by public input and current best practices. In the future, when a roadway is reconstructed it should be re-evaluated to determine what multi-modal improvements are possible.

**FIGURE 4.5A. PHASE 4**

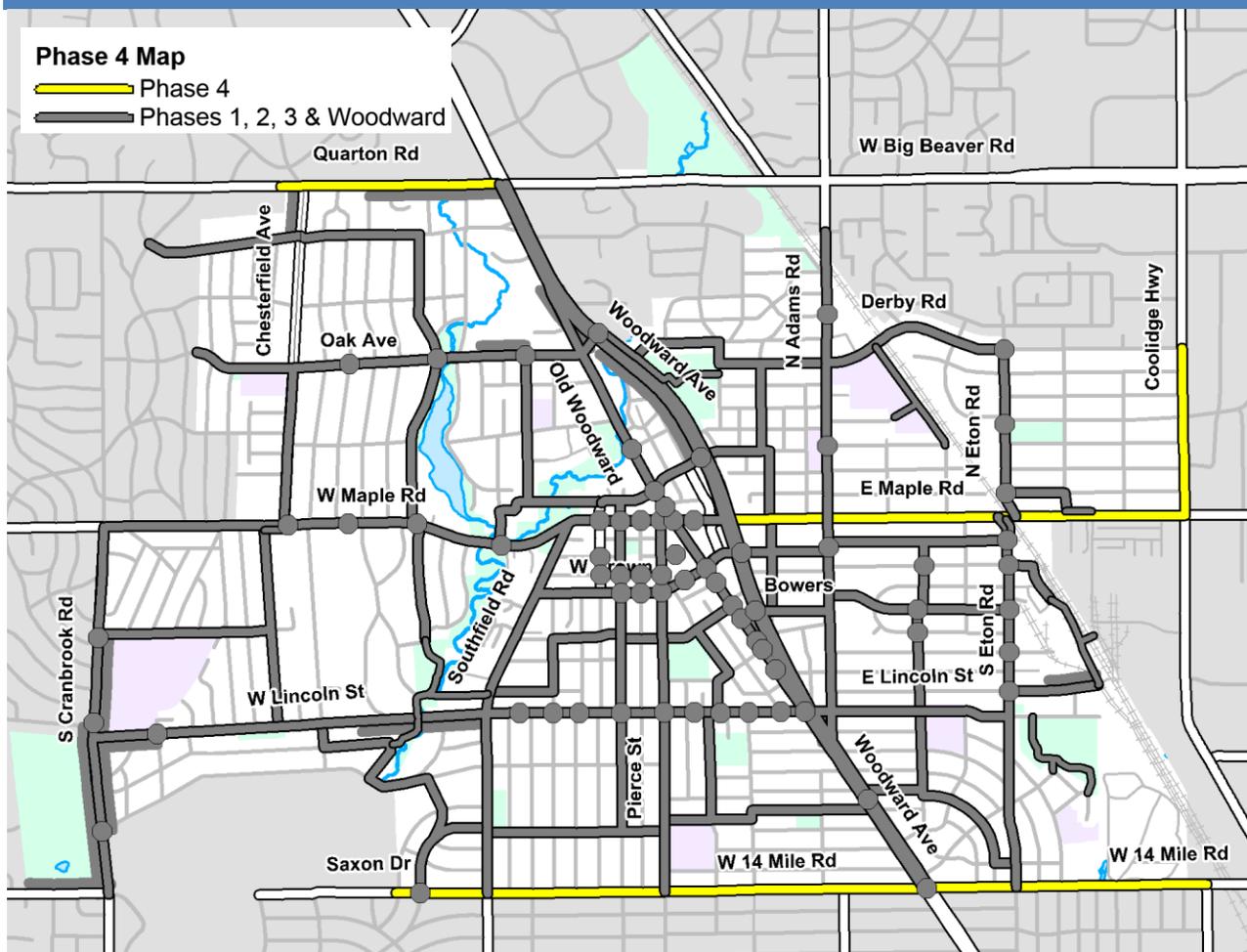
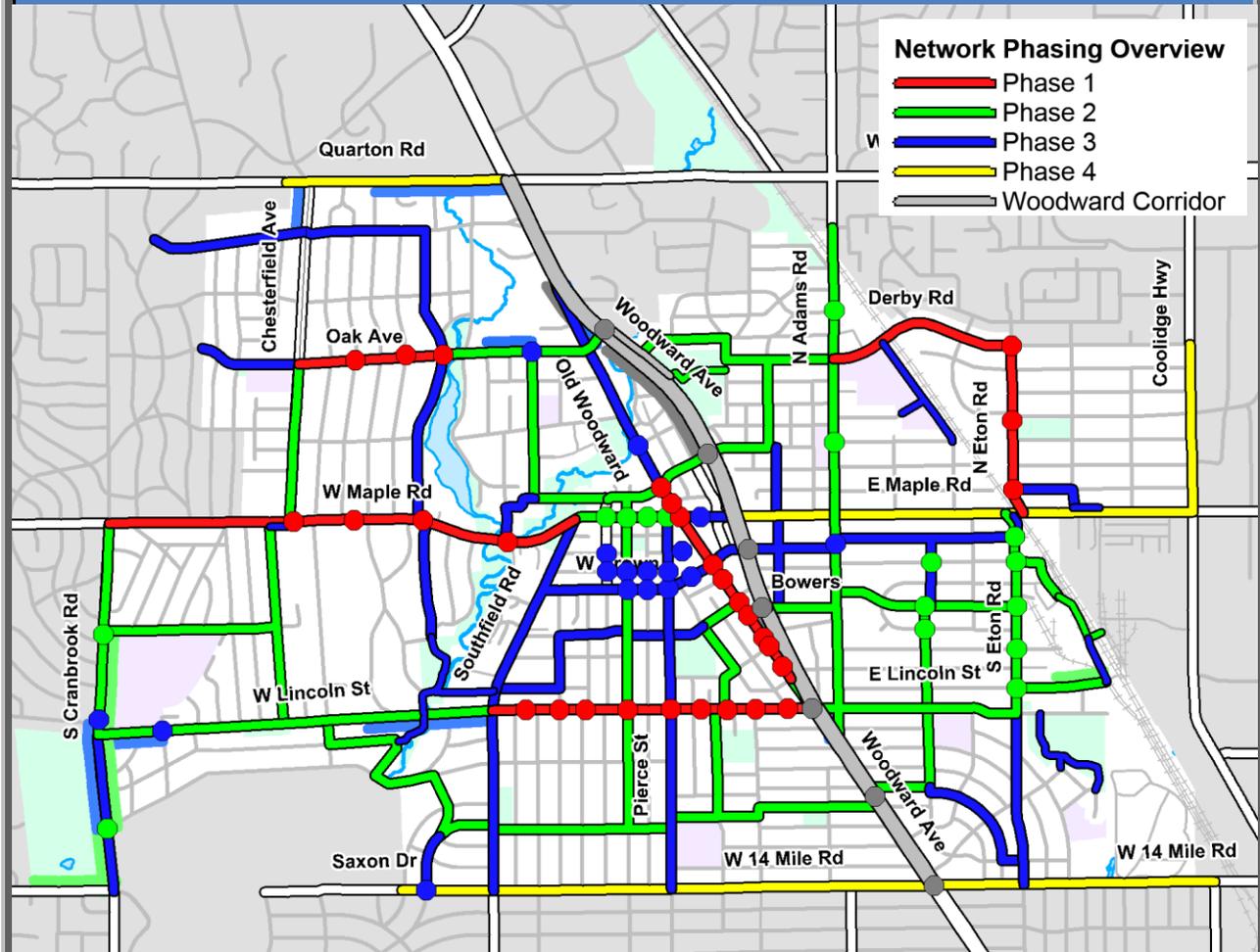


FIGURE 4.5B. NETWORK PHASING SUMMARY MAP



APPROXIMATELY 15 MILES OF NEW MULTI-MODAL FACILITIES ARE PROPOSED:

- 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)

**4.6 PHASE 1 AND 2 COST ESTIMATE OVERVIEW**

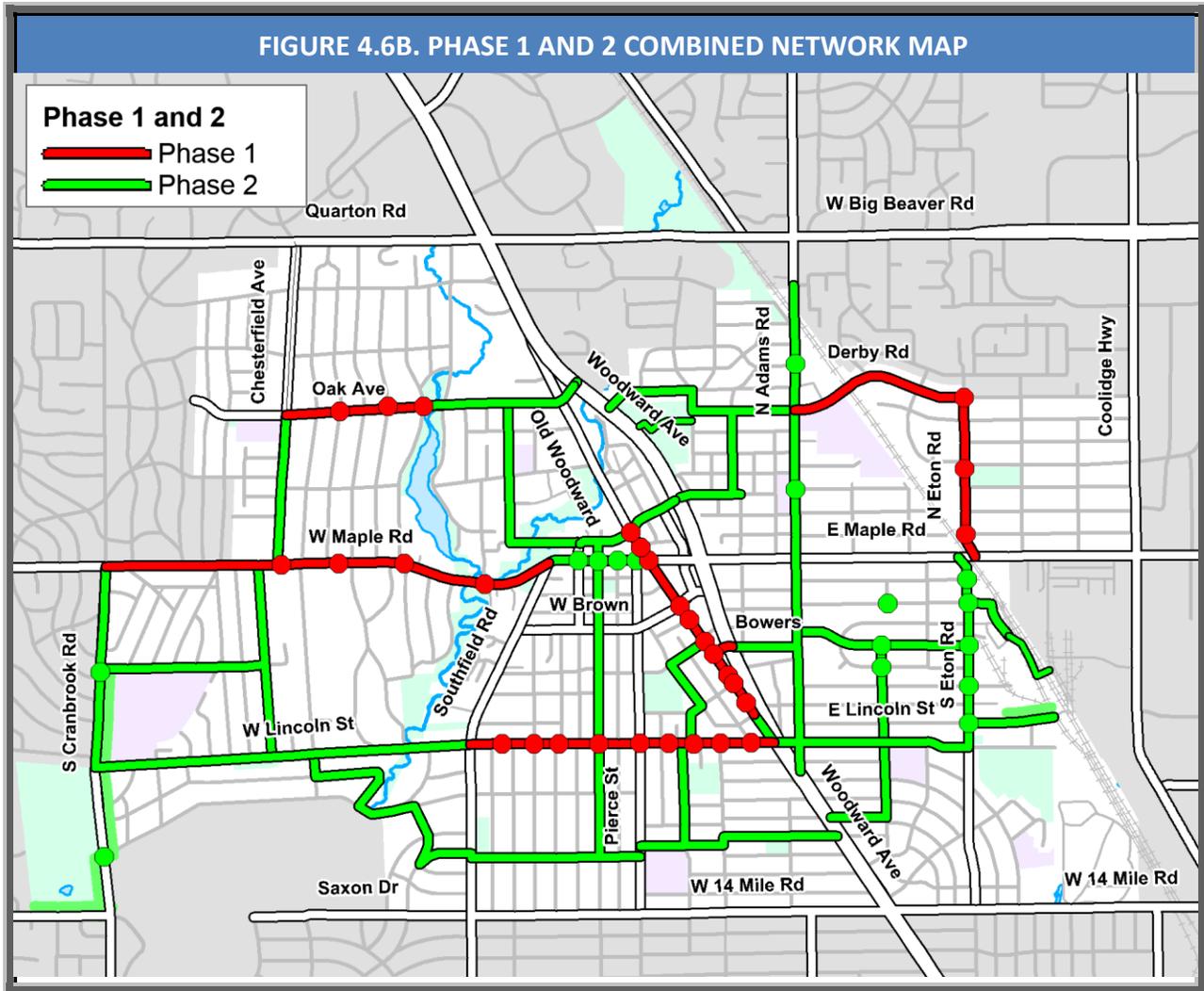
**COST ESTIMATE INTRODUCTION**

In order to illustrate magnitude of costs and begin planning and budgeting for implementation, planning level cost estimates have been completed for the improvements identified in Phase 1 and Phase 2. Due to the length of time it is going to take to complete the first two phases, cost estimates are not provided beyond this point.

Phase 1 and Phase 2 are estimated to cost around \$2,288,980. The following figure provides an overview of the costs estimated for this network.

FIGURE 4.6A. PHASE 1 AND 2 COST OVERVIEW		
<b>PHASE 1</b>		
Proposed Road Crossing Improvements	\$ 1,134,000	88%
Proposed Tree Extensions	\$ 60,000	5%
Proposed Transit Improvements	\$ 50,000	4%
Proposed Sidewalks	\$ 25,200	2%
Proposed Colored Shared Lane Markings	\$ 15,000	1%
Proposed Bicycle Parking	\$ 11,000	1%
<b>Total:</b>	<b>\$ 1,295,200</b>	<b>100%</b>
<b>PHASE 2</b>		
Proposed Road Crossing Improvements	\$ 559,000	56%
Proposed Pathways & Sidewalks	\$ 277,050	28%
Proposed Bike Facilities	\$ 68,090	7%
Proposed Neighborhood Connector Routes	\$ 49,140	5%
Proposed Bicycle Parking	\$ 40,500	4%
<b>Total:</b>	<b>\$ 993,780</b>	<b>100%</b>
<b>COST ESTIMATE FOR PHASE 1 AND 2</b>		
<b>Total:</b>		<b>\$ 2,288,980</b>

A detailed breakdown of the cost estimate for Phase 1 and Phase 2 can be found in the Appendix.



#### ACQUIRING RIGHT-OF-WAY

In Phase 2 an easement may be required to implement the proposed pathway connection between Villa Road and the future Troy Intermodal Transit Center. Please keep in mind that acquiring easements and/or right-of-way may add to the financial burden of implementation. In most cases, local business see the value to their own business and the community as a whole and are willing to provide a trail easement at no cost if the community assumes any liability. Easements should secure access in perpetuity or at a minimum the expected life-span of the improvement.



## SPECIFIC AREA CONCEPT PLANS

### OVERVIEW

The following concept plans were prepared to show how some of the ideas of the plan may be applied to specific areas. These concept plans should not be taken as completely developed designs. Rather, they are to illustrate a design idea. The areas shown may require separate design studies that may involve a more detailed investigation of the site conditions including public input and the development of alternatives and draft preliminary plans.

The following pages illustrate conceptual recommendations for specific areas.

---

#### TOPICS:

5.1	LINCOLN STREET	PAGE 118
5.2	WEST MAPLE ROAD	PAGE 120
5.3	WOODWARD AVENUE	PAGE 122
5.4	DOWNTOWN	PAGE 130

**5.1 LINCOLN STREET**

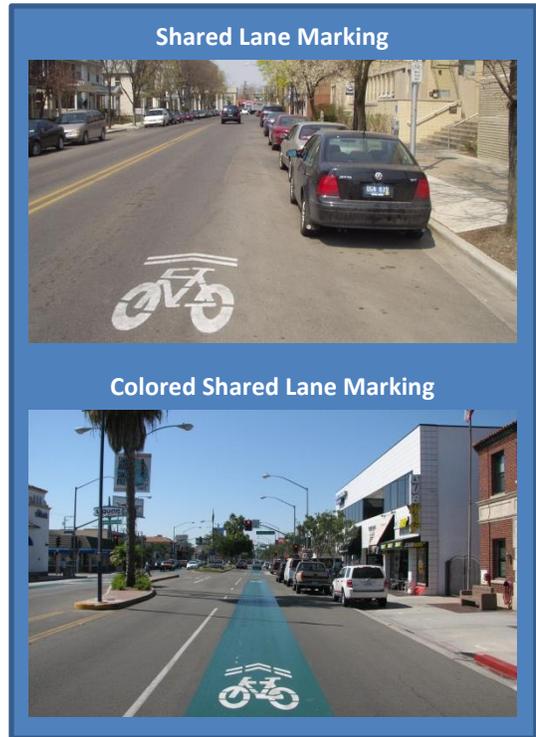
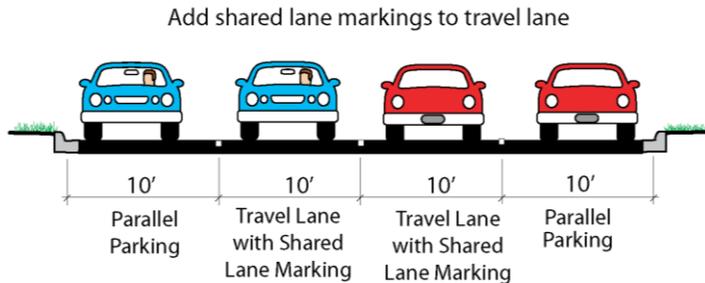
The following concept plan is for the segment of Lincoln Street between Southfield Road and Woodward Avenue, which is going to be resurfaced in 2014.

**PROPOSED BICYCLE FACILITIES:**

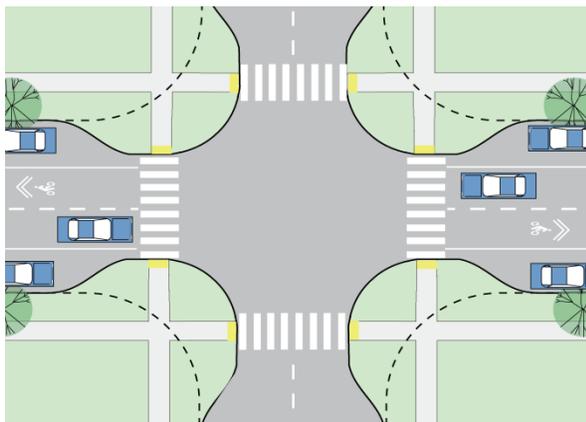
Shared Lane Markings are proposed for Lincoln Street between Southfield Road and Ann Street.

Colored Shared Lane Markings are proposed for Lincoln Street between Ann Street and Woodward Avenue.

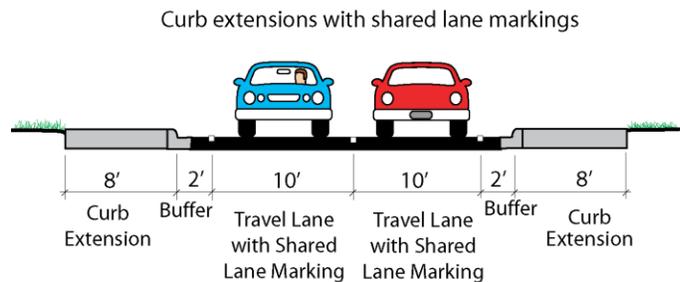
The following is a recommendation of how the road should be restriped when it is resurfaced in 2014. All measurements for Lincoln are to face of curb.



**PROPOSED CURB EXTENSIONS:**

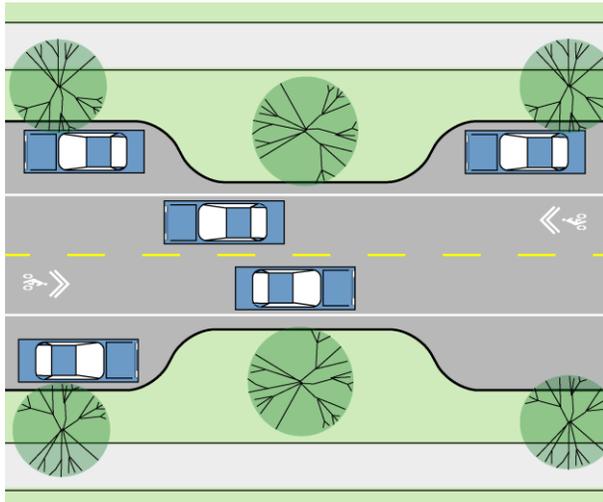


Curb extensions are proposed at Maryland Boulevard, Bates Street, Pierce Street, Grant Street and Ann Street.

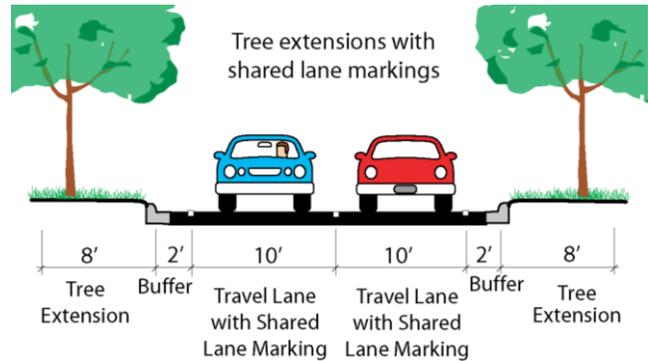


At intersections where curb extensions are not proposed the existing pavement markings should be maintained.

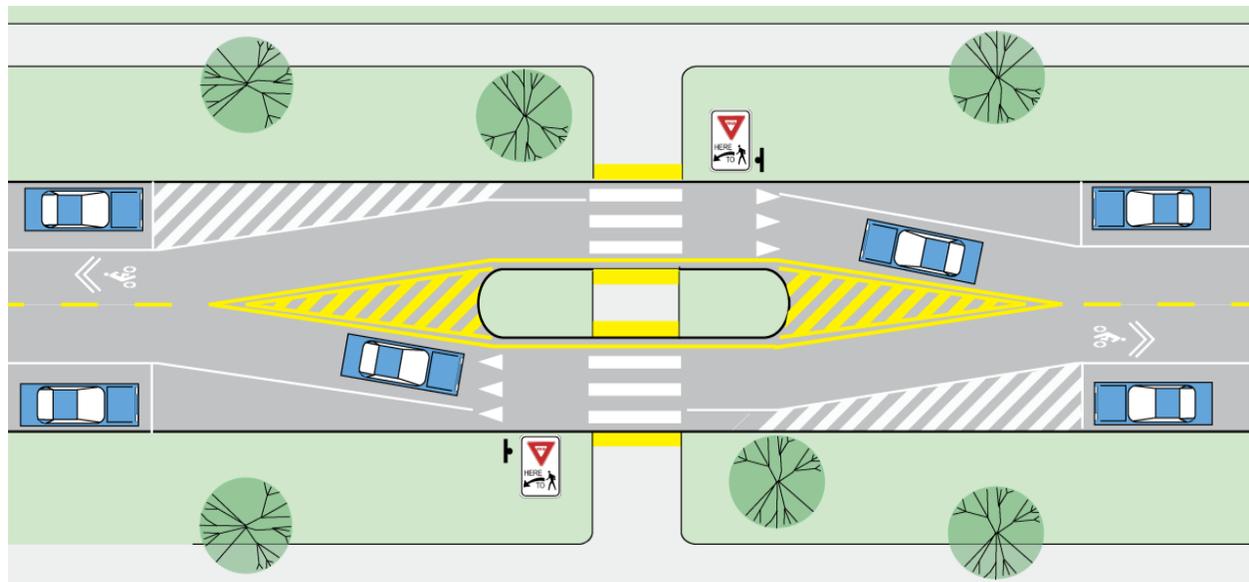
PROPOSED TREE EXTENSIONS:



Tree extensions are proposed mid-block between Clark Street and Lincoln Court and between Shipman Blvd and Birmingham Blvd.



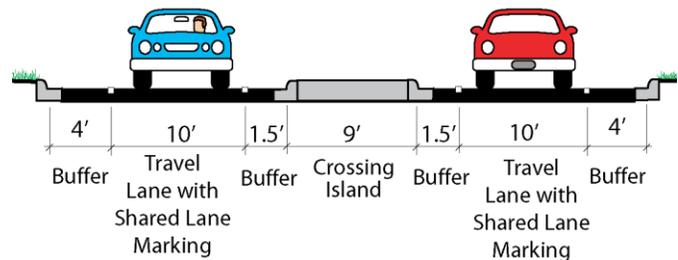
PROPOSED CROSSING ISLANDS:



\*PLAN VIEW CONDENSED FOR ILLUSTRATION PURPOSE - TAPER LENGTH AS PER AASHTO GUIDELINES

Crossing islands are proposed at Stanley Boulevard and on the east side of the intersection at Floyd Street.

Crossing Island with shared lane markings

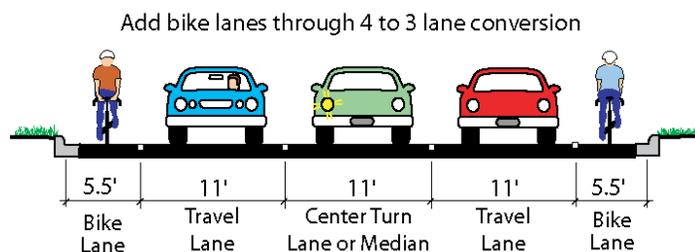


**5.2 WEST MAPLE ROAD**

The following concept plan is for the segment of W Maple Road between Cranbrook Road and Southfield Road, which is going to be resurfaced in 2015.

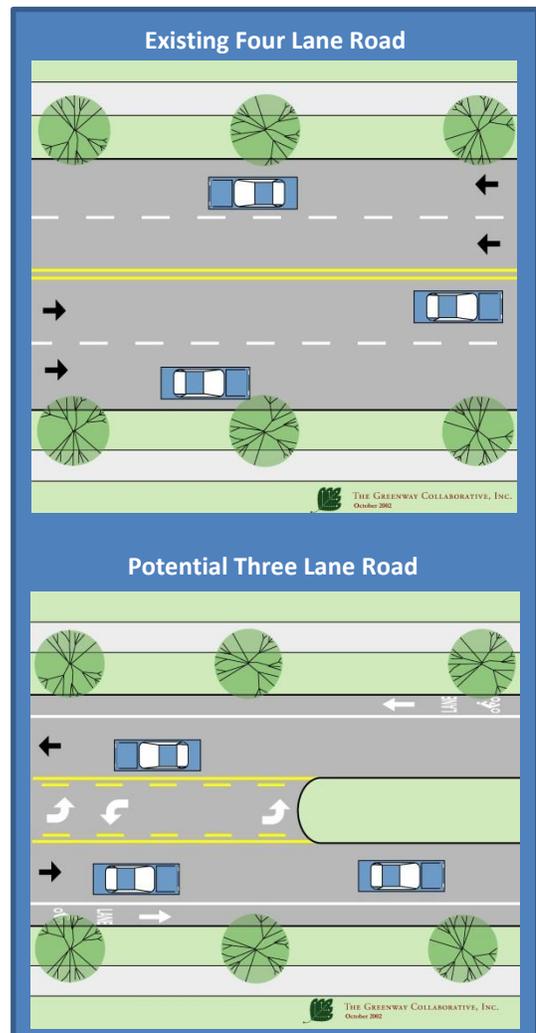
**PROPOSED BICYCLE FACILITIES:**

A four-lane to three-lane conversion is proposed on W Maple Avenue between Waddington Street and Southfield Road.

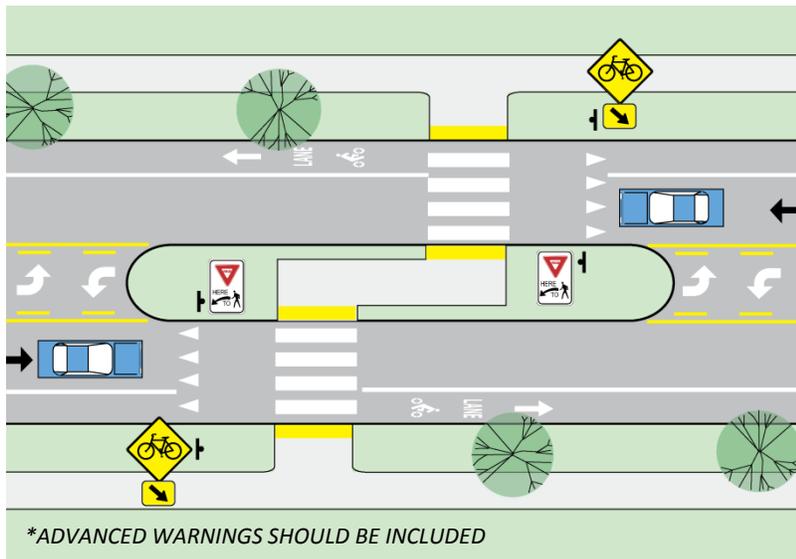


The existing road cross-section should be maintained on W Maple Avenue between Waddington Street and Cranbrook Road in order to allow for motor vehicle stacking at the intersection. A shared lane marking is proposed along this segment, along with signage directing bicyclists to a neighborhood connector route where the bike lane ends and the shared lane marking begins.

**Please note that W Maple Road between Cranbrook Road and Southfield Road is at the cusp of where a four-lane to three-lane conversion will function. Additional analysis of the corridor is necessary to determine if the conversion is feasible.**



PROPOSED CROSSING ISLANDS:



Crossing islands with rectangular rapid flash beacons are proposed on W Maple Road at:

- Baldwin Road
- Chesterfield Avenue
- Suffield Dr/Pilgrim Ave
- Lake Park Dr/Linden Rd

Please note that this is assuming the existing signal at Lake Park Drive will be removed with the proposed four to three lane conversion.

Rectangular Rapid Flash Beacon



A crossing island is also proposed at Chesterfield Avenue where there is an existing signal.

Bus stops along W Maple Road should be relocated to be closer to the proposed road crossings.

### 5.3 WOODWARD AVENUE

Concurrent with the development of this plan are two regional planning efforts that address the entirety of Woodward Avenue to determine how this iconic corridor can integrate new transit alternatives and become a true complete street. The recommendations in this report are to help inform those studies. While Woodward Ave’s transition to a true complete street will take some time, some elements, such as improving the crossing at Oak Street can be undertaken immediately that will provide safety and mobility improvements.

During the Visioning Workshop participants were asked about their vision for the Woodward and overall there was a desire to create more of a “Main Street” feel along the corridor. Some of the key items that were identified for this corridor included parallel parking, a designated transit lane, sidewalks, landscape buffer and a designated bicycle facility in the form of a bike lane or one-way cycle track.

#### CONCEPTUAL DESIGN:

Using the space between the buildings and the travel lanes, a “Main Street” area within the Woodward Corridor is created. The following conceptual design provides a more pedestrian scaled area that incorporates on-street parking with a service drive, sidewalk, and bike lane that are all buffered from Woodward Avenue by a landscaped median and transit lane.



KEY ELEMENTS:

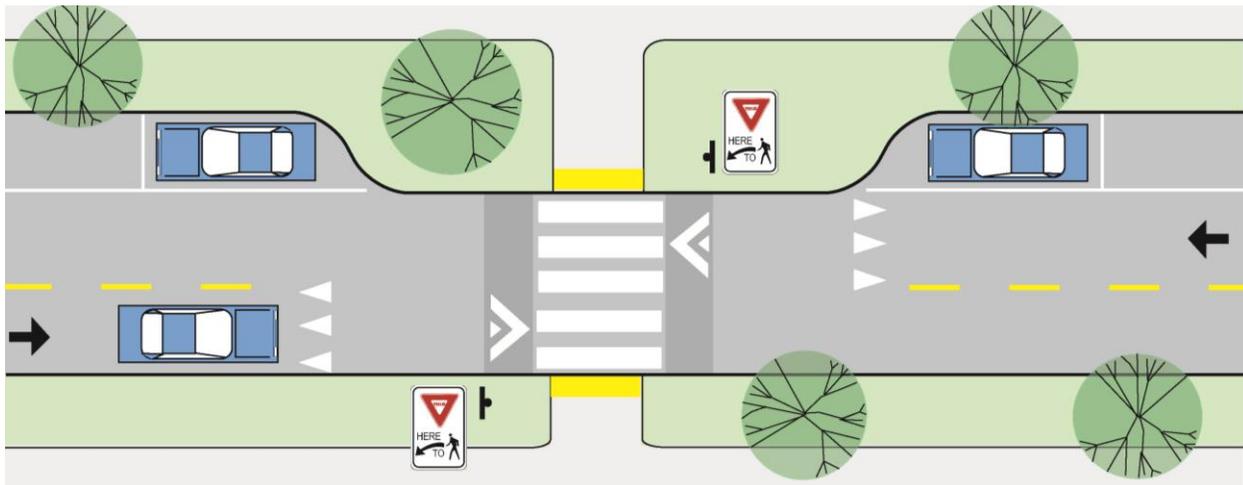
- Parallel parking between the service drive and sidewalk
- 8' wide sidewalk
- 8' wide landscape buffer with areas for transit stops
- Outside motor vehicle lane designated as transit lane
- Bike lane along left side of service drive and buffered from Woodward Avenue
- Trees and café areas extend into parking spaces as appropriate for context
- Curb extensions and pedestrian crosswalks provided at transit stops
- Bicycle parking provided on curb extensions near transit stops
- Pedestrian scale street lighting with flower baskets and/or banners
- Decorative brick pavers used in the service drive and parking areas
- "Pork-chop" diverters provided in unused areas of intersection where local roads intersect Woodward Avenue at an angle
- Green pavement markings placed in areas where there is potential for conflict between bicycle and automobiles to increase visibility of the bike lanes



PROPOSED ROAD CROSSING IMPROVEMENTS ON WOODWARD AVENUE:

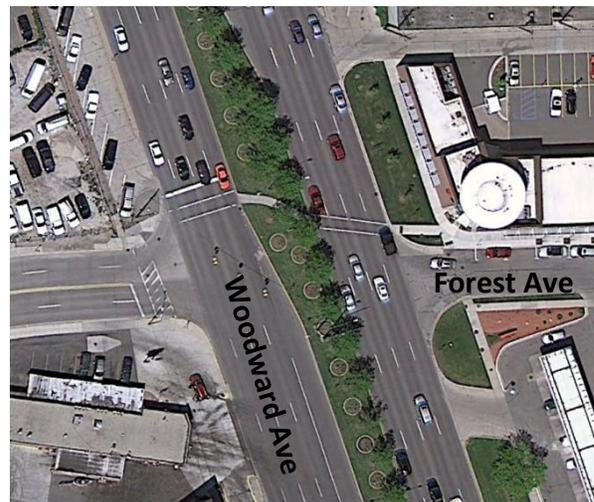
**A raised crosswalk is proposed across the service drive on the northeast corner of Woodward Avenue and E Maple Road.**

Raised crosswalks are crosswalks constructed 3” to 4” above the elevation of the street and serve as a traffic calming measure by extending the sidewalk across the road and bringing motor vehicles to the pedestrian level. By extending the sidewalk across the road at an elevation the raised crosswalk reduces vehicle speeds and improves pedestrian visibility.



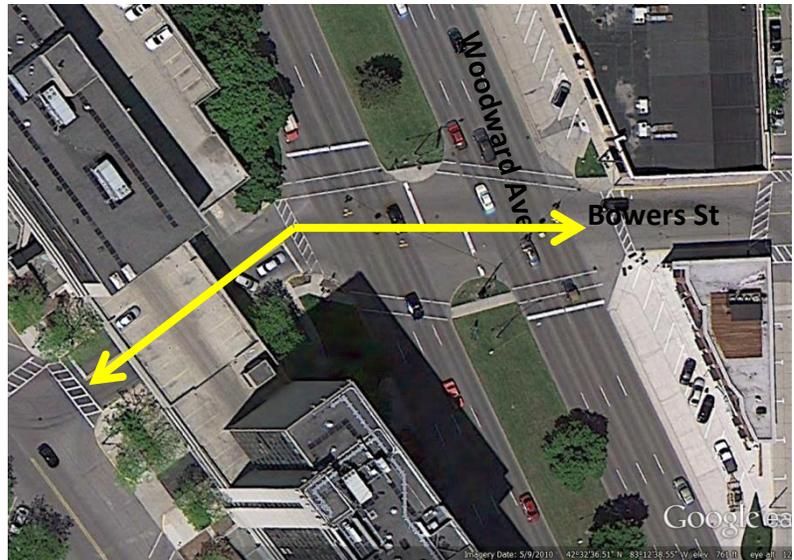
**The Michigan Department of Transportation has proposed a full traffic signal in both directions at or near the intersection of Forest Avenue.**

Currently, southbound traffic is stopped at the crosswalk by a signal, but the northbound traffic is not controlled by a signal. Pedestrians crossing the four northbound lanes at a gap in traffic frequently conflict with motorists turning right from Forest Avenue.

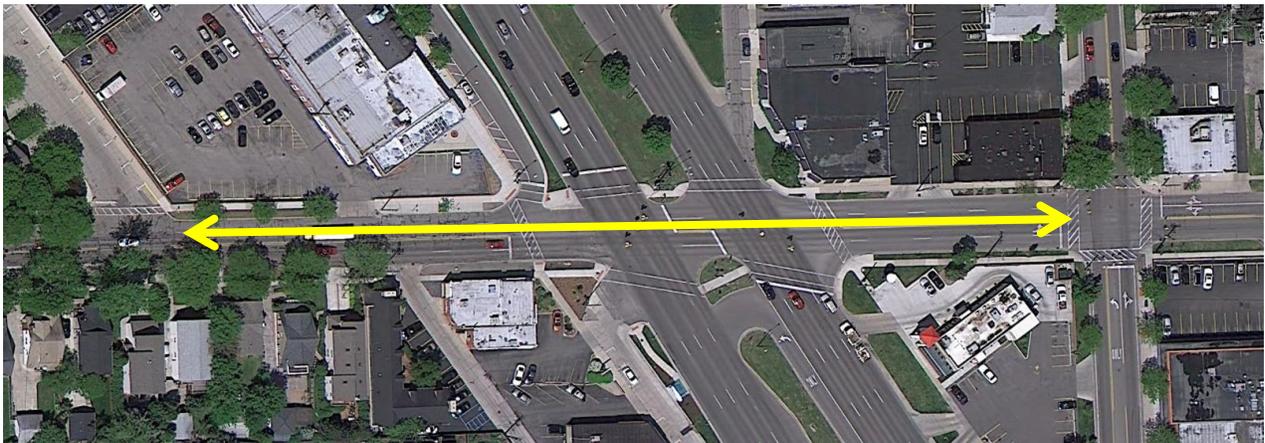


**Colored Shared Lane Markings are proposed on Bowers Street through the Woodward Avenue intersection to help bicyclists cross the road.**

Colored pavement with Shared Lane Markings increases visibility of the facility identifies potential areas of conflict and reinforces priority to bicyclists through the intersection.



**Colored Shared Lane Markings are proposed on E Lincoln Street between Ann Street and Adams Road to help bicyclists navigate through the intersection.**



Colored pavement with Shared Lane Markings increases visibility of the facility, identifies potential areas of conflict and reinforces priority to bicyclists in conflict areas.

This improvement may be implemented as part of a 2014 road resurfacing project as noted under CIP Opportunities.

**A new pedestrian signal is proposed at Oak Avenue to help pedestrians and bicyclists cross Woodward Avenue.**

Currently, there is a signal at Oak Avenue on Woodward Avenue but no pedestrian crossing. It is important to provide a crossing here, as it is part of the east-west neighborhood connector route along Oak Avenue and Derby Road that provides an alternative to Maple Road. Also, there are limited road crossing opportunities on Woodward Avenue between Maple Road and Quarton Road.

### CONCEPTUAL ROUTING:



**Provide Enhancements to the Pedestrian Environment at Road Crossings along Woodward Avenue.**

Due to Woodward Avenue’s significance as a regional motor vehicle corridor it should be noted that there is not much that can be done to change the signal timing and it should be expected that most pedestrians will probably end up spending a cycle of the light in the median. Waiting in the median of Woodward Avenue can be an intimidating environment for pedestrians so enhancements should be made if pedestrians are expected to spend any period of time out there. In order to provide a better sense of enclosure and protection and make the median more pedestrian friendly the following enhancements should be considered:

- Art
- Landscaping
- Low retaining walls that provide seating opportunities and a physical separation from the roadway
- Overhead structures that add visual interest and enclosure

All enhancements should be designed such as to not impede visibility between pedestrians and motorists.



IN THE CITY OF FERNDALE A CROW'S NEST SCULPTURE WAS INCORPORATED IN THE MEDIAN AT WOODWARD & 9 MILE

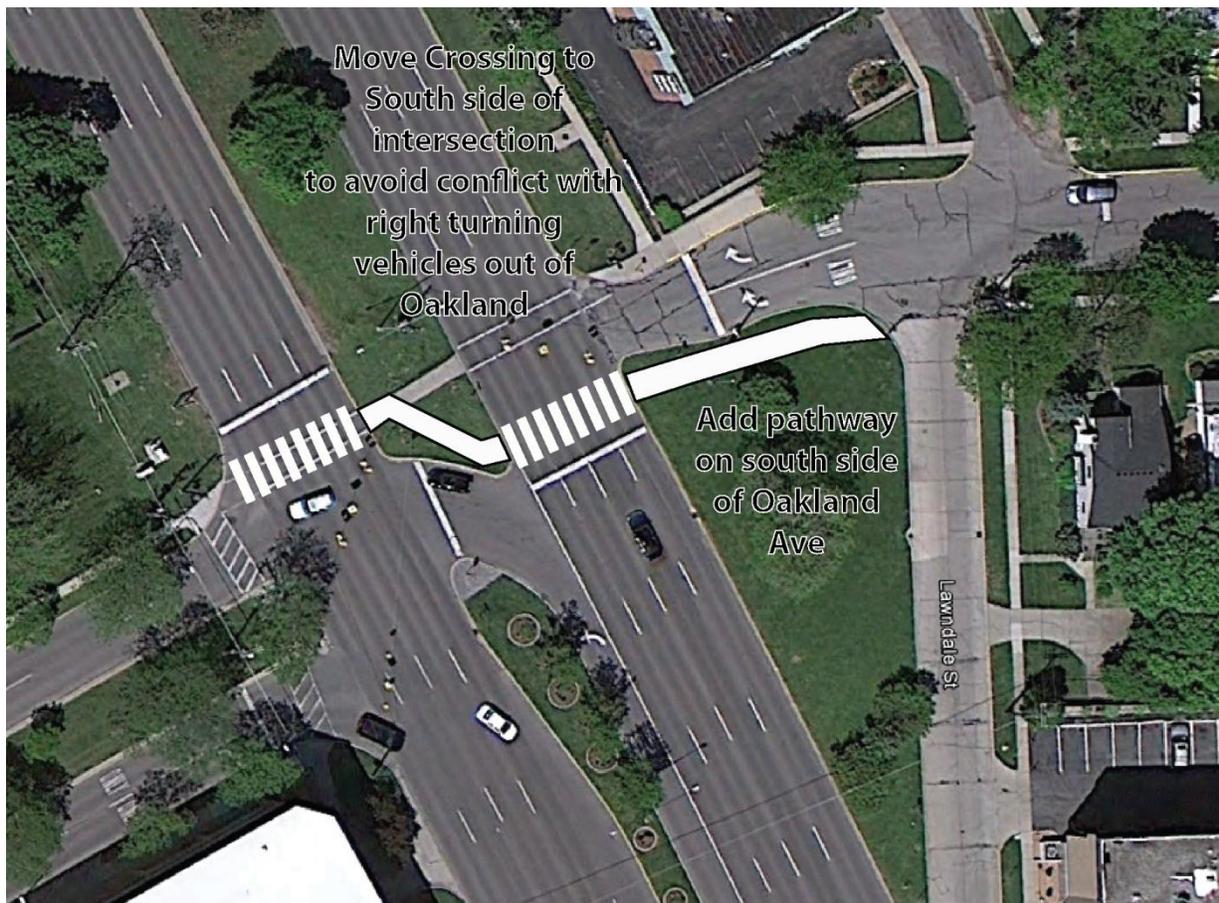


A SHELTER IS PROVIDED IN THE MEDIAN ON GRAND RIVER IN EAST LANSING

## Provide for two-way bicycle traffic at intersection with Oakland Avenue

Oakland Avenue is indicated at a bike route connecting downtown to the neighborhoods on the west side of Woodward Avenue. Presently, Oakland is one-way for one block just east of Woodward Avenue and is comprised of two right-only turn lanes. This presents a number of challenges. First, the right turning movements from Oakland Avenue to northbound Woodward Avenue conflict with pedestrians and bicyclists in the crosswalk. Second, east-bound bicyclists crossing Woodward are forced onto a narrow sidewalk and have an awkward entrance back onto Oakland Avenue.

To address this situation, the crosswalk on north-bound Woodward is proposed to be moved to the south side of the intersection. This eliminates the conflict with right turning vehicles from Oakland Avenue onto north-bound Woodward Avenue. Also, a shared-use pathway is proposed on the south side of Oakland Avenue for the one block which the road is one-way to allow bicyclists to by-pass this one block and easily merge back into the two-way traffic east of Lawndale Street.

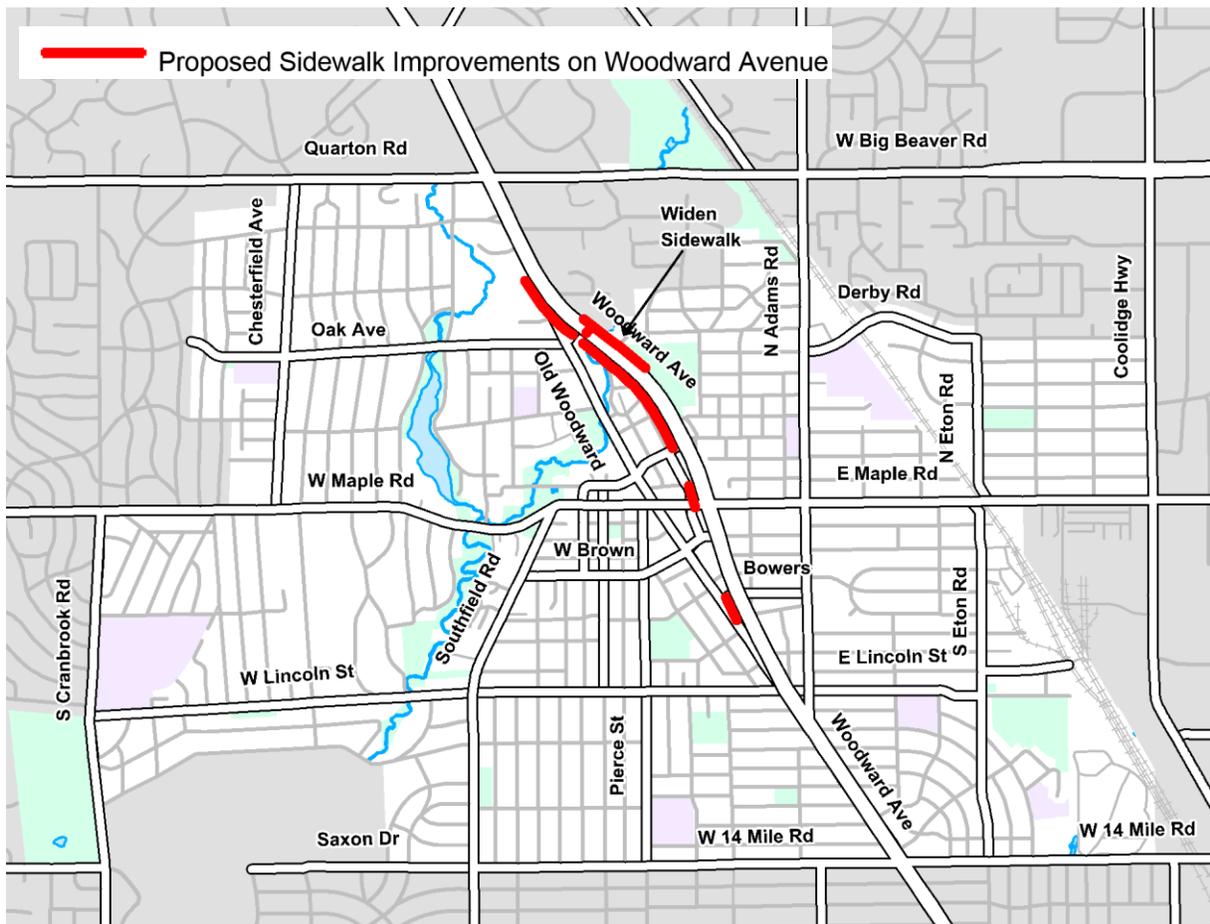


---

**PROPOSED SIDEWALK IMPROVEMENTS ON WOODWARD AVENUE:**

It is recommended that the City of Birmingham work with MDOT to implement the proposed sidewalk improvements.

- Complete sidewalk gaps along the west side of Woodward Avenue in the City of Birmingham
- Widen Sidewalk on east side of Woodard Avenue between Oak Avenue and the proposed pathway in Poppleton Park to 10' wide to accommodate bicycle and pedestrians. When implementing it is probably more appropriate to remove the old sidewalk and rebuild a new 10' wide pathway for this segment.




---

**WOODWARD AVENUE IMPLEMENTATION:**

Since Woodward Avenue is under MDOT jurisdiction it is recommended that the City of Birmingham work with MDOT to ensure the proposed recommendations along Woodward Avenue are implemented.

## 5.4 DOWNTOWN

Downtown Birmingham contains many of the elements of a bicycle and pedestrian friendly downtown such as short street blocks, small shops and business that line the street, seating and other amenities. The design of the downtown environment has a direct effect on the degree to which people enjoy walking, biking and taking transit. If designed appropriately, the environment serves not only the people who currently walk, bike and use transit but also entices those who do not.

### PEDESTRIAN IMPROVEMENTS:

One of the biggest inhibitors to pedestrian activity in the downtown is the stepped curb. Stepped curbs are located in numerous areas in the downtown and present hazardous situations for some pedestrians, especially when they are located at crosswalks where there are no ramps. The near-term recommendation is to remove the stepped curb by installing curb extensions with ramps at road crossings. In the long-term the stepped curb should be eliminated through the downtown by re-grading the road.

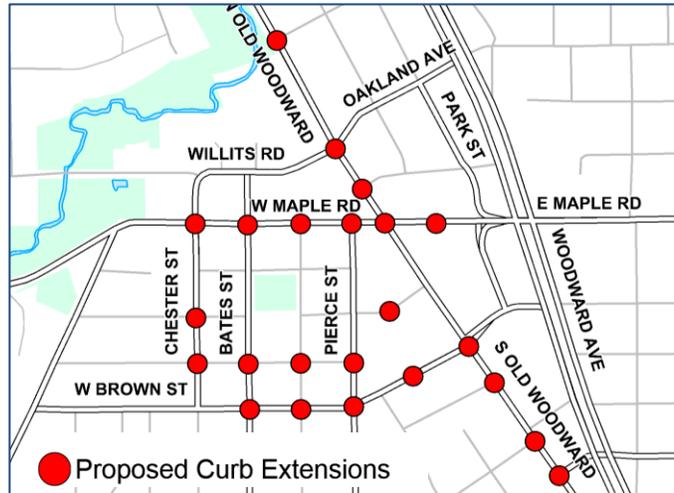


The entrance to the City parking garage located on Martin Street between Southfield Road and Chester Street presents a challenging environment for pedestrians. Due to the numerous entrances to the parking garage there is no indication for pedestrians on how to navigate across the entrance.



It is recommended that high visibility crosswalks markings be painted across the parking garage entrance as well as providing a sidewalk across the “pork chop” diverter island located between the parking garage entrances.

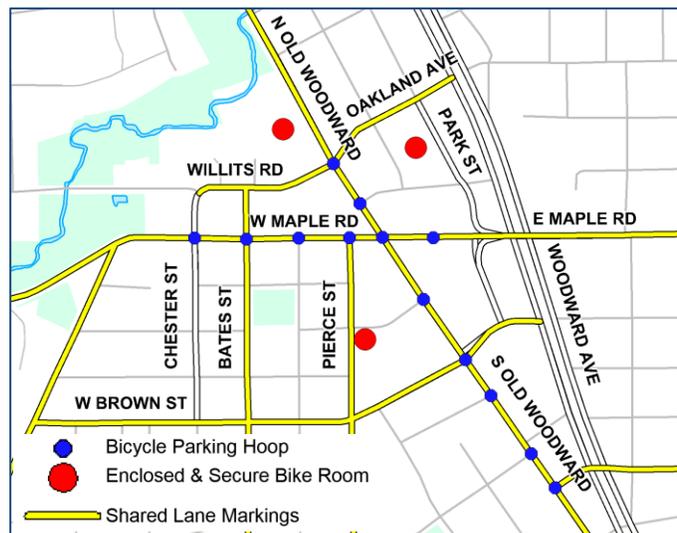
As previously noted, curb extensions are proposed throughout the downtown as a near-term solution to the stepped curbs. Curb extensions also shorten crossing distances for pedestrians and increase visibility between pedestrians and motorists at intersections. The following map shows all of the locations for proposed curb extensions in the downtown. Please note that some of the proposed curb-extensions align with the City of Birmingham’s Alley & Passages Plan 2012.



**PROPOSED BICYCLE FACILITIES:**

Due to the limited road width and demand for on-street parking, Shared Lane Markings are proposed in the downtown on Maple Road, Old Woodward Avenue, Willits Road, Oakland Avenue, Bates Street, Brown Street, and Pierce Street.

In 2012, the City installed an extensive number of bicycle hoops. In addition to these hoops, 44 bike hoops are proposed in the downtown area in coordination with the proposed curb-extensions. The City has also been experimenting with seasonal bicycle parking. Seasonal bike racks should be placed where there are large curb extensions or adjacent to outdoor dining decks.



For long-term bicycle storage, enclosed and secured bike rooms are proposed in the City’s parking decks. Initially, a bike room should be installed in the Pierce Street Parking Garage, and if successful, additional rooms should be placed in other parking garages in the downtown.

---

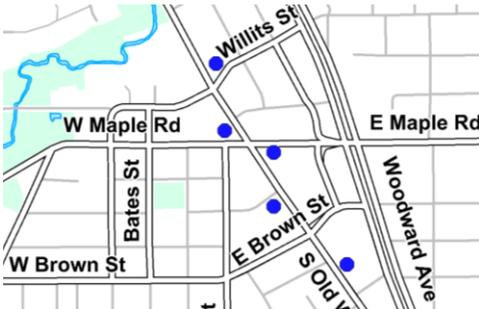
ROADWAY IMPROVEMENTS:



It is recommended that Park Street between Hamilton Row and Maple Road be changed from a one-way street to a two-way street and the intersection reconfigured so Park Street meets Maple Road at a 90 degree angle.

---

TRANSIT IMPROVEMENTS:



Five bus shelters are proposed in coordination with the proposed curb extensions on Maple Road and Old Woodward in the Downtown.

---

WAYFINDING:



An Active Transportation Hub is proposed near the City Hall to serve as a resource center for multi-modal transportation in the City. While placing the hub right at city hall would be ideal, in order to preserve the buildings character it is recommended that the hub be placed on the southeast corner of Pierce Street and Merrill Street between City Hall and the parking garage.

---

A large map of the downtown recommendations can be downloaded from the project website at <http://www.greenwaycollab.com/Projects/Birmingham/BMMTP.html>

# City of Birmingham Multi-Modal Transportation Plan NETWORK MAP

November 25, 2013

## PROPOSED NON-MOTORIZED NETWORK

### SIDEWALKS

- Existing
- Proposed

\*This map displays sidewalks along primary roads

### BIKE LANES

- Proposed

\*All proposed bike lanes can be implemented within the existing curbs of the roadway either through lane narrowing, lane reduction, paved shoulder or consolidation of on-street parking

### BUFFERED BIKE LANES

- Proposed

\*If a physical barrier is added to the buffer between the bike lane and motor vehicle lane the buffered bike lane becomes a Cycle Track

### SHARED LANE MARKINGS

- Proposed

\*Acceptable on roads with a posted speed limit of 35 mph or less

### COLORED SHARED LANE MARKINGS

- Proposed

\*The colored pavement increases visibility of the facility, identifies potential areas of conflict and reinforces priority to bicyclists through intersections

### OFF-ROAD TRAILS

- Existing Un-Paved
- Proposed Paved

\*Shared-use paths for bicyclists and pedestrians that is separated from the roadway

### NEIGHBORHOOD CONNECTOR ROUTES

- Proposed Signed Bike Route on Local Roadways
- Proposed Signed Bike Route with Bike Lane
- Proposed Signed Bike Route with Shared Lane Markings

\*Provides signage to key destinations and often incorporates off-road trail segments as well

### ACTIVE TRANSPORTATION HUB

- Proposed

\*They serve as orientation and resource centers for non-motorized trips and help introduce people to new walking and bicycling opportunities

### ROAD CROSSINGS

- Existing Signalized Intersections
- Existing Unsignalized Pedestrian Crossing
- Proposed Road Crossing Improvement

\*Examples include: curb extensions, crossing islands, and rectangular rapid flash beacons

### PUBLIC TRANSIT

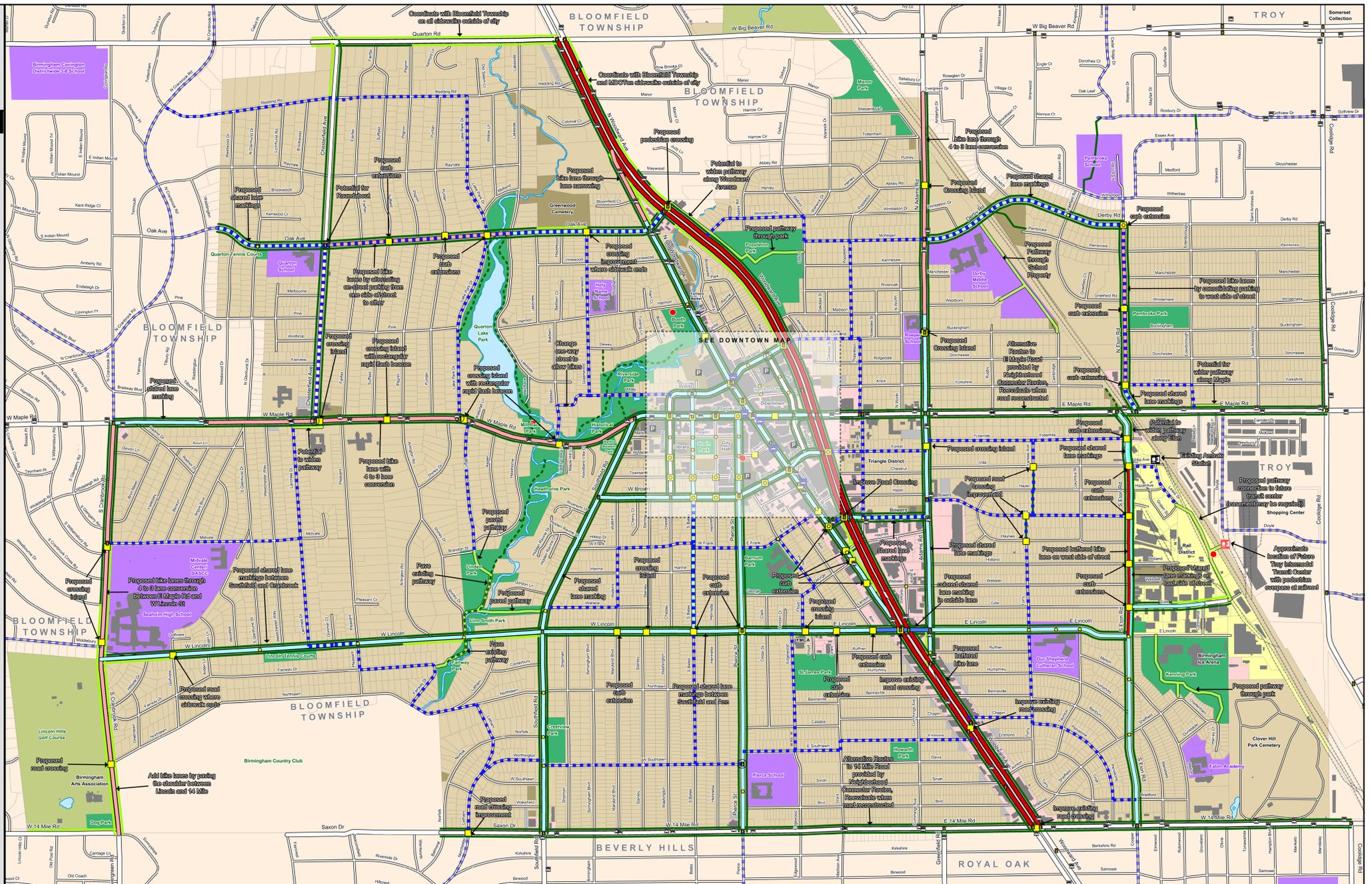
- Existing Amtrak Station
- Future Amtrak Station
- SMART Bus Stop
- Proposed Bus Shelter

### TRANSPORTATION NETWORK

- City Parking
- Primary Roads
- Local Roads
- Railroad

### EXISTING LAND COVER

- Lakes, Ponds, Rivers, & Streams
- Commercial
- Mixed Use
- Parks
- Golf Course
- School Property
- City Property
- Buildings
- Parking Lots
- Parcel
- City Boundary



### Overview of Major Corridor Recommendations

#### WOODWARD AVENUE BETWEEN QUARTON LAKE & 14 MILE

A vision for the Woodward Corridor was developed using the space between the buildings and the roadway to create a "Main Street" feel along Woodward. Some of the key elements include a more pedestrian scaled area that incorporates on-street parking with a service drive, sidewalks, bike lanes that are buffered from Woodward Avenue by a landscaped median and a transit lane.

#### S. CRANBROOK ROAD BETWEEN W. MAPLE & W. 14 MILE

It is recommended that the sidewalk continue south to W 14 Mile Road on both sides of the road. A four-lane to three-lane conversion is proposed which will allow for bike lanes along corridor and crossing islands at Midvale Road and Middlebury Road. South of W. Lincoln bike lanes should continue by paving the shoulder and a new road crossing is proposed at Northlawn Boulevard.

#### N. ADAMS ROAD BETWEEN EVERGREEN & W. LINCOLN

A four-lane to three-lane conversion is proposed for N. Adams Road north of Madison. A three lane road would allow for bike lanes along corridor and crossing islands at Abbey Road and Buckingham Avenue. South of Madison, shared lane markings are proposed along with a crossing island at Yosemite Boulevard.

#### W. MAPLE ROAD BETWEEN WASHINGTON & SOUTHFIELD

With the 2015 road resurfacing project it is recommended that a four-lane to three-lane conversion be evaluated. A three lane road would allow for bike lanes along the corridor and crossing islands at Chesterfield Avenue, Suffield Drive/Pilgrim Avenue, Lake Park Drive/Linden Road and at Baldwin Road. Rectangular Rapid Flash beacons would be recommended at all of the crossing island except at Chesterfield Avenue where there is an existing signal. When implemented Bus stops should be realigned with the new road crossings.

#### Map Information

0 1/8 1/4 1/2 Mile

A 1/2 mile takes between 8 and 12 minutes to walk and 2 and 4 minutes to bike not accounting for delays

Prepared For:  
City of Birmingham  
A Walkable Community

Prepared By:  
THE GREENWAY COLLABORATIVE, INC.  
Toole Design Group

Please note that the information shown on this map is in draft form. Any recommendations that result from this plan will be subject to action by the governmental bodies for implementation and funding

#### LINCOLN STREET BETWEEN SOUTHFIELD & WOODWARD

With the 2014 road resurfacing project shared lane markings are proposed. Crossing islands are proposed at Stanley Boulevard and Floyd Street. Curb extensions are proposed at Maryland Boulevard, Bates Street, Pierce Street, Grant Street and Ann Street. Tree extensions are proposed mid-block between Clark Street and Lincoln Court and between Shipman Boulevard and Birmingham Boulevard.

#### S. ETTON ROAD BETWEEN W. MAPLE & W. LINCOLN

It is recommended that on-street parking be removed from the west side of the street and a buffered bike lane added. On the east side of the street on-street parking should remain with a shared lane marking. Curb extensions are proposed at Yosemite Boulevard, Villa Road, Bowers Street, Holland Street, and Cole Street. Shared lane markings are proposed for both sides of the road between Yosemite Boulevard and W. Maple Road.

#### OAK AVENUE BETWEEN CHESTERFIELD & LAKE PARK

With the 2016 road reconstruction project bike lanes are proposed by consolidating parking to one side of road. The parking should alternate from the north side of the road to the south side of the road every few blocks to provide additional traffic calming. Curb extensions are proposed at Suffield Avenue, Puritan Avenue and Lake Park Drive as part of the reconstruction project.

#### N. ETTON ROAD BETWEEN YORKSHIRE & DERBY

With the 2014 road reconstruction project bike lanes are proposed by consolidating parking to one side of road. Curb extensions are proposed at Derby Road, Windemere Road and Yorkshire Road to improve road crossings and provide additional traffic calming.

#### LINCOLN STREET BETWEEN SOUTHFIELD & WOODWARD

#### S. ETTON ROAD BETWEEN W. MAPLE & W. LINCOLN

#### OAK AVENUE BETWEEN CHESTERFIELD & LAKE PARK

#### N. ETTON ROAD BETWEEN YORKSHIRE & DERBY

#### OLD WOODWARD AVENUE BETWEEN OAK & W. LINCOLN

With the 2016 and 2017 road reconstruction project shared lane markings are proposed. Curb extensions are proposed at Willis Street, Hamilton Row, E Maple Road, W Merrill Street, E Brown Street/Ford Avenue, Danes Street, Hazel Street/Frank Street, Bowers Street, Haynes Street and between George Street and Landon Street.

It is recommended that back-in angled parking be evaluated along this corridor to improve safety and visibility between bicycles and parked motor vehicles.

# City of Birmingham Multi-Modal Transportation Plan DOWNTOWN MAP

November 25, 2013

## LEGEND



### SHARED LANE MARKINGS

Proposed

\*Pavement markings used to indicate to bicyclists a recommended lane position and to indicate to motorists to expect bicycles in the roadway



### NEIGHBORHOOD CONNECTOR ROUTES

Proposed Signed Bike Route on Local Roadways

\*Provides signage to key destinations and often incorporate off-road trail segments as well



### ALLEYS & PASSAGES

Non-motorized cut throughs, ideal for pedestrian activity

\*Identified in the City's Alley & Passages Plan 2012



### CURB EXTENSIONS

Proposed

\*Curb extensions reduce the effective street width by extending the sidewalk or curb line out into the parking lane shortening the pedestrian's crossing distance and increasing visibility between the pedestrian and motorists



### ROAD CROSSING

Proposed

\*Provides high visibility crosswalk at proposed road crossing



### SMART BUS STOPS

Existing Bus Stop  
 Proposed Shelter at Bus Stop



### ACTIVE TRANSPORTATION HUB

Proposed



### OTHER

Signalized Intersections  
 Area Under Separate Study  
 For more details refer to report



As displayed in the image to the left, a stepped curb is located in numerous areas in the downtown. These can present hazardous situations for some pedestrians, especially when they are located at crosswalks where there are no ramps. The near-term recommendation is to remove the stepped curb by installing curb ramps at road crossings. In the long-term the stepped curb should be eliminated throughout the downtown by re-grading the road.

## PROPOSED BICYCLE PARKING IMPROVEMENTS



### UNCOVERED BICYCLE PARKING

Uncovered bicycle racks are the primary bike parking approach where people are expected to park their bikes for only a few hours. Generally the "U" design is considered the best model. These types of racks should be located on every block where there is retail within a commercial district. Recently, the City put in an extensive number of hoops in the downtown.

**Recommendation:** Place 2 bike racks on each proposed curb extension



### COVERED AND SECURED BICYCLE PARKING

Covered and secured bicycle parking is best for areas where bikes are kept for extended periods of time, such as apartment buildings and near places of employment. These facilities are generally placed within existing parking structures and may come with extra bicycle parking amenities. Bicycle parking is generally provided at a fee to the user.

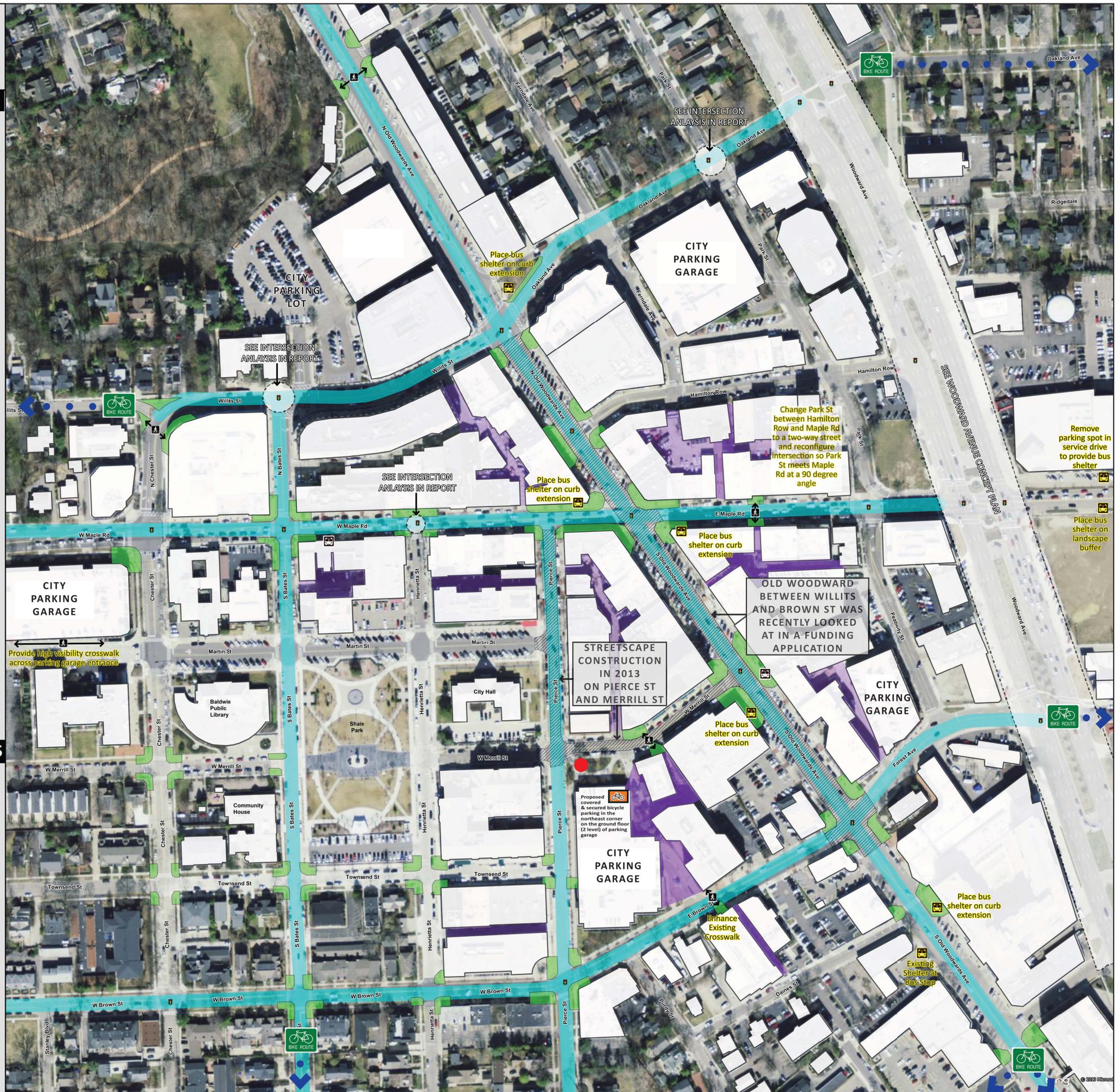
**Recommendation:** Place in city parking decks



### SEASONAL BICYCLE PARKING

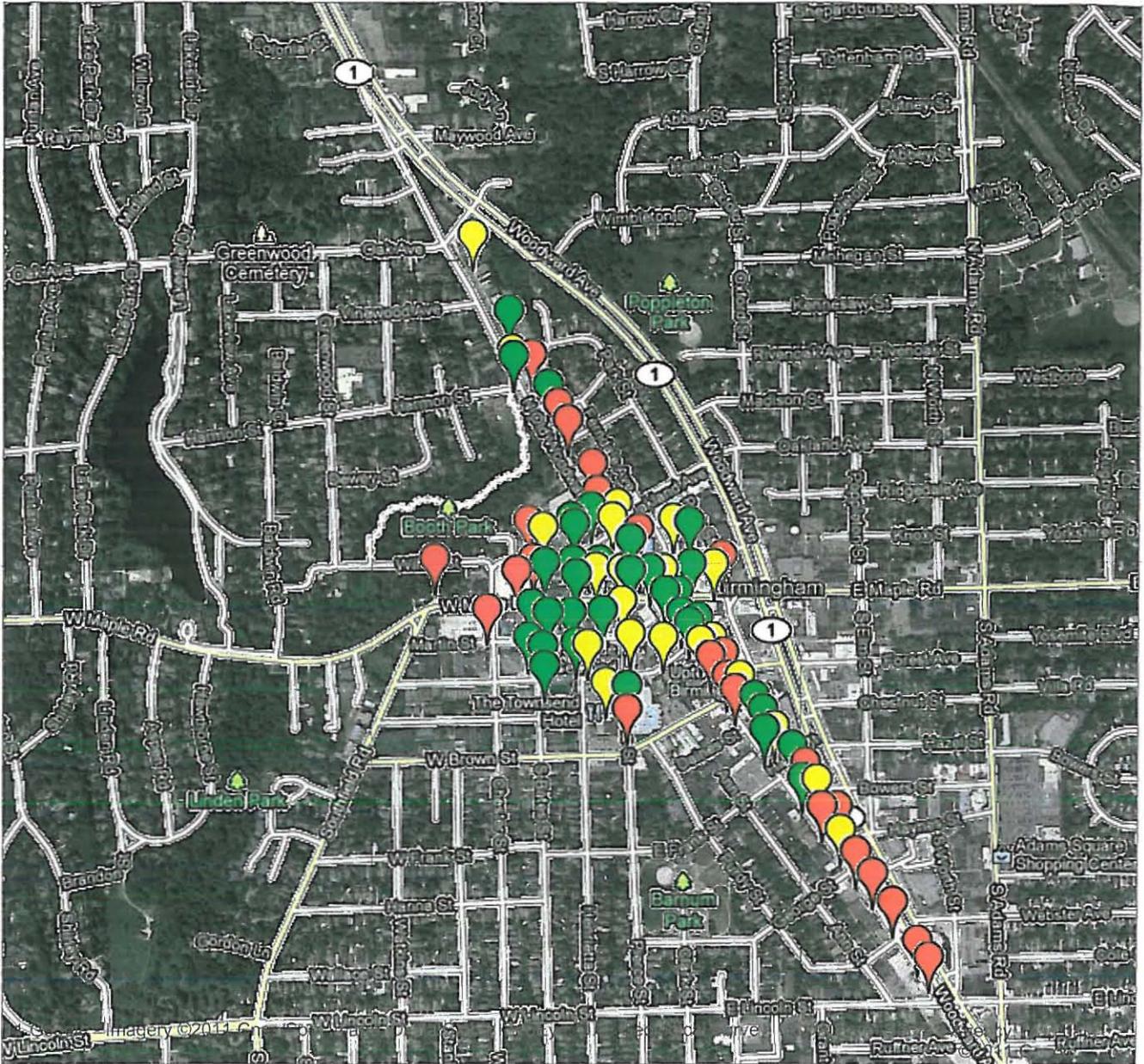
Seasonal bicycle parking consists of movable bike racks that are placed within an open area of the sidewalk or take the place of on-street motor vehicle parking. These racks are temporary and can be experimented with and moved as needed. They can also be used on a seasonal basis and can be removed during the winter or placed in different locations for large events.

**Recommendation:** Seasonally place the racks where there are large curb extensions or adjacent to outdoor dining decks





To see all the details that are visible on the screen, use the "Print" link next to the map.



### Downtown Birmingham Bike Rack Locations - Draft

This is a draft Downtown Bicycle Parking Plan for the City of Birmingham. This document will be discussed on Wednesday, November 30, 2011 at 7:30 pm at the Birmingham Planning Board meeting. Sites need to be finalized with input from relevant departments.

Public · 9 Collaborators · 128 views  
Created on Oct 14 · By · Updated < 1 minute ago

0

-  370 E. Maple  
Locate between meter and tree, parallel to no parking zone in front of Sotheby's frontage
-  288 E. Maple - The Italian Dish

- Locate in front of store along no parking zone between bench and street light. Inform tenant prior to installation.
-  200 S. Old Woodward Chase Bank - SW Corner of Merrill and S. Old Woodward  
Locate on Bump Out. Locate on southern portion of bump out, clear from passage to intersection. Room for and good location for distinctive rack.
  -  210 S. Old Woodward - South Bar and Restaurant  
Exact location for this site to be determined with Engineering. ENG comments: Keep clear of meter and cars in angled parking
  -  298 S. Old Woodward  
To be located in front of no parking zone between light pole and tree. Rack to be installed parallel to street. ENG Comments: Low Demand
  -  180 S. Old Woodward - Paul Cuchinni - NW Corner of Old Woodward and Merrill  
Locate on Bump Out. Locate on northern portion of bump out, clear from passage to intersection. Room for and good location for distinctive rack.
  -  154 S. Old Woodward - Leo's Coney Island  
Locate directly in front of Leo's. Install parallel to street between parking meter and the light pole. Eng comments: South of light post (move trash can)
  -  275 S. Old Woodward - Corner of Brown - Max Brook Real Estate  
Locate on corner parallel to yellow lined curb next to manhole and planter. Confirm if certain distance is needed from manhole cover. Eng comments: Marginal Location
  -  275 S. Old Woodward Multi-level office building/Boock Real Estate  
Locate in furniture zone, directly across from plaza area in front of offices along Old Ww, parallel to no parking zone.
  -  207 S. Old Woodward - Uptown theater/Custom Shop/Zumba Cafe  
Locate south of theater in front of Custom Shop along yellow curb line next to Loading Zone sign. Can install angled to the street.
  -  151 S. Old Woodward - Bump out in front of Clark Hill/Cafe Via  
Locate either on bump out OR n. or s. of bump out on sidewalk in exposed aggregate adjacent to benches. If in bump out, install parallel to parking space on most southern or northern edge on concrete, not exposed aggregate. Need to get owner approval prior to installation. If on bump out, good location for distinctive rack model.
  -  101 S. Old Woodward - Ann Taylor Loft - SE Corner of S. Old Woodward and Maple - Ann Taylor Loft  
Locate in furniture zone facing S. Old Woodward between planter and sign along yellow lined no parking curb.
  -  395 E. Maple - Pazzi  
The rest of the north side of Maple is too tight for any rack. Along the yellow no parking zone at the corner of Peabody in front of Pazzi is one option. Talk to building owner.  
This site may not be necessary.
  -  Chen Chow/Palladium Corner  
Exact location of racks in this area TBD. Should be determined with Engineering. The location will depend on whether or no the trees and tree grates remain. There was discussion about removing them since the trees were doing so poorly in this location.
  -  280 N. Old Woodward - Fidelity  
Locate south of tree along yellow no parking curb between tree and light pole.
  -  430/450 N. Old Woodward - Fieldstone's Fine Jewelers/Saroki Architects  
On corner next to fire hydrant or in front of Saroki architect's door between two parking meters.  
Determine with property owner input.
  -  322 N. Old Woodward - Leonard Co./Travel Agent  
Locate n. of 3rd tree in exposed agg between front doors. Low priority based on uses.
  -  470 N. Old Woodward - Red Salon/Pilates Place  
Locate along driveway entrance between tree grate and driveway next to B'ham Jr. League.
  -  526/528 N. Old Woodward - Commercial strip north of Ravine  
Locate between first two tree beds - only concrete pad without benches or other furnishings. Move closer to one tree or the other.
- N. Old Woodward surface parking lot

-  Locate on exposed agg sidewalk directly across from drinking foundation. Space for and good location for distinctive rack type
-  N. Old Woodward Strip Mall  
Locate on bump-out at end of parking lot in front of creek in exposed agg.
-  505 N. Old Woodward - Salvatore Scalopini  
Locate on s. side of building on curb bump out. Talk with building owner/tenant prior to installation. NOTE: Installation at this location will depend on where racks are installed at Booth Park across the street. If racks are on or close to the corner, this site may not be necessary.
-  Booth Park  
Discuss desired number and location of bike racks for park with Planning/Eng. Can add concrete pad with racks near stop sign. Could use distinctive racks in this location.
-  300 S. Old Woodward - Currently under renovation  
Locate close to corner between tree and light.
-  394 S. Old Woodward (Empty storefront; occasionally used for Estate Sales)  
Locate between meter and trash bin in front of portion of building frontage without windows. Low demand because building is currently empty.
-  444 S. Old Woodward - CVS  
Locate s. of streetlight, n. of front door to CVS.
-  608 S. Old Woodward - Pheonicia/Esquire Cleaners/Birmimgham Nails  
Identified as location for temporary rack alongside outdoor dining deck. Discuss with businesses prior to installation.
-  750/784 S. Old Woodward - Be Well/Tiffany Florist  
Locate between south tree bed and southermost parking meter.
-  820 S. Old Woodward - Empty Storefront  
Locate north of tree bed (btwn tree and parking meter) Low priority b/c building is not occupied.
-  850 S. Old Woodward - Hagoopian Rugs  
Locate in front of last parking spot before driveway by yellow curb marking, closer to meter. Installation is low priority based on use.
-  880 S. Old Woodward - Prudential Building  
Locate between tree bed and parking meter on corner of Landon. Might want to consider whether this is necessary based on use. Low priority.
-  Corner of Lincoln & Woodward - Virtuoso Salon  
Locate along yellow lined curb area adjacent to Virtuoso's parking lot. Low priority based on location. Include with Lincoln St improvements?
-  1000 S. Old Woodward - Multiple Tenants  
Locate in front of building along yellow lined curb marking.
-  479 S. Old Woodward - Mountain King Chinese/First Place Bank  
Locate on corner between light poles along yellow no parking curb in front of First Place Bank.
-  401/411 S. Old Woodward - Yoga Shelter/Spa  
Locate in front of Yoga Shelter in between tree beds in concrete (not aggregate); locate in line with garbage can.
-  944 S. Old Woodward - Birmingham Place and adjacent storefront  
Locate next to residential entrance of Birmingham Place between trash bin and mailbox along yellow lined curb.
-  311/357 S. Old Woodward - Dr. Lori/Metropolitan Tailoring  
Locate in yellow curbed area between parking spots next to tree bed.
-  555 S. Old Woodward  
Locate adjacent to main (canopied) entrance. Locate between trash bim and light pole (will need to move trash bin slightly)
-  555 S. Old Woodward - Multiple tenants  
Locate on corner of Bowers along yellow curb next to light pole (across from Pheonicia). this is near an entrance to the garden level shops.
-  555 S. Old Woodward - Multiple tenants  
Locate on corner of Haynes along yellow curb next to planter. Will serve south entrance to 555 shops.

-  555 S. Old Woodward - Multiple Tenants  
Locate at corner on south side of driveway for 555 residents along last metered parking spot (to the north) in front of sunflower bed.
-  154/160 W. Maple - Revive/Dick O'Dow's  
Install temporary rack with dining deck. Discuss with business owner prior to installation.
-  214 W. Maple - Anthropologie/Adventure Toys  
Locate on west side of Anthropologie, next to Adventure Toys parallel to street along yellow curb next to tree bed.
-  284 W. Maple - Back Country North  
Next to tree along yellow no parking curb on corner of Bates (rack facing Maple) at end of (west) parknig space.
-  323/325 N. Old Woodward  
Locate north of 1st tree N. of Willits, along no parking curb, between tree and light pole across from bench.
-  214 W. Maple - McCann Group/Corner of Bates and Maple  
Install rack on Bates s. of first street light between light and corner.
-  Historical Museum  
Backside of flowerbed (inside park area) opposite benches. Get museum director input.
-  St. James Episcopal Church  
Along yellow curb in front of stone wall with bulletin board
-  Henrietta and W. Maple  
Locate along furniture zone on Henrietta at Maple. Locate facing Henrietta between light pole, trash bin and tree in aggregate.
-  175 W. Maple - Claire's  
Locate parallel to street between light pole and tree.
-  Paper Source - Corner of Pierce and W. Maple  
Corner of Pierce and Maple facing Maple in front of store. Locate along yellow no parking curb west of tree.
-  Bank of America - Corner of Pierce and W. Maple  
Facing Pierce, locate between sign and light pole along yellow no parking curb (kitty corner form recessed bench).
-  180 Pierce - Townhouse  
Locate in bump out adjacent to crosswalk along yellow no parking. Get building owner input and Townhouse input on location.
-  277 Pierce - Corner of Pierce and Merrill  
Locate on corner facing Pierce along yellow no parking curb next to tree bed between tree and sign.
-  Munder Capital Building  
On Pierce at corner along yellow no parking curb close to light pole. Low demand in this location due to business use. Also, there may be an issue with underground utilities.
-  107 Townsend - Robert Kidd Gallery  
Locate along yellow no parking area; it's a long area.
-  320 Martin - Offices (former post office)  
Locate on aggregate pad on corner of Bates and Martin near light pole and flower bed. Consider installing two racks.
-  Baldwin House Apts. - Corner of Martin and Chester  
Location TBD. Discuss location with Planning/ Engineering/Baldwin representatives.
-  221 Hamilton Row - Greek Coney Island  
Locate in front of entrance along yellow no parking curb between tree and light pole (west of tree).
-  300 Hamilton Row - Commonwealth Cafe  
Locate temporary rack along outdoor dining deck. Discuss with tenant.
-  189 W. Merrill - Ken Kojaian Homes  
Locate on corner bump out parallel to Merrill between yellow curb and tree bed.
- 230 W. Merrill - Jeweler

-  Locate parallel to curb along yellow curb line next to tree bed and driveway.
-  151 Martin - Birmingham City Hall  
Identify space in the front of city hall building. ID with input from Planning and Engineering.
-  Shain Park - Martin/Henrietta Entrance  
Locate two racks at Merrill/Henrietta entrance. Large area just outside gated area in front of meters. Good location for distinctive racks.
-  Shain Park - Martin and Bates Entrance  
Locate two racks at Merrill/Bates entrance. Large area just outside gated area in front of meters. Good location for distinctive racks.
-  Shain Park - Bates Entrance  
Locate parallel to brick wall just past bench area at the parking lot entrance. Discuss exact location with Engineering. Would like for this to serve the Community House, as well, since there is no space for racks at their entrances.
-  Shain Park -Merrill St. Entrance  
ID location for racks at this entrance.
-  101 Townsend - Corner of Pierce and Townsend - Margot Day Spa  
Locate on corner facing Pierce along yellow curb between light pole and tree.
-  380 N. Old Woodward - Law Firm  
Locate north of front door, south of 2nd tree south of Euclid. Low Priority
-  Baldwin Library - Merrill and Bates  
Discuss with Library Director possible reconfigurations of existing racks to maximize their utility. Consider adding a few.
-  108 S. Old Woodward - Cold Stone Creamery  
Locate in front of store between light pole and garbage bin along yellow no parking line. Identify whether should be installed angled to the street or parallel to the street.
-  183/167 N. Old Woodward - Formerly Schokolad  
Locate north of crosswalk between lamp pole and traffic light pole along yellow no parking curb in front of New Bangkok Thai Restaurant. Need to move trash bin.
-  265 N. Old Woodward - Figo Salon  
Locate in front of salon between brick pavers and lamp pole (north of pavers and south of lamp pole). Identify if rack should be installed parallel or angled to the street.
-  114 Willits - Google Office  
Locate in one of two places: 1) Install along yellow no parking box east of lamp pole directly across from bench area OR 2) Install next to bench adjacent to Google front door. Need property owner approval for second option.
-  108 Willits - Snap Fitness  
Locate in no parking zone in front of Snap front entrance, south of lamp pole (in aggregate).
-  101 Willits - Baci Salon/The Willits  
Locate one rack (possibly 2 due to proximity to residences at The Willits?) along eastern edge of no parking zone. Locate east of tree bed in front of Baci salon (mix of aggregate and concrete).
-  300 Willits - Gateway Montessori House  
Locate w. of crosswalk and light pole (looks like no parking zone but not marked). Talk with organization prior to installation.
-  Corner of Willits and Bates  
Locate on bump out on corner of Willits and Bates (on side facing Willits) west of tree bed.
-  680 S. Old Woodward - Sport Haus  
No obvious location, though should revisit with Eng. Pad could be paved, but low priority at th moment.
-  Shain Park - Henrietta Street Entrance  
ID location for racks at this entrance.

**2012 DOWNTOWN DRAFT BIKE PARKING PLAN and RACK INSTALLATION DETAILS**

	STREET	Business Name (if applicable)	Bike Rack Location	Notes Re Bike Rack Location/Installation	Additional Notes	Concrete or Aggregate	Total Number of Racks
	<b>Old Woodward Between Brown and Willits/Oakland</b>						
1	298 S. Old Woodward		On corner at Brown	In front of parking maneuvering zone between light and tree.	Install parallel to street. Low demand?	PC	1
2	210 S. Old Woodward	South	In front of South	Locate between meter numbers 162-164 in front of parking space, parallel to curb		PC	1
3	180 S. Old Woodward - NW Corner of Old Woodward & Merrill	Paul Cuchinni Clothier	Locate on Bump out	Locate on northern portion of bump out, clear from passage to intersection	Place in same direction as angled parking. Locate 3 ft south of sewer grate.	PC	1
4	SW Corner of Old Woodward & Merrill	Chase Bank	Locate on Bump out	Locate on southern portion of bump out, clear from passage to intersection, parallel to curb		PC	1
5	154 S. Old Woodward	Leo's Coney Island	Locate directly in front of restaurant between meter and light post.		South of light post (move trash can)	PC	1
6	275 S. Old Woodward - Corner of Brown and S. Old Woodward	Broock Real Estate	On corner of Brown and S. Old Woodward	Locate parallel to yellow curb next to manhole and planter along curb.	Check with Eng re site and Locate at least 4 ft from manhole, ped cross walk curb cut and fire hydrant. ENG comments: Marginal Location-Low priority	A	1
7	275 S. Old Woodward	Multi level building/Broock Real Estate	Locate in furniture zone directly in front of plaza along Old Ww.	Locate parallel to street along yellow parking curb		PC	1
8	207 S. Old Woodward	Uptown Theater/Zumba Café/Custom Shop	Locate in front of Zumba behind newsracks		Confirm with DPS	PC	1

2012 DRAFT DOWNTOWN BIKE PARKING PLAN -  
DOWNTOWN AREA FOR REVIEW

9	151 S Old Woodward (Bump out in front of Clark Hill)	Café Via/Clark Hill entrance	Locate on bump out on south side in exposed aggregate, parallel to curb		To be determined with building owner approval	PC	1
10	101 S. Old Woodward SE Corner of S. Old Woodward & Maple	Ann Taylor Loft	Locate in furniture zone facing S. Old Ww between planter and sign	Locate along yellow striped no parking zone	Locate at least 4 ft from ped cross walk curb cut	PC	1
11		Palladium/Chen Chow corner	TBD		Need to determine future of trees in this location	TBD	1
12	280 N. Old Woodward	Fidelity Investments	Locate south of tree, along yellow curb line between tree and light pole.			A	1
13	108 S. Old Woodward	Bigby	Locate in front of store between street light and tree well along yellow no parking line. Install parallel to street.			PC	1
14	183/167N. Old Woodward	New Bangkok Thai Restaurant/Sanders	Locate north of crosswalk between lamp pole and traffic light pole along yellow no parking curb in front of New Bangkok Thai Restaurant.	Locate between water line and light pole		PC	1
15	265 N. Old Woodward	Figo Salon	Locate in front of salon between brick pavers and lamp pole (north of brick pavers and south of lamp pole). Identify if rack should be installed parallel or angled to the street.			PC	1
	<b>Willits Between Old Woodward and Bates</b>						
16	108 Willits	Snap Fitness			No Clearance. Think of long term option - on-street parking?	PC/A	1
17	114 Willits	Google	Install south of front door in front of window. Install at an angle.			PC/A	1

2012 DRAFT DOWNTOWN BIKE PARKING PLAN -  
DOWNTOWN AREA FOR REVIEW

18	101 Willits	Baci/The Willits	Locate one rack along eastern edge of no parking zone. Locate east of tree bed in front of Baci salon (mix of aggregate and concrete).	Locate post 6 ft from hydrant parallel to curb.		PC/A	1
19	Bates/Willits	Corner of Bates and Willits/Mitchell's Fish Market	Locate on bump out on corner of Willits and Bates (on side facing Willits) west of tree bed.	Locate at least 4 ft from manhole and fire hydrant		PC	1
20	300 Willits	Gateway Montessori House	Locate w. of crosswalk and light pole (looks like no parking zone but not marked).	Locate at least 4 ft from ped cross walk curb cut	Talk with organization prior to installation.	PC	1
	<b>Old Woodward Between Oakland/Willits and Oak/Vinewood</b>						
20	Crossing island across from Beal Bank/Flemmings		Locate between hydrant and signal pole.	Align location so wheel of bike is 3ft from hydrant	Bus stop location	A	1
21	325/323 N. Old Woodward	Beal Bank/Flemmings/UBS		Locate north of 1st tree N. of Willits, along no parking curb, between tree and light pole across from bench	This site might not be necessary due to uses in this area. TBD.	A	1
22	322 N. Old Woodward	Leonard Co.	Locate between Travel Agent and Leonard & Co.	N. of 3rd tree in exposed agg. Between front doors.	Low priority based on adj businesses	A	1
23	380 N. Old Woodward	Law Firm	N. of front door, S. of 2nd tree S. of Euclid			A	1
24	430/450 N. Old Woodward	Saroki Architects/Fieldstone	On corner next to fire hydrant OR in front of Saroki's door between two parking meters	Determine location with Planning/Engineering/Locate at least 4 ft from ped cross walk curb cut if corner location is selected	Determine with property owner input.	A?	1
25	470 N. Old Woodward	Red Salon/Pilates	Locate between tree grate and driveway next to B'ham Jr. League	Locate a minimum of 4 ft from driveway curb cut.		A	1
26	526/528 N. Old Woodward - (first two stores in commercial strip north of Ravin)		Between first two tree beds (to the south) - only pad without benches or other furnishings	Move closer to one tree or another		A	1

2012 DRAFT DOWNTOWN BIKE PARKING PLAN -  
DOWNTOWN AREA FOR REVIEW

27	In front of parking lot on east side of street - across from Salv. Scal.	N. Old Woodward surface parking lot Lot 6 area	Across from screen wall/benches on aggregate extension in bump out	Install 3 permanent racks to serve farmer's market and general commercial area. Install at an angle to ensure 6 ft needed for bike spot and 5 ft needed for ped clearance.	Install at an angle to ensure 6 x 2 ft dimension without protruding into sidewalk. Must have 4ft clearance from driveway entry. Prefer 3-4 ft between rack if space allows	A	3
28	Lot # 6/Farmer's Market	Farmer's Market	Temporary rack located in on-street parking spot. Will be placed in first parking spot on south side of Lot 6	Pending discusion with Advisory Parking Committee	Temporary/Seasonal	N/A	6
29	At end of strip mall with Roma Sposa	Multiple businesses	On bump out at end on parallel parking lot in front of creek			A	1
30	505 N. Old Woodward	Salvatore Scalopini	Locate on S. Side of Building on curb bump out	Talk with building owner/tenant prior to installation. Locate at least 4 ft from ped cross walk curb cut.	Installation at this location will depend on where racks are installed at Booth Park across the street. If racks are on or close to the corner, this site may not be necessary.	PC	1
	<b>S. Old Woodward Between Big Woodward and Brown</b>						
31	300 S. Old Woodward		Close to corner of Brown between tree and light		Low demand?	PC	1
32	394 S. Old Woodward	empty storefront (occasionally used for Estate Sales)	Between meter and trash can in front of portion of building frontage without windows		Low demand b/c it is currently empty	PC	1
33	444 S. Old Woodward	CVS	Install parallel to curb north of front door between meter number 3532 and tree bed. Locate 5 1/2 ft from curb.			PC	1
34	608 S. Old Woodward	Phoenicia/Birmingham Nails/Esquire Cleaners	This is a location for temporary bike parking alongside outdoor dining decks.	Discuss with businesses prior to installation.	Temporary/Seasonal	PC	3

2012 DRAFT DOWNTOWN BIKE PARKING PLAN -  
DOWNTOWN AREA FOR REVIEW

35	690 S. Old Woodward	Sport Haus	No obvious location though should revisit with Eng.	Eng comments: Pad could be paved	Low priority	PC	1
36	750/784 S. Old Woodward	Be Well/Tiffany Florist	Between south tree bed and parking meter			PC	1
37	820 S. Old Woodward	empty storefront	Locate between tree bed and parking meter		Low priority b/c building is not occupied.	PC	1
38	850 S. Old Woodward	Hagoopian	In front of last parking spot before driveway by yellow curb marking	Locate closer to meter. Locate at least 4 ft from driveway curb cut.	Low priority beased on business type	PC	1
39	880 S. Old Woodward	Prudential Building	Between tree bed and parking meter on corner of Old WW and Landon		Low priority based on business type . Might want to consider business and whether there's a likelihood that the rack will be used		1
40	1000 S. Old Woodward		In front of building along yellow lined curb area			PC	1
41	Corner of Lincoln and Woodward	Virtuoso Salon	Along yellow lined curb area adjacent to Vituosos's parking lot		Low priority based on location? Include with Lincoln intersection improvements?	PC	1
42	479 S. Old Woodward	Mountain King Chinese/First Place Bank	On corner between light poles along yellow no parking curb in front of First Place Bank	Locate at least 4 ft from ped cross walk curb cut.		PC	1
43	401/411 S. Old Woodward	Yoga Shelter and Spa	Locate in front of Yoga Shelter between meter number 3515 and northern tree bed. Install parallel to curb aprox 4 ft from curb.			PC	1
44	411 S. Old Woodward	Condos - Birmingham Place	Locate in front of 411 (next to residential entrance of Birmingham Place). Locate in center of no parking triangle parallel to curb approx 3 cement pads north of mailbox.			PC	1

2012 DRAFT DOWNTOWN BIKE PARKING PLAN -  
DOWNTOWN AREA FOR REVIEW

45	311/357 S. Old Woodward	Dr. Lori/Metropolitan Tailoring	Yellow curbed area between parking spots next to tree bed			PC	1
46	555 S. Old Woodward	Multiple businesses	In front of main (canopied) entrance. Locate between trash bin and light pole (will need to move trash bin slightly)			PC	1
47	555 S. Old Woodward	Multiple businesses	On corner of Bowers along yellow curb line next to light pole (across from Pheonicia)	This is near an entrance to the garden level shops. Locate at least 4 ft from ped cross walk curb cut.		PC	1
48	555 S. Old Woodward	Multiple businesses	On corner of Haynes along yellow curb next to planter	Will serve northern shop entrances		PC	1
49	555 S. Old Woodward	Multiple businesses	Locate on south corner of driveway for 555 building along last metered parking spot (to the north) in front of sunflower bed	Locate at least 4 ft from ped cross walk curb cut.		PC	1
	<b>W. Maple Between S. Old Woodward and Southfield</b>						
50	160 W. Maple	Revive/Dick O'Dow's	Temporary Bike Parking proposed adjacent to Dining Deck	Discuss with businesses prior to installation.	Temporary/Seasonal	PC	3
51	214 W. Maple	Anthropologie/Adventure Toys	West side of Anthropologie (closer to Adventure Toys) parallel to street along yellow curb west of tree	3 ft from curb, install parallel to street		PC	1
52	284 W. Maple	Back County North	North of tree bed along yellow curb on corner of Bates (rack facing Maple)	At end of first parking space, parallel to curb, east of tree		PC	1
53	360 W. Maple	McCann Group/Corner of Bates and Maple	Install rack on Bates s. of first street light between light and corner.	May want to relocate near bus stop on corner facing Maple. Locate at least 4 ft from ped cross walk curb cut.		PC	1
54		Historical Museum	Backside of Flowerbed (inside park area) opposite the benches	Add new pad? - Get museum Director Input		PC	1
55	355 W. Maple	St. James Episcopal Church	In front of stone wall with bulletin board along yellow curb			PC	1

2012 DRAFT DOWNTOWN BIKE PARKING PLAN -  
DOWNTOWN AREA FOR REVIEW

56	Henrietta & W. Maple	E. side of Roots, on corner	Locate between parking space and tree in aggregate.	Install angeled and parallel to curb out 6 ft from corner of tree well.		PC	1
57	175 W. Maple	Claire's	Locate parallel to street between light pole and tree			PC	1
58	115 W. Maple	Corner of Pierce and Maple - Paper Source	Locate along yellow no parking curb west of tree on Maple	Locate at least 4 ft from ped cross walk curb cut		PC	1
	<b>E. Maple Between S. Old Woodward and Peabody</b>						
59	North Side of W. Maple between Peabody and S. Old Woodward		On corner of Peabody in front of Pazzi along yellow curb or Talk to building owner for input	Virtually no opportunity for bike parking due to narrow sidewalk. Two possible locations, though they may not be needed with bike parking installed on the south side of Maple	Low priority. May not be necessary. Incorporate into Via Plan?		1
60	288 E. Maple	The Italian Dish	Locate between bench and street light	Locate in yellow striped no parking zone	Inform tenant prior to installation	PC	1
61	370 E. Maple	Sotheby's	Locate between meter and tree	Locate parallel to no parking zone btwn meter and tree.		PC	1
	<b>Hamilton Between S. Old Woodward and Peabody</b>						
62	221 Hamilton Row	Greek Island's Coney Restaurant	In front of entrance along yellow no parking curb between tree and light pole (west of tree).			PC	1
63	300 Hamilton Row	Commonwealth	Temporary in street, alongside dining deck			PC	3
	<b>Pierce Between W. Maple and Brown</b>						
64	Corner of Pierce and W. Maple	Bank of America facing Maple	Locate between tree and light pole along yellow curb		Across the street from bus stop	PC	1

2012 DRAFT DOWNTOWN BIKE PARKING PLAN -  
DOWNTOWN AREA FOR REVIEW

65	Corner of Pierce and Martin	Corner near City Hall	Locate on corner facing Martin in aggregate between light pole and fire hydrant.	Locate 4.5 feet from base of light pole. Install angeled, same angle as parking		A	1
66	Pierce St. Plaza	Pierce St. Parking Garage	Install one near Pierce St. garage entrance between light pole and grass along Pierce.		Discuss additional possible location with Eng, DPS and PB	PC	1
67	Pierce and Brown	Munder Capital Center	On Pierce at corner along yellow curb close to light pole	Locate at least 4 ft from ped cross walk curb cut.	Low priority based on use. There may be an issue with underground utilities.	A	1
	<b>Townsend Between Pierce and Chester</b>						
68	101 Townsend	Margot Day Spa	Locate on corner facing Pierce along yellow curb between light pole and tree.	Locate 3 ft from curb.		A	1
69	107 Townsend	Robert Kidd Gallery	Along yellow curb on the long stretch			A	1
	<b>Other Downtown Sites</b>						
70	230 Merrill	Shubot Jeweler	Locate parallel to street along no parking zone between drive entry and light pole			PC	1
71	320 Martin	Offices (formerly the post office)	Agg. Pad on NW corner near light pole. Install perpednicular to curb between curb and light pole. Ensure four feet between rack and light pole for snow clearing.	Consider another across the street on Tallulah's corner in the future.	Locate at least 4 ft from ped cross walk curb cut. Talk to Mr. Surnow about number of racks (1 or 2)	A	1
72	Chester & Martin	Baldwin House Apts.	Location TBD. Discuss location with Planning/ Engingeering/Baldwin Reps.	Must be at least 4 ft from ped crosswalk curb cut.	Should serve the Baldwin House	PC/A	1
73	230 Merrill	Merrill	Between garage and tree bed along yellow curb	Locate at least 4 ft from driveway curb cut.		PC	1
74	189 Merrill and Henrietta	Ken Kojaian Homes/Townsend Bakery	Parallel to Merrill between yellow curb and tree bed on bump out	Locate at least 4 ft from ped cross walk curb cut.		PC	1

2012 DRAFT DOWNTOWN BIKE PARKING PLAN -  
DOWNTOWN AREA FOR REVIEW

75	300 Merrill	Baldwin Library	Front Entrance	Will install racks to mimick curve of large planter.	Locate minimim 10 ft from edge of planter.	PC	8
76	Shain Park (Martin/Henrietta Entrance)	Shain Park	Martin/Henrietta entrance: Locate two racks in large concrete pad area just outside gate in front of meters.	Total of two racks in this location. Total of 5 racks in park		PC/A	2
77	Shain Park (Bates/Martin entrance)	Shain Park	Bates/Martin entrance: Locate two racks in large concrete pad area just outside gate in front of meters. 3) Bates/Townsend entrance: Locate one rack parallel to grass area, kitty corner form bench. 4) Merrill entrance: ID location for racks at this entrance, if necessary, in the future.	Total of two racks in this location. Total of 5 racks in park		PC/A	2
78	Shain Park (Bates/Townsend entrance)	Shain Park	Bates/Townsend entrance: Locate one rack parallel to grass area, kitty corner form bench.	Total of 1 rack in this location. Total of 5 racks in park		PC/A	1
79	Shain Park (Bates/Martin entrance)	Shain Park (Merrill entrances)	Merrill entrance: ID location for racks at this entrance, if necessary, in the future.	Total of 2 rack in this location.		PC/A	2
80	151 Martin	City Hall	Locate on corner facing Martin in aggregate between light pole and fire hydrant. Locate 4.5 ft from base of light pole. Install angled, same angle as parking.			A	2

**Legend**

	<b>Phase I</b>
	<b>Phase II</b>
	<b>Phase III</b>
	<b>Temporary Racks (Install w/ Phase I)</b>

<b>Total</b>	103
<b>Total Phase I - Permanent</b>	42
<b>Total Phase I - Temporary</b>	15
	(5 sets of 3 racks each)



# MEMORANDUM

Engineering Dept.

**DATE:** June 11, 2014  
**TO:** Multi-Modal Transportation Board  
**FROM:** Paul T. O'Meara, City Engineer  
**SUBJECT:** 2014 & 2015 City Street Projects

---

One of the most important tasks of the new Multi-Modal Transportation Board (MMTB) is to review all proposed upcoming street projects. The following memo reviews what is proposed, and provides background information so these discussions can begin.

## 2014 Projects

The majority of the projects the City plans to undertake during the 2014 construction season are already designed and bid. Some are already under construction. The two most significant projects, which are Lincoln Ave. and N. Eton Rd., were reviewed by the former Multi-Modal Steering Committee, and approved by the City Commission. As important collector routes, the Master Plan called out these streets for significant improvements, and the final plans reflect those changes. At this time, N. Eton Rd. is planned to be started the week of June 30, and Lincoln Ave. should start about the first week of August.

To make the most of each construction season, the Engineering Dept. tries to start the design of major projects by September of the previous year, and offer them to contractors to bid during winter (January through March). This timing provides the best construction prices, and gives the contractor the longest possible period to build the project. Often, these projects are winding down by the end of summer. It has been efficient to schedule a pavement maintenance project so that it is bid in early summer, and built during the fall months. We have a 2014 Pavement Maintenance job that is planned under this scenario. The project is envisioned to include one relatively large street resurfacing, coupled with crack sealing and asphalt rejuvenating. When we put these types of work together, it results in an asphalt paving contractor being awarded the job, as the asphalt resurfacing is where most of the value is.

We expect the 2014 year to be no different. One local street is planned for resurfacing, that being W. Frank St. from Southfield Rd. to Bates St. (as highlighted on the attached map).

W. Frank St. – Southfield Rd. to Bates St.

The Frank St. project is a resurfacing job. The top layer of asphalt will be removed and replaced. No changes are planned to the width of the street, and the curbs will be maintained. The following is proposed for Multi-Modal Improvements.

The Americans with Disabilities Act (ADA) mandates that all handicap ramps must be rebuilt to current standards. Modifications are proposed at all of the intersections, including Southfield

Rd., Watkins St., Stanley Dr., Chester St., and Bates St. Since we are currently preparing the bid package for this work, the handicap ramp designs are already complete, and are attached for your information. We can review the goals of the handicap ramp work, and the requirements that drive these designs, at the meeting.

With respect to bike improvements, most of this segment of Frank St. is designated as a neighborhood connector route in the Master Plan. Page 107 of the plan (attached) references the route, suggested as a part of Phase 3. More detail of what the routes consist of in general is provided on page 60 (also attached). Our understanding is that the route would be signed to encourage bicycling between various destinations, and at some select locations, traffic calming measures. As a relatively quiet, narrow residential street, we do not see the need to implement traffic calming measures here. Further, signing should be done in the future when this board has the time to review and determine the validity of each selected route, so they can be signed from one end to the other. There is no advantage to implementing the installation of the route signs as a part of this resurfacing project, so we do not recommend including the signs at this time.

### **2015 Projects**

The following lists all the street improvement projects planned at this time:

1. Oak St. Reconstruction – Glenhurst Dr. to Lakepark Ave.
2. Maryland Blvd. Reconstruction – Southlawn Blvd. to 14 Mile Rd.
3. Henrietta St. Reconstruction – Northlawn Blvd. to 14 Mile Rd.
4. Southlawn Blvd. Reconstruction – Bates St. to Pierce St.
5. Mansfield Rd. Resurfacing – Sheffield Rd. to Bradford Rd.
6. Martin St. Reconstruction – Southfield Rd. to Chester St.
7. Chester St. Resurfacing – Maple Rd. to Martin St.
8. Derby Rd. Resurfacing – CN Railroad Bridge to Eton Rd.

Oak St. Reconstruction – Glenhurst Dr. to Lakepark Ave.

The Oak St. reconstruction project is specifically discussed in two parts of the Multi-Modal Master Plan. On page 83, it is described as a recommended project in Phase I (primarily because staff had let the author know that it was planned for reconstruction soon). The intersection of Oak St. and Chesterfield Ave. was also studied, as requested by the City, with related information found on pages E23 to E34. Both portions are attached for your reference.

- a) Oak St. Reconstruction – East of Chesterfield Ave.

The Multi-Modal improvements recommended in the Master Plan for this segment of Oak St. are detailed on page 83.

- i) Cross-Section

The most important decision to make relative to this project is the width of the street, and how that width will be used. The existing pavement is 40 ft. wide, measured from the face of the curbs. The plan has suggested using this same 40 ft. width, dividing it into two driving lanes,

two bike lanes, and one parking lane. First, it is important to note that the City is completely removing and replacing this street, so it does not need to be redesigned at 40 ft. The new width can be whatever the City decides is appropriate. Several options are presented below. Second, it is important to note that this recommendation was for the section east of Chesterfield Ave. The plan does not speak to the section west of Chesterfield Ave., where parking demand changes adjacent to the elementary school. There are certain issues that tie the operation of this segment of Oak St. to the functioning of the Chesterfield Ave. intersection, further discussed below. The following cross-section discussion will focus on the section east of Chesterfield Ave.

The existing right-of-way available is 66 ft. The existing 40 ft. wide road fits comfortably within it. On-street parking demand needs to be considered first when deciding the cross-section. The author of the Master Plan came to the conclusion that there was not much demand for on-street parking on this segment of Oak St. However, not having the opportunity to poll the adjacent owners, he did not feel comfortable eliminating it altogether. Because the density and use of the properties are the same on both sides of the street, there was no indication that parking would be preferable on one side vs. the other. The author also saw the existing wide street as an invitation to encourage speeding. These factors likely led to the unique proposal shown on page 83 to move the parking lane back and forth from one side of the street to the other, thereby requiring that through traffic also be tapered back and forth three times along this segment, which is about 0.4 miles in length. The Engineering Dept. does not recommend this approach, for the following reasons:

1. The drawing as shown in the plan does not meet AASHTO (American Assoc. of State Highway and Transportation Officials) standards. AASHTO standards will be referred to frequently in our discussions. They are considered the nationally recognized standards on how to build public streets. Deviating from these standards is not endorsed unless absolutely necessary. We do not recommend building public streets that cannot be demonstrated to meet these standards, as the City will be held liable for doing so if injuries result. AASHTO guidelines indicate the minimum length of distance needed to move a lane from one alignment to another. In this case, where a 10 ft. alignment change is needed, the taper must be at least 83 ft. long. Though not dimensioned, the drawing in the master plan depicts about a 50 ft. long taper. Adding a short amount of distance for the bumpout at the intersection, the taper would then extend about 90 ft. before parking could be introduced on the one side of the street where it would be provided, or about 60% of the side frontage of the typical lot (about 150 ft.) in this subdivision. The 90 ft. sections where a taper is built will result in wasted, paved space, where the road is wider than needed for a street without parking, but too narrow to provide parking.
2. We are not aware of where this tactic has been employed. It would create a need for drivers to watch the road more carefully, thereby diverting attention from other issues that may need their attention, such as pedestrians, bicyclists, or other cars that might inadvertently appear in their path. It also presents an unnecessary distraction when weather conditions are bad, such as dark, rainy nights, or during snow events.
3. Finally, we assume the reason for this proposal was to slow cars down. We feel that there are other, more conventional means to do this that are recommended below.

Before finalizing the cross-section, it is important that the level of parking demand be established. We recommend obtaining this by polling the immediate neighbors, and inviting them to the next MMTB meeting. If they are not able to attend, they can send in their comments to the staff. The main question should be if they consider parking on Oak St. to be an important asset. While polling, it should be pointed out that if they are concerned with average speeds and traffic volumes, rebuilding the road at a narrower width will help reduce speeds. Reducing the average speed may also have a minor effect on through traffic demand. Once the parking demand is established, we can then finalize what the cross-section should be. The table below also lists what was recently decided for N. Eton Rd., for purposes of discussion:

	TOTAL WIDTH	PARKING LANE	BIKE LANE	TRAVEL LANE	TRAVEL LANE	BIKE LANE	PARKING LANE
Oak St. – Master Plan Proposal	40'	7'	7'	10'	10'	6'	0'
N. Eton Rd. – Final Approved	39'	8'	6'	10'	10'	5'	0'
Oak St. - No Parking with Bike Lanes	30'	0'	5'	10'	10'	5'	0'
Oak – Parking one side with Bike Lanes	38'	8'	5'	10'	10'	5'	0'
Oak – Parking two sides with Bike Lanes	46'	8'	5'	10'	10'	5'	8'

(Please see Appendix A for discussion on how suggested widths were arrived at.)

The attached drawings help clarify the three new Oak St. cross-sections at the bottom of the list.

Not knowing how the residents will respond, if we make the current assumption that parking demand is small, the residents would likely prefer a narrower, slower street. The option of parking on one side is problematic when parking demand is the same on both sides of the street. Parking lanes on both sides is also a problem if demand is low, as this would result in a wider street than is necessary.

If the City elects to build a 30 ft. wide street with bike lanes on both sides, it will feel significantly narrower than the current pavement. The narrower street, coupled with bumpouts at selected intersections, will definitely result in lower average speeds. The need to do unique things that have not been tried, such as flipping the parking lanes from one side of the street to the other, then goes away. It is recommended that the 30 ft. cross-section be the direction at this time, subject to change once information from the adjacent residents is received.

ii) Enhanced Crosswalks (Bumpouts)

The Master Plan proposes bumpouts at Chesterfield, Suffield, Puritan, and Lakepark. Improvements at Chesterfield Ave. and Lakepark Ave. both have merit – Chesterfield, due to its location next to a school, and Lakepark, due to its location next to a major City park. If the City

proceeds to install a 30 foot wide pavement with no parking lanes, bumpouts will not be feasible, as bumpouts would interfere with the new bike lanes. This question will have to be revisited if the City elects to build a street with one or two parking lanes.

#### b.) Oak St. Reconstruction – Glenhurst to Chesterfield

We have invited a school district representative to the meeting to assist with the discussion of Oak St. in front of Quarton Elementary School. Here is what we know at this time, from their perspective:

1. All busses use Chesterfield Ave.
2. The south side of Oak St. is the designated parent drop off and pick up area. The number of parents using this area daily is large. Just last year, the school paved a wider sidewalk on this side of the street to improve this operation. They are requesting that a parking lane be provided the full length of this block so that there is room for parents to stand on the south side of the road to unload or load children. The area would remain a No Parking zone, as it is today.
3. The school staff believes that the residents on the north side of the road would prefer that there be no parking allowed during school hours. However, it is unclear if this is their preference for other hours or days of the week. A survey is recommended to these residents as well, to find out what their preference would be.

Using the above information, there are several options that could be built, including the parking lane on one or both sides. Although the block and a half to the west of Glenhurst Dr. (to the Birmingham City limit) is not a part of this project, we intend to recommend that parking be eliminated on this section (similar to the section east of Chesterfield Ave.), and that bike lanes be striped. The road is wider here, so both the travel lanes and the bike lanes would be wider than what is really necessary. With bike lanes being built both east and west of the school, bike lanes through the section in front of the school should be considered as well. Unfortunately, providing parking and bike lanes results in a 46 ft. wide road, six feet wider than it is currently. We would recommend that the street widening be implemented all on the south side, to ensure that none of the existing trees in front of the homes would be removed. All trees on the south side (five trees of medium size) would have to be removed.

Installing the road at 46 ft. on this block may feel excessively wide. The bike lanes could be deleted, to keep it at 36 ft. (4 ft. narrower than it is currently). Assuming that students heading to school are some of the bikers, this may seem short sighted, so the Committee is encouraged to discuss this matter. With either width, we expect that the City would work with the school to provide a wider sidewalk area along their building frontage to aid with parent pick up.

We also recommend that bumpouts be implemented at the Glenhurst Dr. intersection, as this is an important crossing for the school. The size of the bumpouts will have to be determined once the width of the new street is finalized.

#### c.) Oak St. Reconstruction – Chesterfield Ave. Intersection

The traffic signal at this intersection has been identified as one within the City that likely is not warranted. There is a defined list of warrants that should be met when considering whether a

traffic signal should be installed. Operating and maintaining a traffic signal is an ongoing expense to the City that may not be appropriate. Due to the relatively low traffic volumes of both of these streets, this intersection was identified as one the Multi-Modal consultant should study. The results of that study are found in the Master Plan's Appendix, pages E23 – E34 (attached). For this intersection, the Master Plan recommends that the intersection needs further study, but suggests that a roundabout, modifications to the signal, or complete removal should all be considered. We agree that a traffic engineer should be hired to study the intersection. Now that school will not be in session for the summer, the study likely will not be able to gather necessary data on school traffic patterns until September.

Maryland Blvd. Reconstruction – Southlawn Blvd. to 14 Mile Rd.  
Henrietta St. Reconstruction – Northlawn Blvd. to 14 Mile Rd.  
Southlawn Blvd. Reconstruction – Bates St. to Pierce St.  
Mansfield Rd. Resurfacing – Sheffield Rd. to Bradford Rd.

The City intends to reconstruct or resurface all of the above street segments together in one street paving contract. As must be done on any project of this nature, the federally mandated ADA requirements dictate that all handicap ramps within the project areas must be removed and replaced to meet current standards.

Only one of the four streets (Southlawn Blvd.) is mentioned in the Master Plan, being part of a neighborhood connector route to be built in Phase 2. Page 96 (attached) shows the route that could be implemented using Southlawn Blvd. Similar to Frank St. mentioned above, the neighborhood connector route is a collection of signs that can be added later, and do not need to be implemented with a street paving project. We recommend that the route be implemented all at once at a later date when other Phase 2 projects are being considered.

Martin St. Reconstruction – Southfield Rd. to Chester St.  
Chester St. Resurfacing – Maple Rd. to Martin St.

The Martin St. project (adjacent to the Chester St. Structure) addresses a suggested project found in the Downtown Birmingham 2016 Plan. The goal is to remove the parking control equipment that is in the vacated right-of-way, and making modifications so that this block can function as a full two-way street. The City is currently working with a property owner on this block to acquire the necessary right-of-way, so further discussions are not appropriate at this time. Once those issues are resolved, we plan to bring a conceptual plan before you at that time.

The Chester St. project is a resurfacing project for the one short block adjacent to the Chester St. Structure. Since the work abuts the Maple Rd. intersection, it is appropriate to review the needed multi-modal improvements in that area, particularly at the southwest corner. The attached conceptual sketch shows the substantial reduction in crosswalk lengths that could be accomplished by reconstructing this corner, which was widened in 1973 to accommodate the Ring Road concept. Since the City is no longer supporting the Ring Road idea, a more conservative corner can be constructed here that will still accommodate large trucks, but improve the area for pedestrians.

In 2008, the northwest corner of the intersection was revised to remove other Ring Road elements. The space gained was changed into an urban park area. If the Board is in general agreement with the direction being taken, streetscape drawings will be prepared to make this corner more pedestrian friendly. Since it is adjacent to the parking structure, we will request that funding for this additional work come from the Auto Parking Fund.

#### Derby Rd. Resurfacing – CN Railroad Bridge to Eton Rd.

The above segment of Derby Rd. is scheduled for resurfacing in late 2015. As a resurfacing project, the widths will not be changing. The Master Plan references improvements to this segment, as well as the portion in front of Derby Middle School (between Adams Rd. and the railroad bridge). West of the bridge, the pavement is 36 ft. wide (with a high demand for parking on the north side). East of the bridge, the pavement is 29 ft. wide (with parking legal on both sides, but lower demand).

On page 84, the Master Plan suggests that shared lane markings be added to the entire half mile of Derby Rd. from Adams Rd. to Eton Rd., as a phase 1 improvement. (Shared lane markings are painted symbols placed toward the right side of the travel lane, showing a bike symbol and two arrows in the direction of travel. It implies that drivers need to share the road with bicyclists.) At the time this project is completed, the N. Eton Rd. bike lanes will be in service, ending at Derby Rd. We recommend that the shared lane markings be added to this resurfacing job, as well as the segment west of the railroad bridge. The shared lane markings will provide an important link for bicyclists riding through this part of the City.

On page 96, this segment of Derby Rd. is labeled as part of a Phase 2 neighborhood connector route. This route involves other streets to the west that will require further discussion at a later date. Since adding signs for a route does not need to be done as a part of the resurfacing project, we recommend that this be postponed to a later date.

Similar to all of our other street projects, handicap ramps along the route will have to be replaced to meet current ADA standards. We will include this work as a part of the project.

#### **Summary**

The following summarizes the conclusions of this memo, and provides suggested resolution for the board to consider at this time:

1. As the only remaining 2014 project to be bid, handicap ramp improvements will be implemented on **W. Frank St.**, per the attached drawings. Implementation of the Phase 3 neighborhood connector route can be completed at a later date.
2. Parking surveys will be forwarded to all property owners directly adjacent to **Oak St.**, explaining what is proposed, asking for their preference relative to parking, and inviting them to the next meeting. Cross-section discussions will continue once their input has been received. Once a traffic engineer has been hired by the City, they can be directed to conduct a study relative to the future configuration of the Chesterfield Ave. intersection.

3. The City will proceed with design for the **Maryland Blvd., Henrietta St., Southlawn Blvd.,** and **Mansfield Rd.** projects. All handicap ramps will be upgraded to meet ADA requirements. As plans are nearing completion, they will be reviewed again by the Board. The suggestion for Southlawn Blvd. to be part of a phase 2 neighborhood connector route can be implemented at a later date.
4. The conceptual design for **Martin St.** will be provided to the Board at a later date, pending right-of-way acquisition issues.
5. The City will have the southwest corner of Maple Rd. and **Chester St.** surveyed and designed for pedestrian and urban park improvements. It will be returned to the Board at a later date.
6. The City will proceed with the design of the ADA improvements needed as a part of the **Derby Rd.** project. The phase 1 recommendation to install shared lane markings will be included in this contract. As plans are nearing completion, they will be reviewed again by the Board. The suggestion for Derby Rd. to be part of a phase 2 neighborhood connector route can be implemented at a later date.

**SUGGESTED RECOMMENDATION A:**

**To recommend to the City Commission that the Multi-Modal Transportation Board endorses the Engineering Dept.'s plans for the resurfacing of W. Frank St., implementing the handicap ramp improvements as designed. Phase 3 neighborhood connector route recommendations found in the Multi-Modal Master Plan should be implemented as part of a broader effort involving other streets at a later date.**

**SUGGESTED RECOMMENATION B:**

**To endorse the Engineering Dept.'s direction relative to its 2015 street project plans, and to return to the Board as needed as plans and information gathering progresses.**

**2014 & 2015 City Street Projects**  
**Multi-Modal Board Memorandum for June 19, 2014**  
**Appendix A**

On Page 4 of the memo, a chart of various street cross-sections is provided, with various widths for the street features. The Board should be aware of how the lane widths were arrived at, and why they vary.

First, it is important to note that the Multi-Modal Master Plan author is an expert on community-wide planning for multi-modal improvements. The recommendations within the plan are meant to be a starting point for discussions relative to how final projects are designed. Once projects move from the conceptual to the reality stage, it is important to note that the responsibility to build projects that meet current safety standards rests with the City of Birmingham. As the Engineer in charge of these projects, it is our duty to review the suggested ideas and apply AASHTO standards to them. When there is disagreement between the two, we will recommend moving toward designs that can be defended as meeting those standards. If the City intentionally builds street projects that do not meet AASHTO standards, we will need to have strong reasoning that supports those deviations. To do otherwise would open the City to liability should the public be injured using a street after it has been built.

The cross-sectional width of the proposed streets' various elements is an important part of the design that we feel must meet AASHTO standards. The Engineering Dept. has not modified the suggested travel lane widths of 10 feet, as recommended by the consultant. However, deviations to the parking lane and bike lane designs are recommended, for the following reasons:

Parking Lane

The master plan has suggested the use of 7 ft. wide parking lanes. The City has not implemented marked parking lanes narrower than 8 ft. Considering many commonly used vehicles are wider than this, our office researched this issue further. AASHTO has prepared a guide for the design of bike facilities. The most recently published fourth edition is being used as our reference for this discussion. As shown on page 4-15 (attached), the cross-section shows that parking lanes can be built as narrow as 7 ft. However, the minimum desired width is 8 ft. Further reading of the text reveals that 7 ft. wide lanes can be justified under unique circumstances, including where right-of-way is not available. This issue was reviewed during the discussion on N. Eton Rd. last year. The Steering Committee agreed that an 8 ft. wide parking lane is more appropriate on that street. For the same reasons, we feel that the Oak St. parking lanes (or in this case, also the Quarton School parent drop off lane) should be built using the standard minimum of 8 ft.

Bike Lane

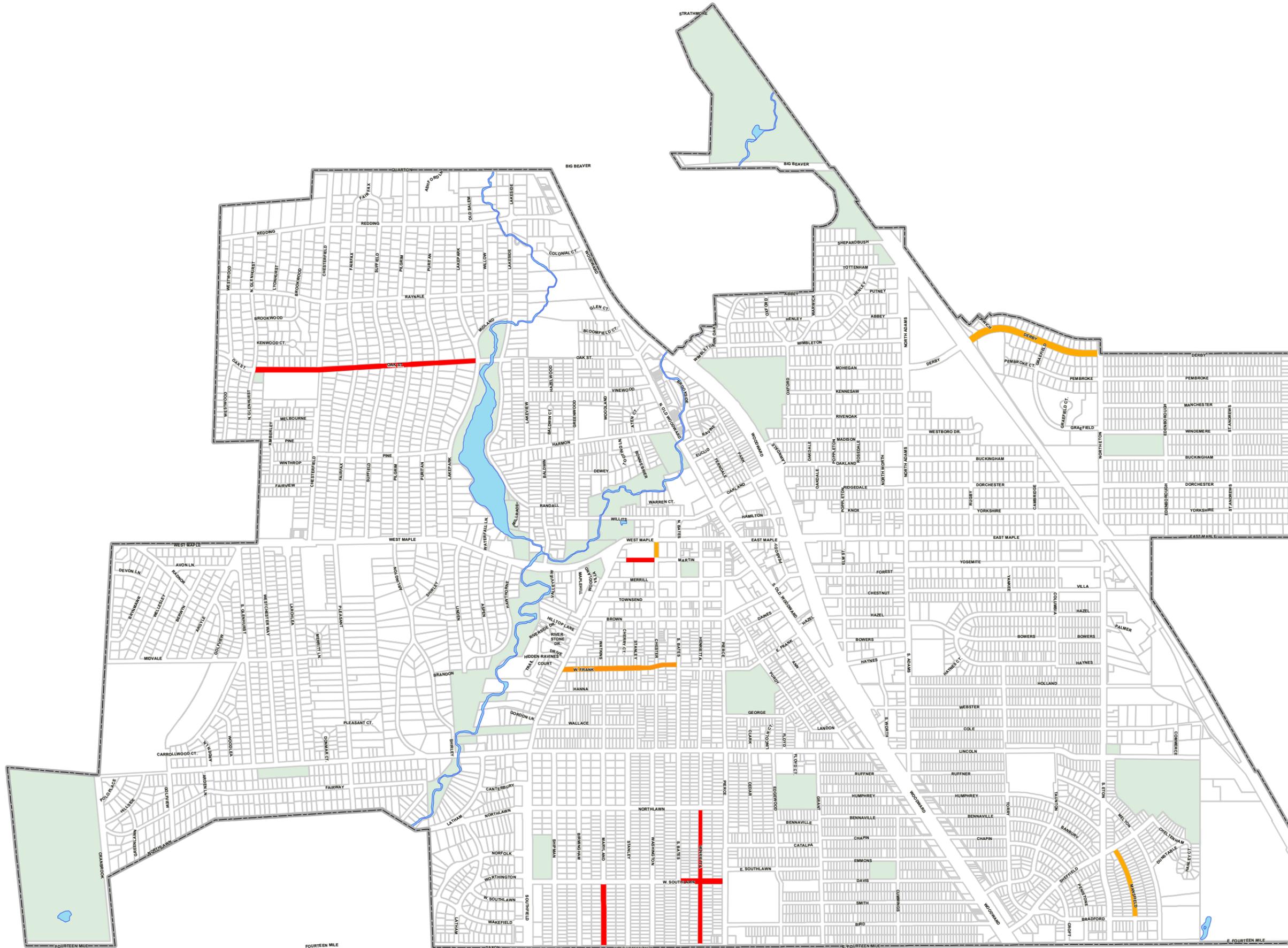
For both Eton Rd. and Oak St., the Master Plan cross-sections use the existing pavement width in their designs. We think there was a misunderstanding on the part of the author that the City had to use the existing lane widths as a part of the future street projects. Since both of these streets are being reconstructed, there is no need to select bike lane widths that help the total

correspond to the current street width (we are free to build the road narrower or wider as is desired in the final design).

When bike lanes are built next to a travel lane, and there is no parking lane, AASHTO recommends that 5 ft. is the standard, but 4 ft. can be provided in extreme circumstances. Wider lanes are not encouraged because they can then be used by vehicles as passing lanes. We believe the 5 ft. lane should be used where there is no parking.

When a bike lane is installed between a parking lane and a travel lane, AASHTO suggests a width of anywhere between 5 ft. and 7 ft., depending on the circumstances. The wider widths can be justified when the parking lane involves vehicles parking for short intervals, like in front of a convenience store. This is appropriate, to help avoid conflicts between car doors and bikes. When parking demand is lower, and vehicles stay for longer durations, the narrower widths can be implemented. Wider widths can also be justified on busier, higher speed roads, which Oak St. is not. Given these parameters, we feel five foot wide bike lanes are appropriate throughout the Oak St. project.

# PROPOSED ROAD IMPROVEMENT PROJECTS 2014 - 2015



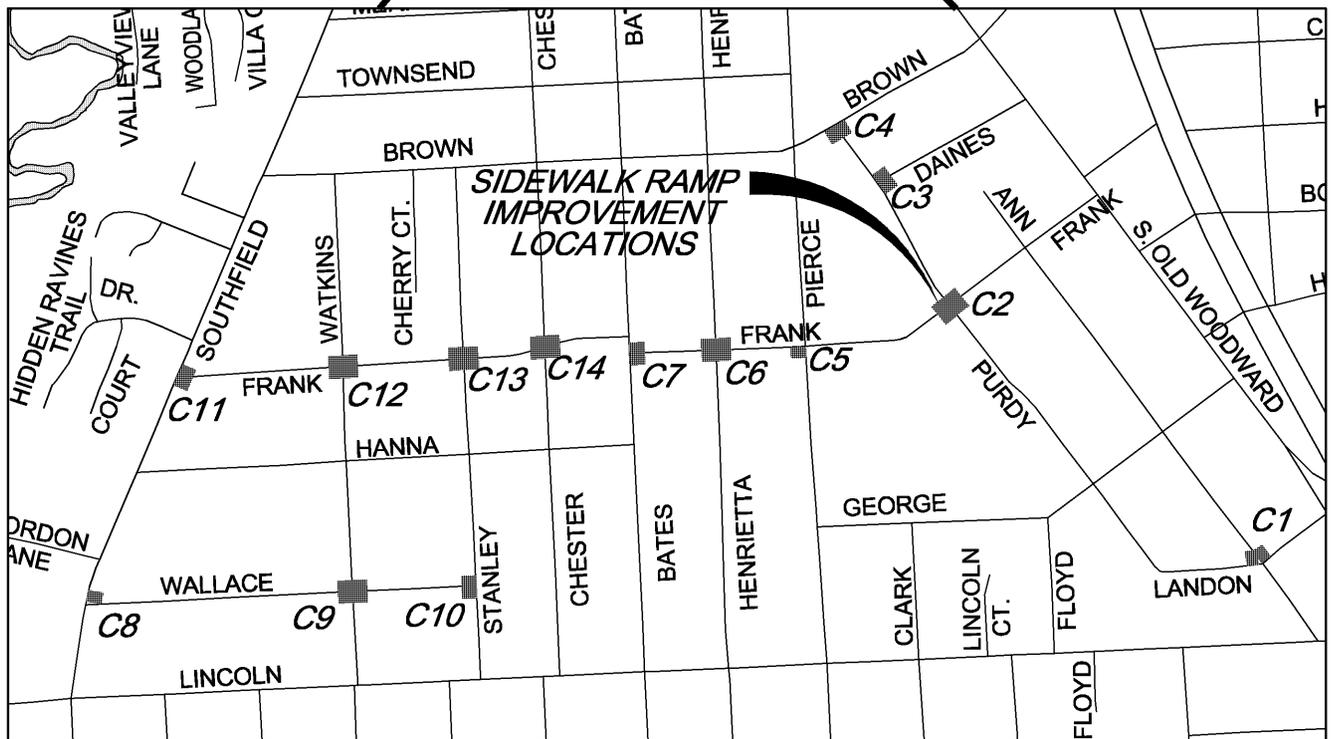
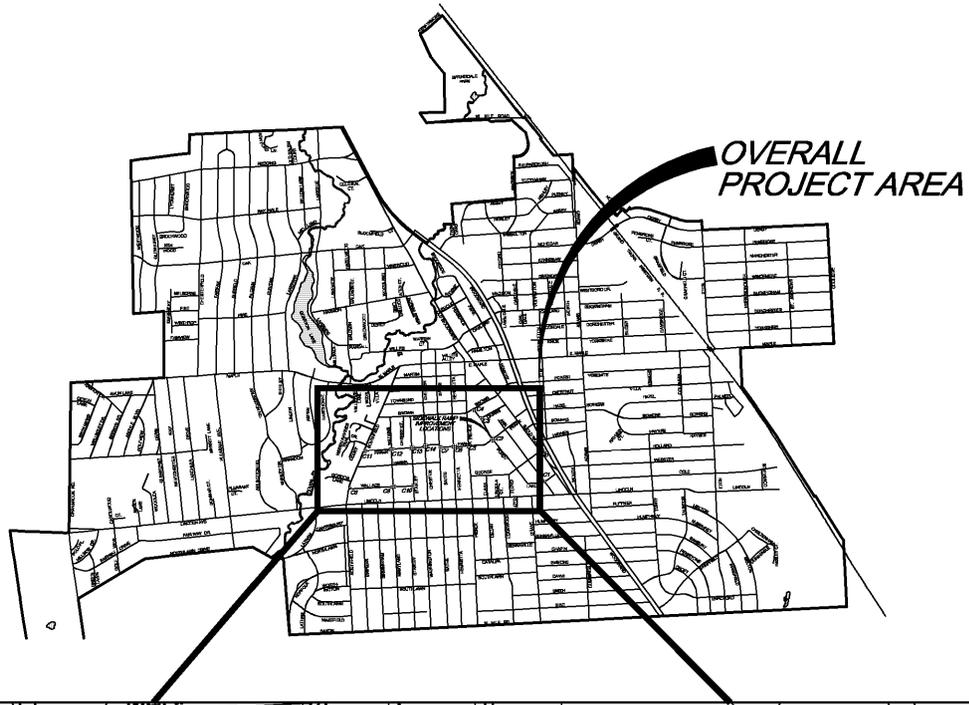
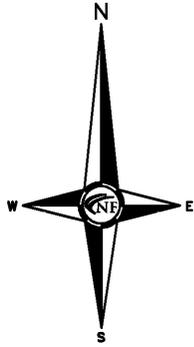
## Legend

-  Resurfacing Projects
-  Reconstruction Projects



1 in = 0.25 miles

# City of Birmingham



KEY MAP



**ENGINEERS**  
 NOWAK & FRAUS ENGINEERS  
 46777 WOODWARD AVE.  
 PONTIAC, MI 48342-5032  
 TEL. (248) 332-7931  
 FAX. (248) 332-8257

PREPARED FOR:

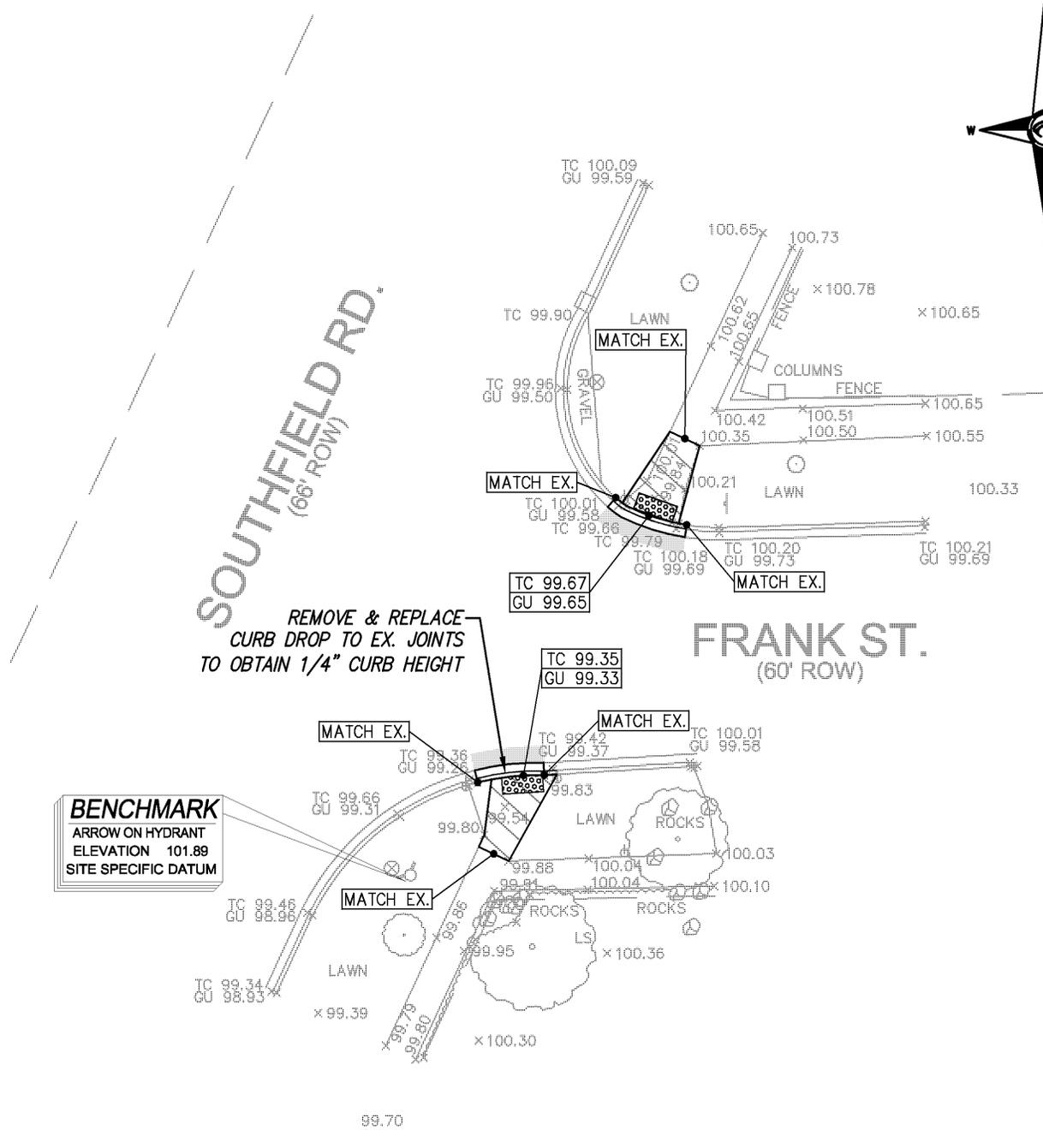
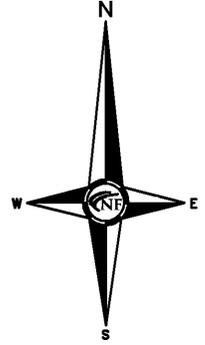


Engineering Department  
 151 Martin Street  
 Birmingham, MI 48012

SIDEWALK RAMP IMPROVEMENT  
 LOCATIONS WITH CORRESPONDING  
 SHEET NUMBERS

SCALE	DATE	DRAWN	JOB NO.	SHEET
N.T.S.	6/6/13	RP	H479	COVER

# City of Birmingham



**BENCHMARK**  
 ARROW ON HYDRANT  
 ELEVATION 101.89  
 SITE SPECIFIC DATUM

REMOVE & REPLACE  
 CURB DROP TO EX. JOINTS  
 TO OBTAIN 1/4" CURB HEIGHT



**NOWAK & FRAUS ENGINEERS**  
 46777 WOODWARD AVE.  
 PONTIAC, MI 48342-5032  
 TEL. (248) 332-7931  
 FAX. (248) 332-8257

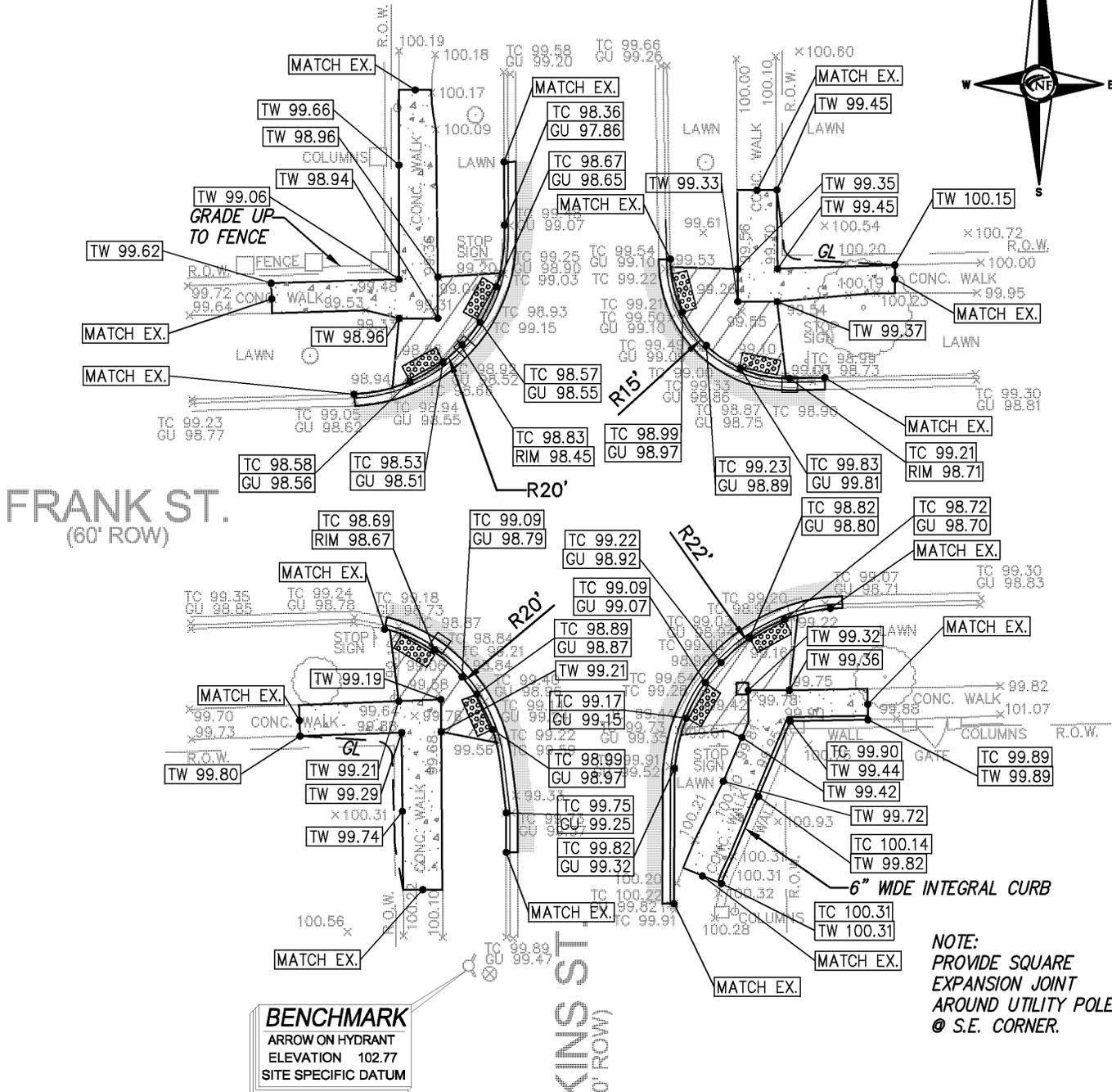
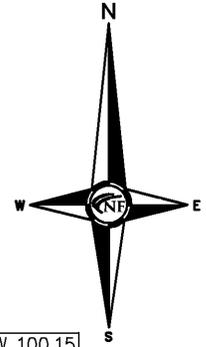
PREPARED FOR:



Engineering Department  
 151 Martin Street  
 Birmingham, MI 48012

SCALE	DATE	DRAWN	JOB NO.	SHEET
1"=20'	6/6/13	RP	H479	C11

# City of Birmingham



**NF ENGINEERS**  
NOWAK & FRAUS ENGINEERS  
46777 WOODWARD AVE.  
PONTIAC, MI 48342-5032  
TEL. (248) 332-7931  
FAX. (248) 332-8257

PREPARED FOR:



Engineering Department  
151 Martin Street  
Birmingham, MI 48012

SCALE  
1"=20'

DATE  
6/6/13

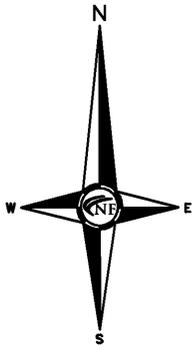
DRAWN  
RP

JOB NO.  
H479

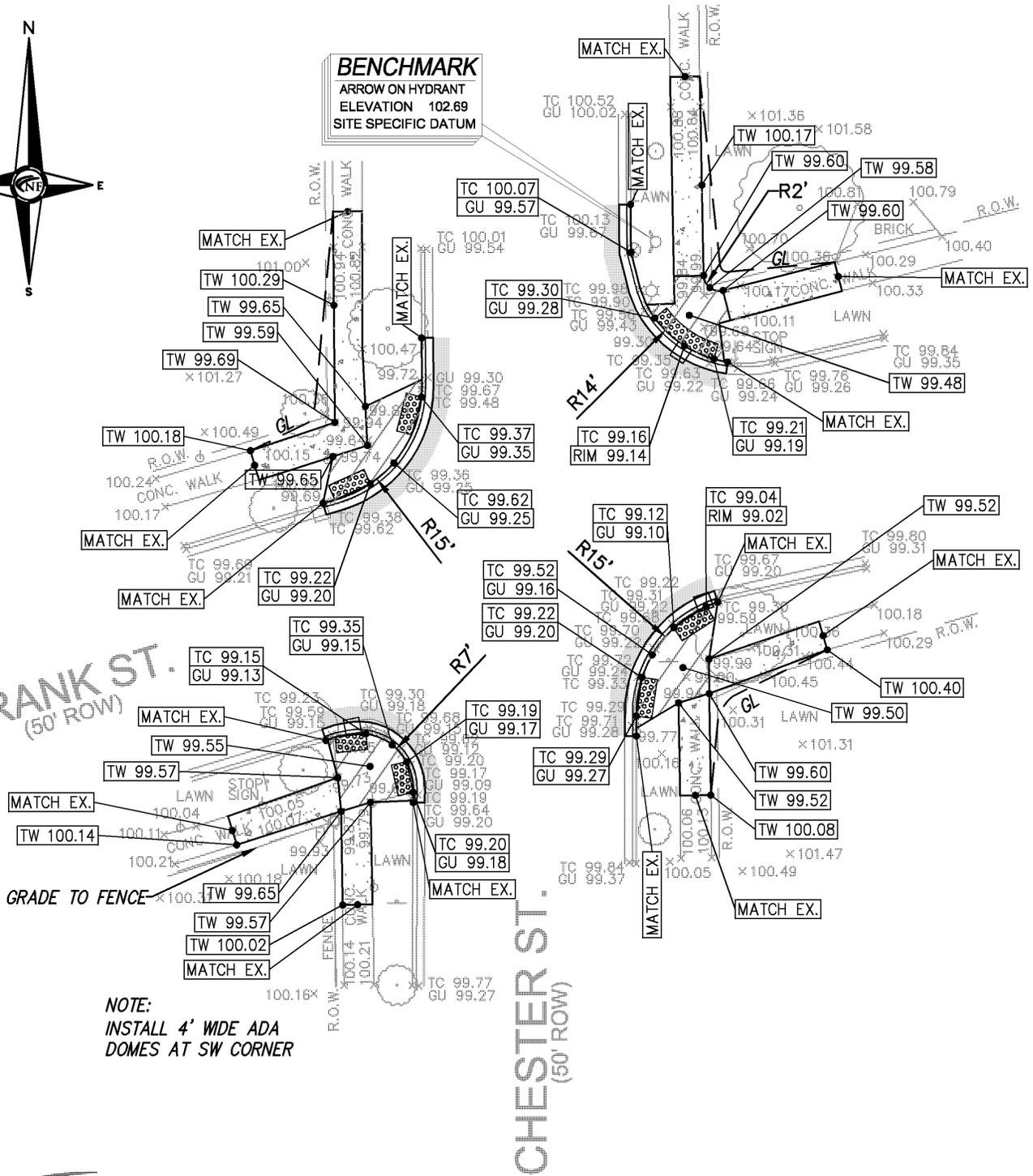
SHEET  
C12



# City of Birmingham



**BENCHMARK**  
 ARROW ON HYDRANT  
 ELEVATION 102.69  
 SITE SPECIFIC DATUM



**NOTE:**  
 INSTALL 4' WIDE ADA  
 DOMES AT SW CORNER



**NF ENGINEERS**  
 NOWAK & FRAUS ENGINEERS  
 46777 WOODWARD AVE.  
 PONTIAC, MI 48342-5032  
 TEL. (248) 332-7931  
 FAX. (248) 332-8257

PREPARED FOR:  

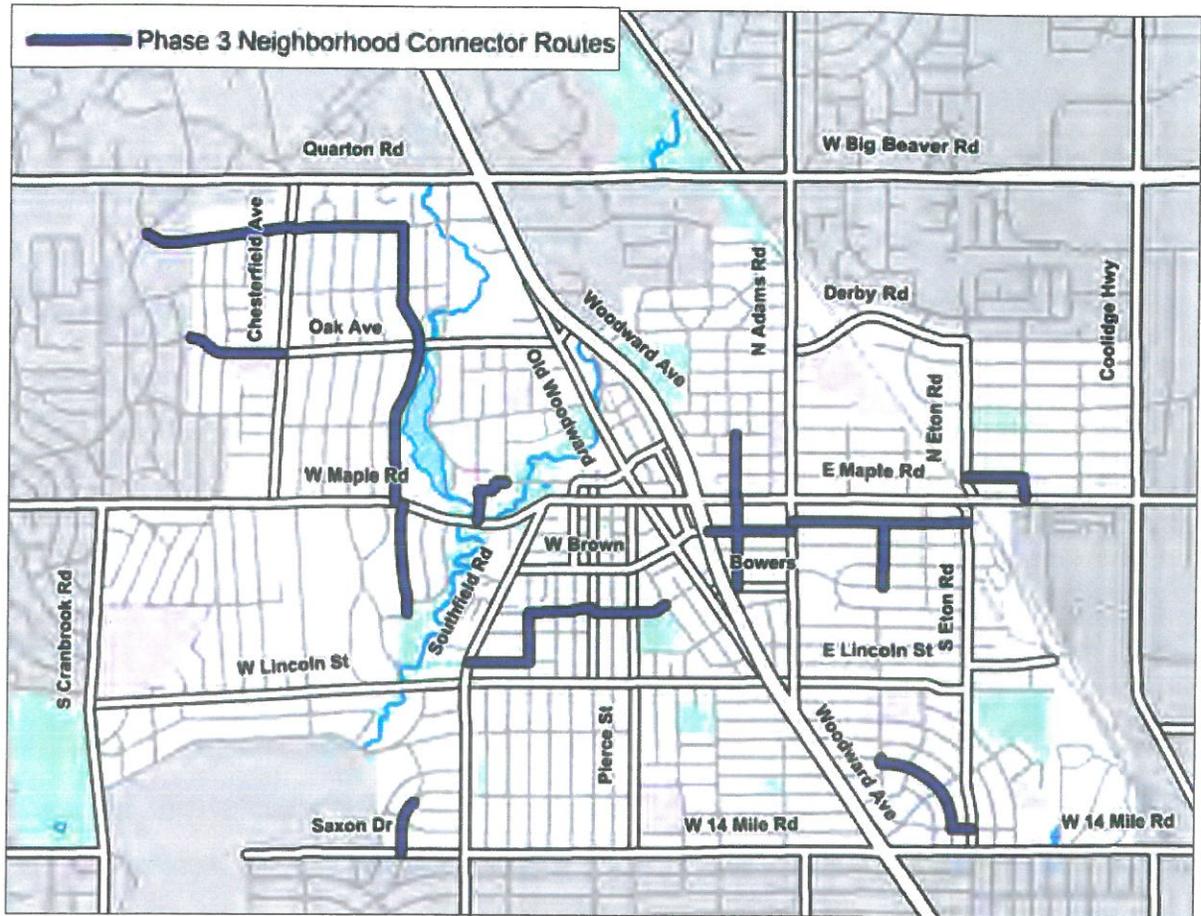
 City of Birmingham  
 A Walkable Community

Engineering Department  
 151 Martin Street  
 Birmingham, MI 48012

SCALE	DATE	DRAWN	JOB NO.	SHEET
1"=20'	6/6/13	RP	H479	C14

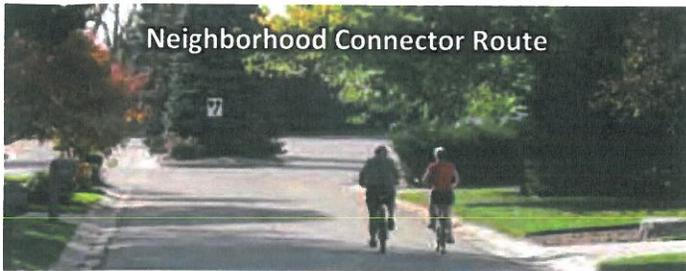
**PHASE 3: RECOMMENDED NEIGHBORHOOD CONNECTOR ROUTES**

This phase focuses on completing the neighborhood connector routes. While the neighborhood connector routes are relatively easy and economical to implement some are dependent on the construction of proposed pathways and road crossing improvements. It will be important to prioritize the implementation of the neighborhood connector routes in this phase based on the progress of pathways implementation and road crossing improvements.



CITY OF BIRMINGHAM MULTIMODAL TRANSPORTATION PLAN   
**PHYSICAL ENVIRONMENT RECOMMENDATIONS**

**3.7 NEIGHBORHOOD CONNECTOR ROUTES**



**DESCRIPTION**

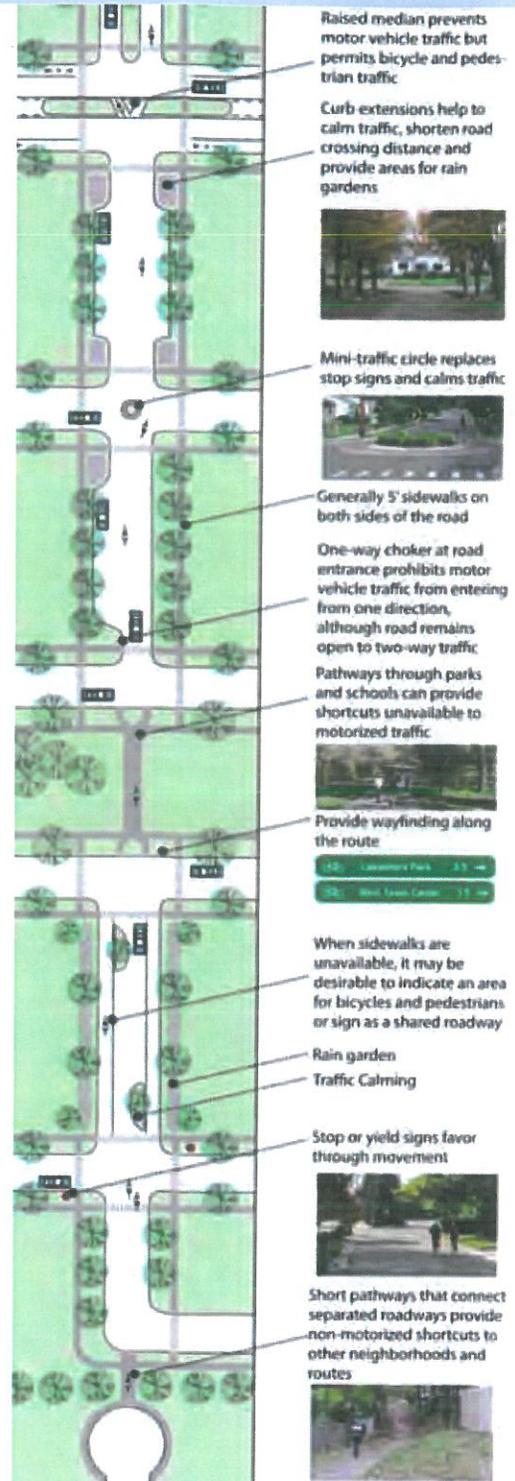
Neighborhood Connector Routes, also known as Bicycle Boulevards, are primarily located on low speed, low volume local roads and connecting pathways. They link neighborhoods to parks, schools and commercial areas. Signs provide wayfinding by noting direction and distance to key destinations. Elements such as traffic calming, public art, rain gardens and historic features can be added to enhance the routes. These routes appeal to families, children and people who are less comfortable walking and bicycling along a major roadway.

For the most up-to-date guidelines please refer to Chapter 9 of the *MUTCD*, Chapter 4 & 5 of AASHTO's *Guide for the Development of Bicycle Facilities*, and the Bike Route Wayfinding section of NACTO's *Urban Bikeway Design Guide*.

**RECOMMENDATIONS**

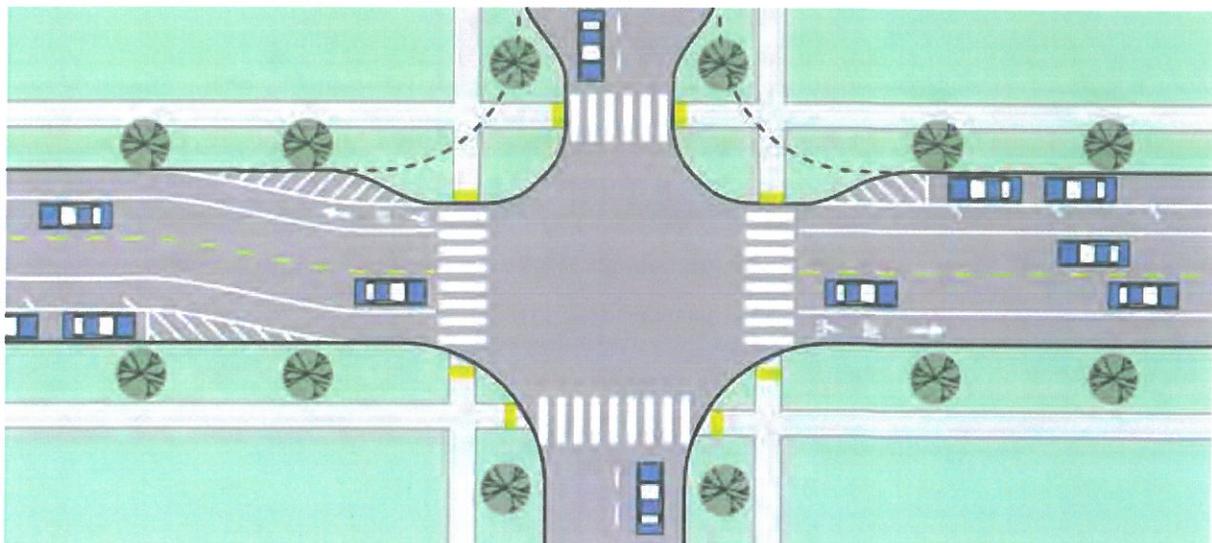
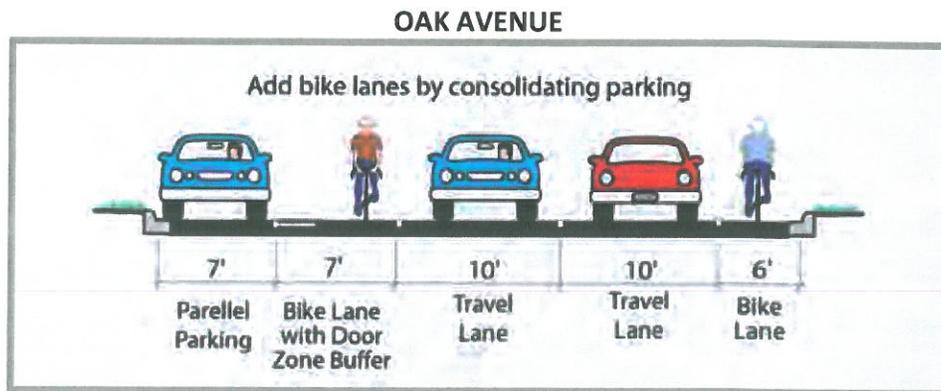
Neighborhood Connector Routes should be developed over time. Initial improvements include wayfinding signage and crossing improvements where the route intersects a major roadway. Traffic calming is added only if it is necessary. Environmental and aesthetic improvements are implemented based on community input and available budgets. Please refer to the Network Implementation Plan for more details.

Please refer to Fig. 3.7A for a map of the proposed neighborhood connector routes

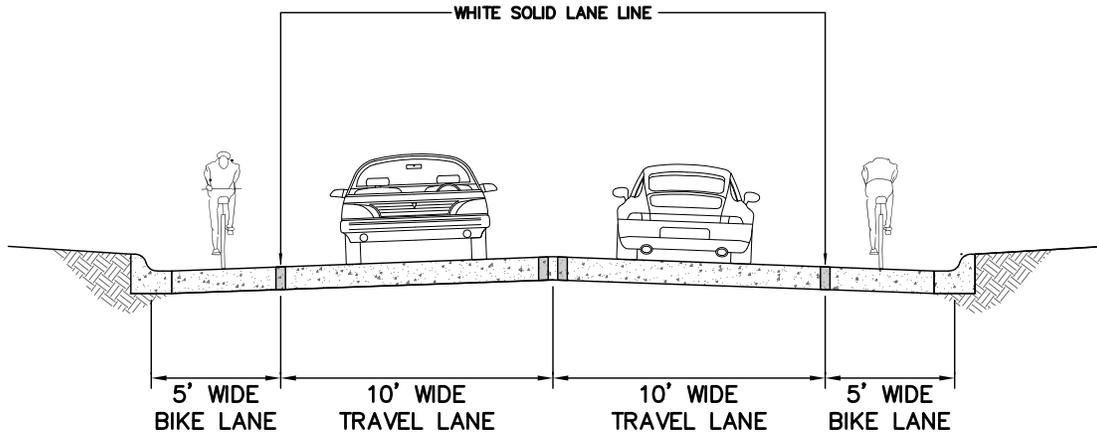


Add bike lanes to Oak Avenue between Chesterfield Avenue and Lake Park Drive by consolidating the parking to one side of the road as part of the 2016 road reconstruction project. To provide additional traffic calming the consolidated parking should alternate from the north side of the road to the south side of the road every few blocks, changing sides where there are proposed curb extensions:

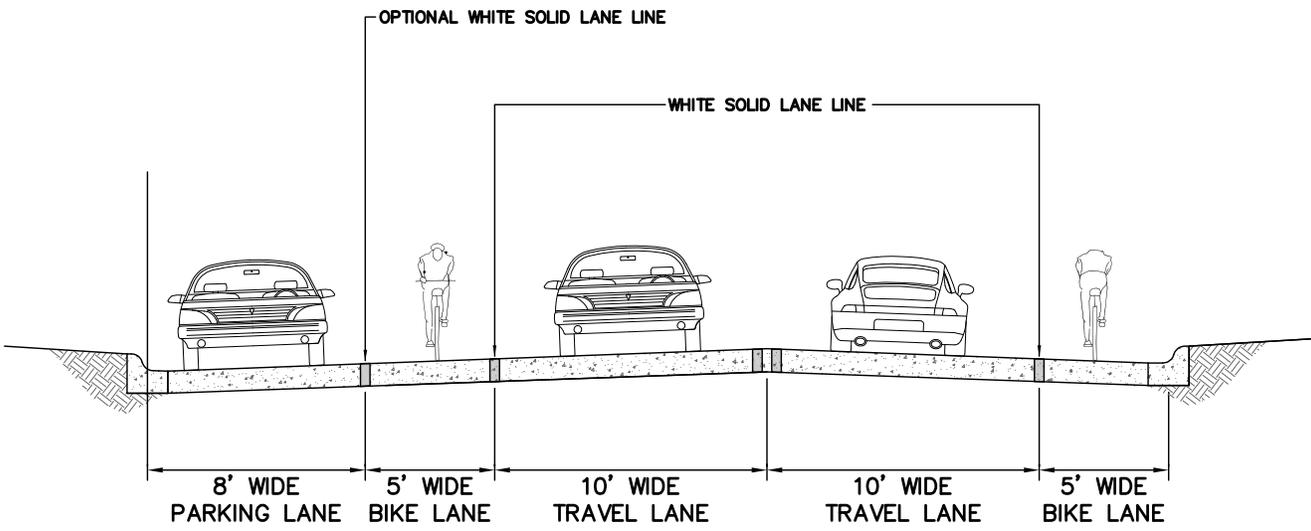
- Chesterfield Avenue to Suffield Avenue – Parking on south side
- Suffield Avenue to Puritan Avenue – Parking on north side
- Puritan Avenue to Lake Park Drive – Parking on south side



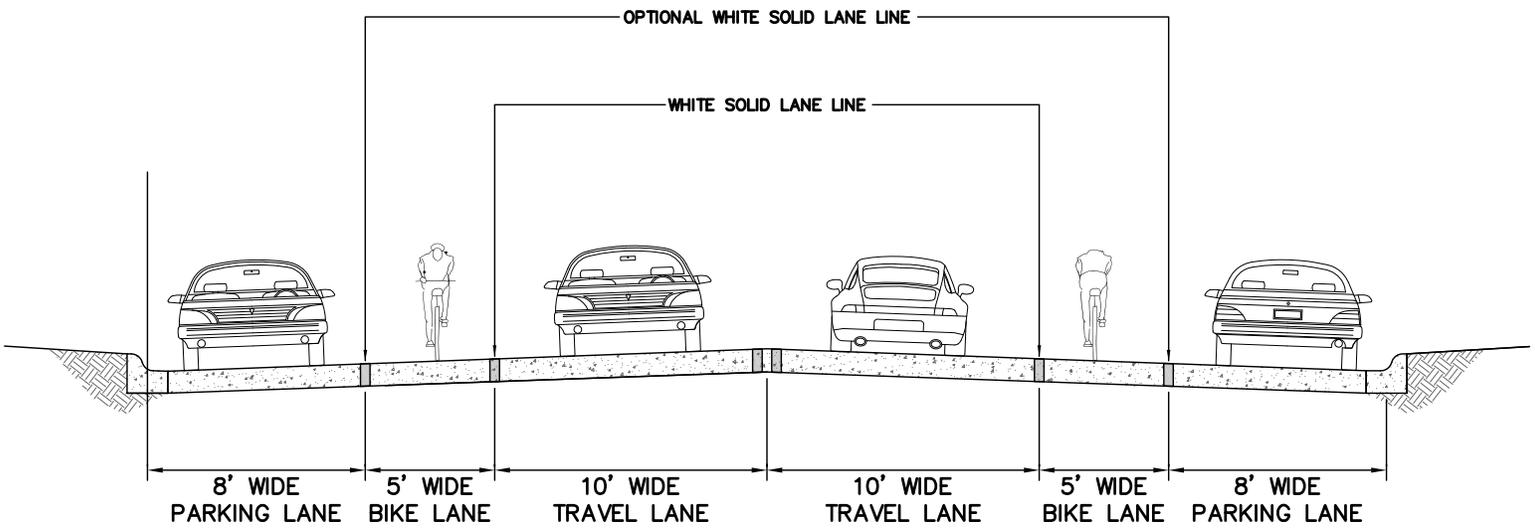
Pavement markings for the door swing zone are proposed between the on-street parking and the bike lane. See previous page for details.



OAK AVENUE - NO PARKING WITH BIKE LANES



OAK AVENUE - PARKING ONE SIDE WITH BIKE LANES



OAK AVENUE - PARKING TWO SIDES WITH BIKE LANES

**RECOMMENDATION INTERSECTON ALTERNATIVES**

The following table outlines one or more alternatives each intersection. For each alternative the potential improvements are noted in the table. Prior to any physical changes to the intersections, a comprehensive engineering study will be conducted for each intersection to identify the preferred alternative and refine the proposed improvements.

**FIG 2.1B. SUMMARY OF RECOMMENDED IMPROVEMENTS**

	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
<b>1. Oak &amp; Chesterfield</b>													
<i>Roundabout Alternative</i>					X	X							X
<i>Signalized Alternative</i>	X							X			X	X	X
<i>Stop-Controlled Alternative</i>	X					X							X
<b>2. Adams &amp; Buckingham</b>													
<i>Signalized Alternative</i>			X					X		X	X	X	
<i>Stop-Controlled Alternative</i>		X				X							
<b>3. Willits &amp; Bates</b>													
<i>Signalized Alternative</i>	X							X	X	X			X
<i>Stop-Controlled Alternative</i>	X					X							
<b>4. Oakland &amp; Park</b>													
<i>Signalized Alternative</i>	X			X				X	X		X	X	X
<b>5. Maple &amp; Lake Park</b>													
<i>Non-Road-Diet Alternative</i>			X				X	X		X		X	
<i>Signalized Road-Diet Alt.</i>		X	X	X			X	X		X	X	X	
<i>Stop-Controlled Road-Diet Alt.</i>		X		X		X							
<b>6. Pierce &amp; Southlawn</b>													
<i>Signalized Alternative</i>	X							X			X	X	
<i>Stop-Controlled Alternative</i>		X	X			X							
<b>7. Maple &amp; Chesterfield</b>													
<i>Non-Road Diet Alternative</i>							X	X		X		X	
<i>Road-Diet Alternative</i>		X		X			X	X		X	X	X	
<b>8. Maple &amp; Henrietta</b>													
<i>Signalized Alternative</i>	X							X	X	X			
<i>Stop-Controlled Alternative</i>	X					X							X

---

## OVERVIEW OF RECOMMENDED INTERSECTION IMPROVEMENT TREATMENTS

A brief description of each improvement identified in Figure 2.1B, Recommended Intersection Improvements, is provided on the following pages. Additional details including benefits, limitations and next steps are outlined in Appendix E.

---

### GEOMETRIC IMPROVEMENTS:

- **Adding curb extensions** shortens the crossing distance for pedestrians, improves visibility between pedestrians and motorists, adds more pedestrian queuing space and may reduce vehicle turning speed.
- **Adding a median island** provides refuge for pedestrians crossing the road. A median island allows the pedestrian to cross in two stages, which increases crossing opportunities.
- **Adding a crosswalk** improves pedestrian connectivity and decreases pedestrian delay. In many cases, adding a crosswalk does not affect signal timing and is a very cost-effective way to improve pedestrian conditions at an intersection.

---

### OPERATIONAL IMPROVEMENTS:

- **Implementing a road diet** may slow traffic and reduces pedestrian crossing distance and can create space for a bike lane or parking lane, which provides an additional buffer from traffic for pedestrians.
- **Converting an intersection to a roundabout** may reduce delay and potential conflicts for motorists at the intersection.
- **Removing a signal** and converting the intersection to a two- or all-way stop-controlled intersection may reduce delay to all users. At locations where signals are to be removed, geometric improvements may be required to provide pedestrian and bicyclists safer opportunities to cross roadways. Before removing the traffic signal, the intersection should be adjusted to operate in flash operation 24-hours per day as a pilot of removing the signal.

---

### SIGNAL IMPROVEMENTS:

- **Adding countdown timers** informs pedestrians of the remaining time they have to cross the street and may reduce conflicts between motorist and pedestrians
- **Updating pedestrian times** includes adding a pedestrian buffer time and changing the pedestrian change interval (flashing DON'T WALK time) to allow more time for pedestrians to cross the street.

- **Adding leading pedestrian intervals** allows pedestrians to get a head start in crossing the intersection before conflicting turning vehicles are released.
- **Shortening the signal cycle length** reduces pedestrian and motorist delay where appropriate.
- **Adding/Extending flashing operation** reduces delay for all users at times of day when demand is low and can be added or implemented at more hours of the day at locations where traffic is high during peak hours and low during the remaining hours of the day. At locations where signals operate in flash, geometric improvements may be required to provide pedestrian and bicyclists safer opportunities to cross roadways.
- **A semi-actuated signal** responds to traffic on the minor street and pedestrians crossing the major street to reduce delay when traffic volumes on the minor street are relatively low. During peak hours, the minor streets will actuate each cycle (i.e. at least every 80 seconds), creating gaps for motorists exiting adjacent side streets.
- **Other improvements include** widening a median island to provide additional queuing space for pedestrians, changing the signal phasing to better accommodate all users, and implementing safe routes to school strategies to improve operations during student arrival and dismissal periods.

## CITY OF BIRMINGHAM MULTIMODAL TRANSPORTATION PLAN EIGHT INTERSECTION RECOMMENDATIONS

### 2.2 DESCRIPTION OF RECOMMENDATIONS

The following provides further detail for improvements that are common to several intersections. For each recommended improvement, a general description, benefits, limitations and next steps are provided.

#### ADD CURB EXTENSIONS.

Curb extensions, or bulb-outs, extend the sidewalk and curb into a parking lane.



#### Benefits

- Shortens the crossing distance for pedestrians, reducing exposure to traffic.
- Improves visibility between motorists and pedestrians waiting to cross.
- Adds more pedestrian queuing space.
- Narrows the roadway and may discourage speeding.
- May reduce vehicle turning speed.
- Provides opportunities for green infrastructure.

#### Next steps:

- Larger vehicle turning paths should be checked to ensure that trucks and buses can navigate around the curb extension.
- Consider additional treatments to increase motorists yielding to crossing pedestrians (e.g. "Stop for Pedestrians in Crosswalk" Sign, Rectangular Rapid Flash Beacon).

---

**ADD A MEDIAN ISLAND.**

A median island, or crossing island or pedestrian refuge island, is a constructed island within a street.



Benefits

- Reduces pedestrian delay by allowing pedestrians to cross the street in two stages.
- May increase pedestrian comfort by providing a refuge.
- Adds buffer between opposing travel lanes at intersection and calms traffic.

Next steps

- Confirm roadway width to determine feasibility. Refuge islands designed for pedestrian use should be at least 4 feet wide and 20 to 25 feet long according to the American Association of State Highway and Transportation Officials' (AASHTO) 2011 A Policy on Geometric Design of Highways and Streets ("Green Book"). A six foot wide island is desirable to accommodate bicycles.

---

**ADD A CROSSWALK.**

A crosswalk communicates to both pedestrians and motorists that pedestrians are expected to cross at that location.

Benefits

- Improves pedestrian quality of service by decreasing delay and increasing crossing opportunities.

Limitations

- Motorists may experience small increase to delay when yielding to a pedestrian in new crosswalk.

Next steps

- Perform a sight-distance assessment to evaluate the appropriateness of a pedestrian crossing for intersections where signals go into flashing mode or are removed.
- Consider roadway characteristics to determine if additional crossing treatments are needed.

---

#### IMPLEMENT A ROAD DIET ON THE MAJOR STREET.

Depending on the existing roadway cross-section, a road diet removes travel lanes on the existing roadway to add on-street parking, add bike lanes, add or widen a median island, or add left-turn lanes.

##### Benefits:

- May reduce speeds and crashes.
- Shortens pedestrian crossing distance.
- Allows for a bike lane or parking lane to provide an additional buffer between pedestrians and moving vehicles.

##### Limitations:

- May reduce capacity of the street, potentially leading to increased congestion.

##### Next steps:

- Perform a traffic analysis to determine feasibility of removing a travel lane

---

#### REMOVE A SIGNAL.

The removal of a traffic signal involves removing all signal equipment from the intersection. If a signal is removed, an alternate means of controlling the traffic (roundabout, all-way stop or two-way stop) must be installed.

##### Benefits:

- Significantly reduces delay to the major street and may reduce delay to the minor street.

##### Limitations:

- May increase delay to motorists on the side street and pedestrians crossing the major street if these users have difficulty finding a gap in traffic.

##### Next steps:

- Perform a signal warrant study in accordance with the 2009 MUTCD. If the signal is not warranted, consider removal.
- Perform a multi-way stop warrant study to determine if a two-way or all-way stop is appropriate. This study will include an evaluation of multimodal traffic, crash history, distance and conflicts between users.
- Before removing the traffic signal, the intersection should be adjusted to operate in flash operation 24-hours per day as a pilot of removing the signal. The City should conduct observations during both the peak and off-peak hours to evaluate the effectiveness of removing the signal.

---

#### UPDATE PEDESTRIAN TIMES.

The pedestrian signal timings should be updated to be in accordance with 2009 Manual on Uniform Traffic Control Devices (MUTCD). This includes adjustments to the buffer time and the pedestrian change interval.

The 2009 MUTCD states that pedestrians should have a minimum of 3 seconds *buffer time* between the end of the flashing DON'T WALK indication and the release of the conflicting traffic movement.

The *pedestrian change interval* (i.e. flashing DON'T WALK time) should be updated using 3.0 feet per second walking speed at intersections adjacent to schools to accommodate school children and a 3.5 feet per second walking speed at all other locations.

##### Benefits

- Ensures that pedestrians have adequate time to clear the intersection before conflicting traffic is released.

##### Limitations

- May increase delay slightly for all users at the intersection

---

#### ADD LEADING PEDESTRIAN INTERVAL (LPI).

Leading pedestrian intervals release pedestrians before concurrent traffic is released. The 2009 MUTCD specifies that LPIs are a minimum of 3 seconds long and are long enough for pedestrians to cross at least one lane of traffic. The Federal Highway Administration's Signal Timing Manual specifies that leading pedestrian intervals are suitable in downtown environments.

##### Benefits

- Improves pedestrian service by giving the pedestrian the WALK indication before the concurrent vehicular traffic gets the green indication, allowing the pedestrians to establish themselves in the crosswalk before turning motorists may turn.

##### Limitations

- Potentially decreases vehicle service slightly by reducing effective vehicular green time during each cycle.

##### Next steps

- Collect traffic counts during peak periods and model the intersection with a leading pedestrian interval to determine whether it will significantly decrease service at the intersection, especially if considering this improvement in combination with shortening the cycle length.

---

#### SHORTEN THE SIGNAL CYCLE LENGTH.

A shortened cycle length is achieved by reducing the total time for all intersection approach to receive a green indication.

Benefits

- May decrease motorist delay.
- Decreases pedestrian delay, which increases likelihood of pedestrian compliance to the signal per the 2010 Highway Capacity Manual.

Limitations

- Potentially decreases signal efficiency during peak periods.

Next steps

- Perform a traffic study to analyze traffic flow with varying cycle lengths to determine the shortest cycle length that still accommodates motor vehicles and pedestrians efficiently. *Consider shorter cycle lengths during off-peak period when traffic demands are lower.* Determine if the signal is coordinated with other signals. If it is coordinated, the other signals in the network should be considered in the traffic analysis.

---

**ADD/EXTEND FLASHING MODE.**

In flashing mode, the signal flashes yellow on the major road and flashes red on the minor road or red on both roads. Several intersections currently operate in flash at some times of the day and it is recommended that the hours of flash operation be extended. For some intersections that do not operate in flash, the addition of flash operation is recommended.

Benefits

- Reduces delay for delay to motorists on the minor street.

Limitations

- May reduce a pedestrian's ability to cross. It is recommended that the intersection be studied to determine if pedestrians will have sufficient safe opportunities to cross.

Next steps

- Perform a signal warrant study to determine feasibility and ideal hours of flashing operation. The 2009 Manual on Uniform Traffic Control Devices (MUTCD) states in Section 4D.28 "based on engineering study or engineering judgment, traffic control signals may be operated in the flashing mode on a scheduled basis during one or more periods of the day rather than operated continuously in the steady (stop-and-go) mode." The Federal Highway Signal Timing Manual says to consider flashing operation at low-volume locations during off-peak travel periods. If signal warrants are not met during several hours of the day, the following should be completed to determine how the signal should operate in flash:
  - Evaluate sight distance to ensure that motorists on the minor street have adequate sight distance to decide when to enter the intersection and to ensure that all motorists can see pedestrians crossing at the intersection.

- Determine if signal should operate in yellow-red flash or red-red flash. Perform a multi-way stop evaluation based on the MUTCD Multi-Way Stop Applications. If a multi-way stop warrants are met, all signals should flash red. If not, the minor street should flash red and the major street should flash yellow to operate like a two-way stop.
- At intersections adjacent to schools, confirm that signal is not converted to flashing mode during school arrival and dismissal periods. Signal should be in normal operation during these periods to provide crossing opportunities for pedestrians.

---

**ADD DETECTION.**

Add detection for motorists on the minor streets and push buttons for pedestrians to cross the major street to convert the signal to semi-actuated.

Benefits

- Improves traffic flow and reduces delay on the major street because the major street receives the green indication until a vehicle arrives on the minor street or a pedestrian pushes the pushbutton to cross the major street.
- May reduce delay for motorists on the minor street and pedestrians crossing the major street, especially during off-peak periods.
- May reduce delay for pedestrians crossing the minor street with signal operating in rest-in-walk.

Limitations

- Requires pedestrians crossing the major street to push a pushbutton to receive the WALK indication.

Next steps

- Perform a multi-modal traffic study and evaluate the signal in pre-timed and semi-actuated modes to determine the impacts of changes from pre-time to semi-actuated operation.
- Perform a signal warrant study. If the peak hour warrant is the only warrant met, consider actuation, per section 4C.04 of the 2009 MUTCD.
- Confirm that detection works for bicyclists. Bicyclists should not be required to leave the roadway to push a push button, thus they should have adequate in-lane detection. Loop detectors designed and marked for bicyclists are preferred, but video detection can be used.

## CITY OF BIRMINGHAM MULTIMODAL TRANSPORTATION PLAN EIGHT INTERSECTION RECOMMENDATIONS

### 2.3 OAK AND CHESTERFIELD



#### RECOMMENDATIONS

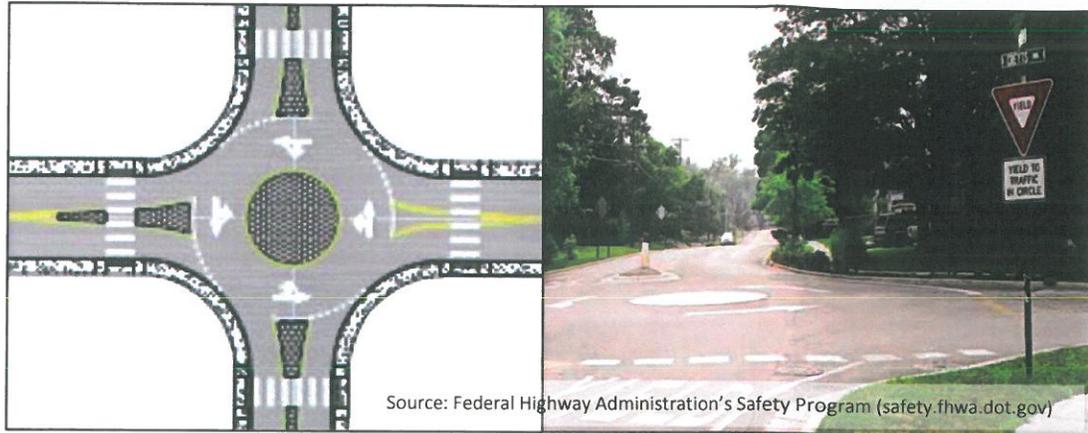
Consider the following recommendations at the intersection of Oak Avenue and Chesterfield Avenue:

##### General Recommendation

- Implement education and encouragement Safe Routes to School programs.
  - Benefits
    - Encouraging walking and bicycling to school can reduce traffic congestion on streets adjacent to this intersection, improving safety and operations at this intersection.
    - Implementing a drop-off and pick-up procedure specific to the school needs and educating students and parents on how to safely cross the street can improve efficiency and safety of operations.
    - Schools can make small programmatic changes with a large impact.
  - Next Steps
    - Encourage Quarton Elementary School to utilize National Center for Safe Routes to School resources (<http://guide.saferoutes.org/>) and the Michigan Safe Routes to School program (<http://saferoutesmichigan.org/>) to improve safety and health of their students. Michigan provides one-on-one training and technical assistance.

##### Roundabout Alternative

- Remove the signal and convert the intersection to a roundabout. A roundabout is a circulation intersection where motorists entering the roundabout yield to motorists circulating within the circulatory roadway.



#### Benefits

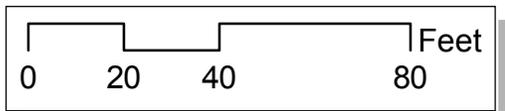
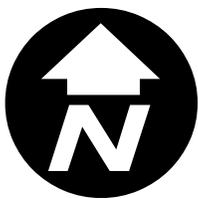
- Minimizes potential conflicts as all motorists must only yield to pedestrians and motorists already in the roundabout.
  - Improves traffic flow at low-volume intersections because there is constant traffic flow through the roundabout and no approach is ever stopped at a red light.
- Limitations
    - Pedestrians must divert somewhat from their natural path on the crosswalk to cross at a roundabout crosswalk, which is located before the entry flare of the roundabout.
    - Pedestrians must wait to cross until motorists yield to them or they have an adequate gap in traffic.
  - Next steps
    - Evaluate construction feasibility for a roundabout with an inscribed circle diameter of 45 to 90 feet, based on the 2010 National Cooperative Highway Research Program (NCHRP) Report 672.
    - Collect traffic counts and perform a traffic analysis. If total traffic at this intersection is fewer than 15,000 vehicles per day, a roundabout is feasible, based on the NCHRP Report 672. If total traffic at the intersection is greater than 15,000 vehicles per day, a detailed capacity analysis based on Chapter 21 in the 2010 Highway Capacity Manual should be performed.

#### **Signalized Alternative**

- Add detection and convert the intersection to semi-actuated operation.
- Extend hours of flashing operation. This could be implemented as a short-term solution.
- Add curb extensions, especially on Oak Avenue at southwest corner where flexible posts are currently preventing parking on the corner.
- Update pedestrian times (i.e. add pedestrian buffer time and adjust flashing DON'T WALK times).

**Stop-Controlled Alternative**

- Remove the signal and convert intersection to stop-controlled operation.
- Add curb extensions, especially on Oak Avenue at southwest corner where flexible posts are currently preventing parking on the corner.

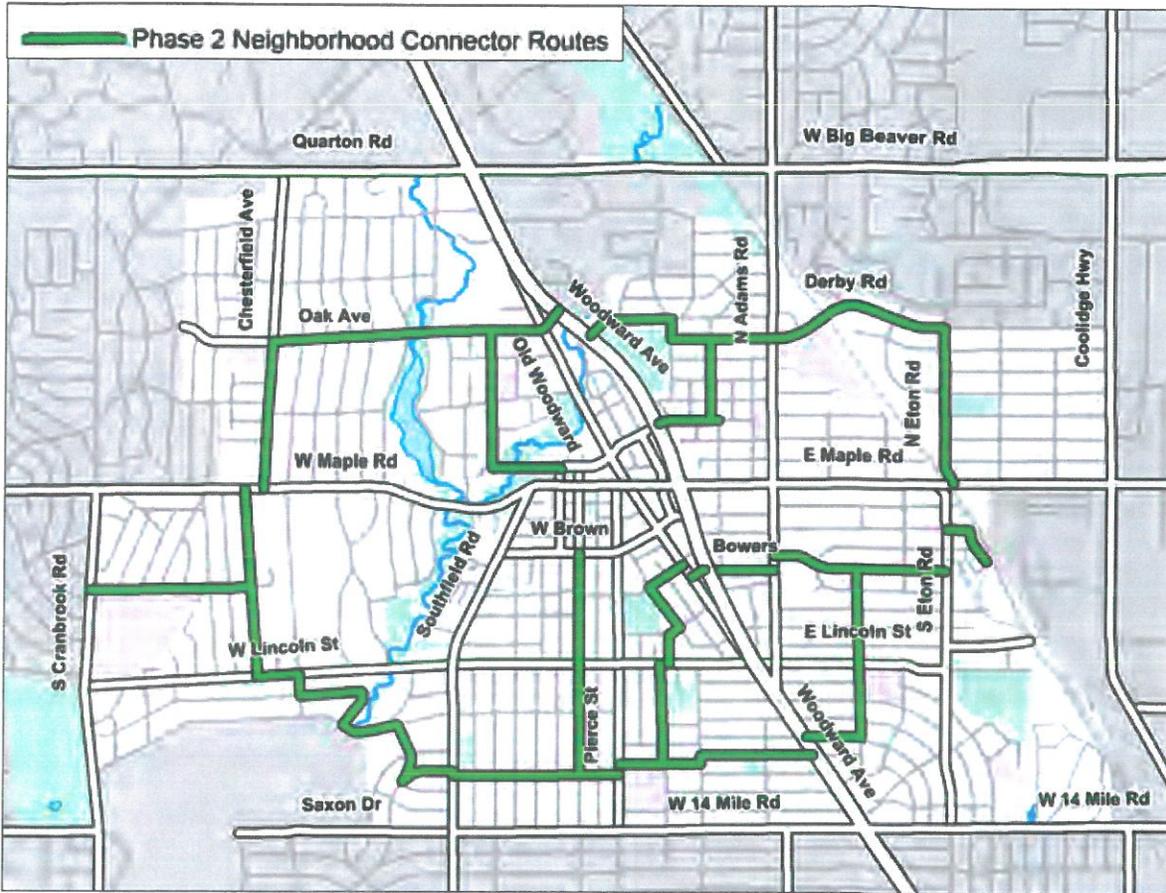


# SW CORNER CHESTER & MAPLE CONCEPT PLAN

DATE: JUNE 13, 2014

**PHASE 2: PROPOSED NEIGHBORHOOD CONNECTOR ROUTES**

The following map displays the neighborhood connector routes that should be implemented first. Initially, implementation along these routes is as simple as providing wayfinding signage identifying the direction of the route and key destinations. Eventually, other enhancements such as rain gardens, traffic calming measures, and street art may be incorporated. Please note that some of these routes are dependent on road crossings which are proposed in Phase 1 and Phase 2.



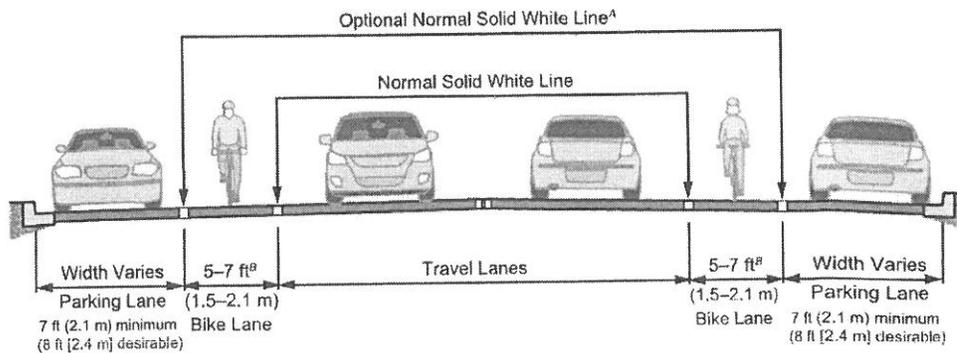
In Phase 2 only wayfinding signage is proposed. In the future, the City may consider adding some additional enhancements such as mini traffic circles, pavement markings, chicanes, street diverters, and pedestrian street lighting.

Add shared lane markings to the following corridors:

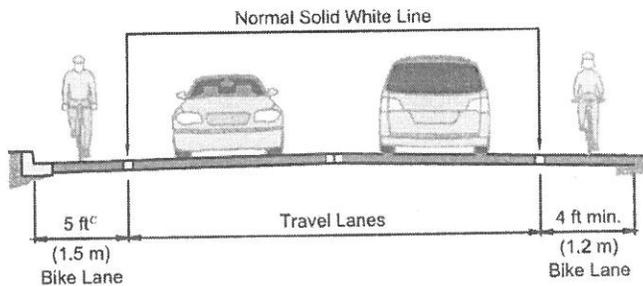
- Derby Road between N Adams Road and the Railroad Overpass (2013 reconstruction project)
- Derby Road between the Railroad Overpass and N Eton Road (2014 resurfacing project)
- Lincoln Street between Southfield Road and Ann Street (2014 resurfacing project)
- N Eton Road between Yorkshire Road and E Maple Road (2014 reconstruction project)
- W Maple Road between Cranbrook Road and Waddington Street (2015 resurfacing project)
- N Old Woodward Avenue between Willits Street and W Maple Road (2016 reconstruction project)
- S Old Woodward Avenue between W Maple Road and E Brown Street (2016 reconstruction project)
- S Old Woodward Avenue between E Brown Street and Landon Road (2017 reconstruction project)

Four new road crossings are planned on S Eton Road between E Maple Road and E Lincoln Street in 2013. The plans for these crossing include basic improvements such as pavement markings. As part of Phase 2 it is recommended that curb extensions be implemented at these crossing locations as well.

PHASE 1 INCIDENTAL PROJECTS:				
Road	From	To	Quantity	Unit
<b>Bike Lanes:</b>				
N Eton Rd	Yorkshire Rd	Derby Rd	0.40	MI
W Maple Rd	Waddington St	Southfield Rd	1.12	MI
Oak Ave	Chesterfield Ave	Lake Park Dr	0.40	MI
<b>Shared Lane Markings (placed every 200' - 250'):</b>				
Derby Rd	N Adams Rd	Railroad Overpass	0.17	MI
Derby Rd	Railroad Overpass	N Eton Rd	0.36	MI
Lincoln St	Southfield Rd	Ann St	0.80	MI
W Maple Rd	Cranbrook Rd	Waddington St	0.20	MI
N Old Woodward Ave	Willits St	W Maple Rd	0.10	MI
S Old Woodward Ave	W Maple Rd	E Brown St	0.17	MI
S Old Woodward Ave	E Brown St	Landon Rd	0.43	MI
<b>Road Crossings</b>				
S Eton Rd	at Villa Rd		1	EACH
S Eton Rd	at Bowers St		1	EACH
S Eton Rd	at Holland St		1	EACH
S Eton Rd	at Cole St		1	EACH



**On Street Parking**



**Parking Prohibited**

**Notes:**

- <sup>A</sup> An optional normal (4–6-in./100–150-mm) solid white line may be helpful even when no parking stalls are marked (because parking is light), to make the presence of a bicycle lane more evident. Parking stall markings may also be used.
- <sup>B</sup> Bike lanes up to 7 ft (2.1 m) in width may be considered adjacent to narrow parking lanes with high turnover.
- <sup>C</sup> On extremely constrained, low-speed roadways (45 mph [70 km/h] or less) with curbs but no gutter, where the preferred bike lane width cannot be achieved despite narrowing all other travel lanes to their minimum widths, a 4-ft (1.2-m) wide bike lane can be used.

Figure 4-13. Typical Bike Lane Cross Sections

Where bicycle lanes are provided, appropriate marking or signing should be used so the lanes are not mistaken for motor-vehicle travel lanes or parking areas. For roadways with no curb and gutter and no on-street parking, the minimum width of a bicycle lane is 4 ft (1.2 m). For roadways where the bike lane is immediately adjacent to a curb, guardrails, or other vertical surface, the minimum bike lane width is 5 ft (1.5 m), measured from the face of a curb or vertical surface to the center of the bike lane line. There are two exceptions to this:

- In locations with higher motor-vehicle speeds where a 2-ft (0.6 m) wide gutter is used, the preferred bike lane width is 6 ft (1.8 m), inclusive of the gutter.
- On extremely constrained, low-speed roadways with curbs but no gutter, where the preferred bike lane width cannot be achieved despite narrowing all other travel lanes to their minimum widths, a 4-ft (1.2 m) wide bike lane can be used.

Along sections of roadway with curb and gutter, a usable width of 4 ft (1.2 m) measured from the longitudinal joint to the center of the bike lane line is recommended. Drainage inlets and

**DRAFT RESOLUTION SUPPORTING COMPLETE STREETS FOR THE CITY OF BIRMINGHAM, June 2011** City of Birmingham, Oakland County, Michigan

WHEREAS, Complete Streets are defined as a design framework that enables safe and convenient access for all users, including pedestrians, bicyclists, transit riders, and drivers of all ages and abilities; and

WHEREAS, the Michigan Legislature adopted Public Acts 134 and 135 of 2010 to enact Complete Streets legislation that requires the Michigan Department of Transportation to consider all users in transportation related projects; and

WHEREAS, Complete Streets are achieved when transportation agencies routinely plan, design, construct, re-construct, operate, and maintain the transportation network to improve travel conditions for bicyclists, pedestrians, transit, and freight in a manner consistent with, and supportive of, the surrounding community; and

WHEREAS, development of multi-modal transportation infrastructure, including accommodations for pedestrian, bicycle, and transit riders, offers long-term cost savings by reducing costly infrastructure retrofits and opportunities to create safe and convenient non-motorized travel; and

WHEREAS, streets that support and invite multiple uses, including safe, active, and ample space for pedestrians, bicycles, and transit are more conducive to the public life and efficient movement of people than streets designed primarily to move automobiles; and

WHEREAS, increasing active transportation (e.g. walking, bicycling and using public transportation) offers the potential for improved public health, economic development, a cleaner environment, reduced transportation costs, enhanced community connections, social equity, and more livable communities; and

WHEREAS, existing City of Birmingham plans and policies already support principles that facilitate progress toward developing a network of Complete Streets consistent with the objectives of the Michigan Complete Streets legislation and with the practices promoted by the National Complete Streets Coalition; and

WHEREAS, Complete Streets principles have been and continue to be adopted nation-wide at state, county, MPO, and city levels in the interest of proactive planning and adherence to federal directives that guide transportation planning organizations to promote multi-modal transportation options and accessibility for all users; and

WHEREAS, the adoption of this Complete Streets Proclamation allows the City of Birmingham to remain competitive in the pursuit of future state transportation project funding.

NOW, THEREFORE, BE IT RESOLVED, that the City of Birmingham City Commission hereby declares its support of Complete Streets policies and further directs City staff to develop a set of proposed policies and procedures to implement Complete Streets practices to make the City more accommodating to all modes of travel, including walkers, bicyclists and transit riders, of all ages and abilities.

# STATE TRANSPORTATION COMMISSION POLICY ON COMPLETE STREETS

July 26, 2012

## **Background**

Public Act 135 of 2010 requires the development of a complete streets policy to promote safe and efficient travel for all legal users of the transportation network under the jurisdiction of the Michigan Department of Transportation (MDOT). Public Act 135 defines complete streets as "...roadways planned, designed, and constructed to provide appropriate access to all legal users in a manner that promotes safe and efficient movement of people and goods whether by car, truck, transit, assistive device, foot, or bicycle."

The Complete Streets Advisory Council (CSAC) also was created by Public Act 135 of 2010 to advise the State Transportation Commission (STC) as it developed this policy. CSAC members were appointed by the Governor and represent a broad cross-section of transportation system owners, users, and stakeholders, including MDOT and the STC.

The STC is authorized by the State Constitution to set policy for MDOT, and in that role has enacted this Complete Streets policy. MDOT is responsible for implementation of Commission policy for those portions of the transportation system that are under its jurisdiction – about 10,000 of the 110,000 miles of roads, bridges and highways in Michigan. In addition, MDOT, in its role of administering the local federal-aid program in Michigan, can help local jurisdictions understand the provisions of this policy and work with them to further the development of complete streets.

## **Vision**

The STC supports the vision statement as adopted by the CSAC.

- A *transportation network* that is accessible, interconnected, and multimodal and that safely and efficiently moves goods and people of all ages and abilities throughout the State of Michigan.
- A *process* that empowers partnerships to routinely plan, fund, design, construct, maintain and operate complete streets that respect context and community values.
- *Outcomes* that will improve economic prosperity, equity, accessibility, safety, and environmental quality.

## **Purpose**

This policy provides guidance to MDOT for the planning, design, and construction or reconstruction of roadways or other transportation facilities in a manner that promotes complete streets as defined by the law, and that is sensitive to the surrounding context.

MDOT will pursue a proactive and consistent approach to the development of complete streets, in keeping with its mission to provide the highest quality integrated transportation services for economic benefit and improved quality of life. A successful complete streets approach will require mutual commitment and collaboration on the part of transportation agencies, stakeholders and the public to identify appropriate opportunities to plan, develop, construct, operate and maintain infrastructure without undue costs or scheduling burdens.

MDOT will consider complete streets features for roadways and other transportation facility construction or reconstruction projects it undertakes, or permits other public or private entities to construct within the state trunk line right of way, working through its context sensitive solutions process. The department will use this process and work with customers, local residents, road users and stakeholders to analyze proposed projects for the opportunity to design and construct facilities that contribute to complete streets. As part of that analysis, the department will consider:

- Local context and recognize that needs vary according to regional urban, suburban, and rural settings;
- The functional classification of the roadway, as defined by the Federal Highway Administration and agreed to by MDOT and local transportation agencies;
- The safety and varying mobility needs of all legal users of the roadway, of all ages and abilities, as well as public safety;
- The cost of incorporating complete streets facilities into the project and whether that cost is proportional to the overall project cost, as well as proportional to the current or future need or probable use of the complete streets facility;
- Whether adequate complete streets facilities already exist or are being developed in an adjacent corridor or in the area surrounding the project;
- Whether additional funding needed to incorporate the complete streets facility into the project is available to MDOT or as a contribution from other transportation or government agencies from federal, state, local or private sources.

MDOT is encouraged to use low-cost solutions to increase safety and mobility where practical, but to recognize that more costly improvements may be needed on some facilities.

MDOT also is encouraged to take a network approach to the provision of multi-modal access, and recognize that improvements to a part of the road network outside MDOT's jurisdiction might provide a more viable alternative and safer access for all users. MDOT will encourage local jurisdictions to develop local and regional transportation plans that ensure projects are consistent and appropriate to the context. MDOT will work with local road agencies and its grant and funding recipients to encourage network continuity. Responsibilities for operation and maintenance of facilities in MDOT right-of-way shall be determined and outlined prior to construction of such facilities, except where a pre-existing maintenance agreement is in place. Maintenance agreements will be required as a provision of the entire project. Local responsibility for complete streets facility maintenance, in particular for facilities outside the travel portion of a street, such as transit and non-motorized facilities, will be critical for many projects.

MDOT will recognize the long-term nature of transportation investment and anticipate not only current transportation demand, but also likely future uses as well, in considering and developing complete streets. Depending on the context and potential use, provisions may be needed to ensure safe and convenient access for all users.

Complete streets and their viability can be impacted by planning and permitting as well as infrastructure. MDOT will work with local governments as needed to encourage thoughtful planning and permitting that supports the goals and the vision of this complete streets policy.

### **Implementation**

By December 31, 2013, MDOT will develop or revise procedures and guidelines needed to implement this policy. As part of that effort, MDOT shall establish a clear procedure for reviewing and approving exceptions to the policy, the conditions under which an exception may be granted, and who may approve such exceptions.

Facilities will be designed and constructed in accordance with current applicable laws and regulations, approved engineering standards and accepted best practices while preserving continued eligibility for federal-aid.

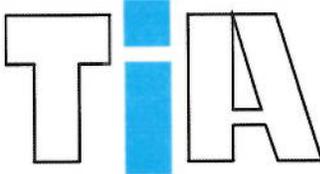
MDOT will report back to the STC annually after the adoption of this policy to: 1) give a progress report on implementation, including any information/examples to gauge MDOT's performance; and 2) to report any exceptions granted and the reasons for those exceptions. This reporting will include the

required Context Sensitive Solutions (CSS) annual review as required by the STC policy adopted May 26, 2005.

This policy will apply to all projects undertaken by MDOT, large and small, considerate of the level of the proposed project work. As part of MDOT's responsibility to FHWA to administer the local federal-aid program in Michigan, MDOT shall work with local road agencies that are undertaking road or bridge projects with federal funds, and encourage them to observe the provisions of this policy in order to help address the need for a network of complete streets throughout Michigan.

In addition, the STC encourages MDOT to continue its education support programs for staff and partner with others to provide training and information for all legal users and law enforcement regarding shared responsibilities.

This policy on complete streets is intended to supplement Commission Policy Number 10138 on Context Sensitive Solutions (CSS).



**TRAFFIC IMPROVEMENT ASSOCIATION**  
**FACT SHEETS**

## “MAYBE A STOP SIGN WILL SLOW TRAFFIC ON OUR STREET?”

Stop signs installed in the wrong places for the wrong purposes usually create more problems than they solve.

One common misuse of Stop signs is to arbitrarily interrupt traffic, either by causing it to stop or by causing such an inconvenience that motorists are forced to use other routes. Studies conducted in many parts of the country show that there is a high incidence of intentional violations where Stop signs are installed as “nuisances” or “speed breakers”. These studies show that speed was only reduced in the immediate vicinity (about 100 to 150 feet) of the “nuisance” stop signs. But, speeds were actually higher between Stop signs than they would have been if these signs had not been installed. These same studies show that drivers increase their speed between unwarranted Stop signs to make up for lost time. Because of these studies and the increased speeds of drivers on streets with unwarranted Stop signs, the Michigan Manual of Uniform Traffic Control Devices clearly states that “Stop signs should not be used for speed control.”

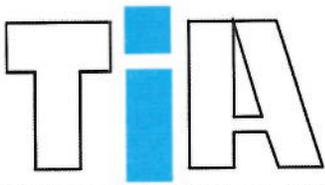
At the right place and under the right conditions, a Stop sign tells drivers and pedestrians who has the right of way. Nationally recognized standards have been established to determine when stop signs should be used. These standards, or “Warrants,” are:

- 1) Intersection of a less important road with a main road where the normal right-of-way rule is unduly hazardous,
- 2) Street entering a through highway or street,
- 3) Unsignalized intersection in a signalized area, or
- 4) Other intersections where a combination of high speed, restricted view, and serious crash record indicates a need for control by the Stop sign.

Before a Stop sign can be installed, a traffic study must be conducted to determine the prevalent speeds of vehicles, sight distance restriction between all approaching vehicles and analysis of crash data.

Prior to the application of these Stop sign Warrants, consideration should be given to less restrictive measures, such as a Yield sign.

Most drivers are reasonable and prudent, but, when confronted with unreasonable restrictions, they frequently violate them and develop a general contempt for all traffic controls – often with tragic results.



**TRAFFIC IMPROVEMENT ASSOCIATION**  
**FACT SHEETS**

## “WHAT ARE ‘WARRANTS’ FOR TRAFFIC CONTROL DEVICES?”

A Warrant for any traffic control device (sign, signal or pavement marking) is the minimum criteria that must be met before such a device can be installed. Meeting a warrant does not mean a traffic control device must be installed. The **Michigan Manual of Uniform Traffic Control Devices** spells out these warrants to ensure that each device:

- 1) fulfills a need,
- 2) commands attention,
- 3) conveys a clear, simple meaning,
- 4) commands respect, and
- 5) gives adequate time for proper response.

**TRAFFIC SIGNALS** have eleven Warrants, at least one of which must be met before a signal can be installed. These Warrants state the number of vehicles, pedestrians, crashes or combination of these that must exist before a signal can be installed.

**STOP SIGNS** have their own set of four Warrants:

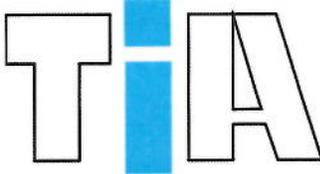
- 1) Intersection of a less important road with a main road where the normal right-of-way rule is unduly hazardous,
- 2) Street entering a through highway or street,
- 3) Unsignalized intersection in a signalized area, or
- 4) Other intersections where a combination of high speed, restricted view, and serious crash record indicates a need for control by the Stop sign.

Prior to the application of these Stop sign Warrants, consideration should be given to less restrictive measures, such as a Yield sign.

There are also specific Warrants for warning signs (Curve Ahead, School Crossing, Construction Zone, etc.), paint markings (crosswalks, lane lines, pavement edge markings, etc.)

Any devices that are not in the Manual are not traffic controls and cannot be used. These include “Slow Children” and “Slow” signs. In addition to meeting the Warrants, regulatory signs (Stop, Speed Limits, Parking, etc.) must also have an official Traffic Control Order signed by the Traffic Engineer and filed with the local clerk.

The decision to install a traffic control device should be made on the basis of an engineering study, the Warrants and engineering judgments by a qualified traffic engineer. Effective and safe traffic control depends on the appropriate application of traffic control devices and reasonable law enforcement. These Warrants are based on that concept.



**TRAFFIC IMPROVEMENT ASSOCIATION**  
**FACT SHEETS**

**“TO INSTALL OR NOT TO INSTALL;  
THAT IS THE QUESTION.”**

Efforts to achieve an acceptable balance between good practice and good politics in government are a universal problem.

Elected officials’ challenge in weighing acceptable practice against politics most often surfaces in requests for traffic signs and signals. There are few issues that more frequently divide traffic authorities and elected public officials. The installation of a “political” sign or signal, one which does not meet established warrants, may satisfy a small group, but the problems created in non-compliance, risk, liability and in the public’s loss of respect for the traffic engineering process are significant and lasting.

The following are two examples of requests for traffic control devices, (neither of which meets established warrants or standards) in which cost/benefit decisions must be weighed:

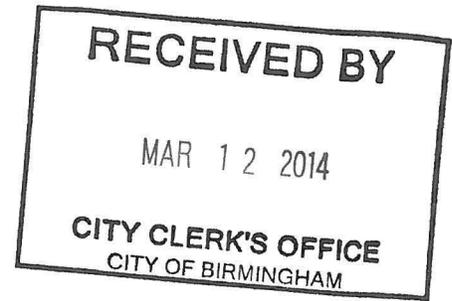
- A large corporate taxpayer requests a traffic signal at a factory exit driveway as a matter of convenience for its employees.
- Residents want Stop signs installed on their residential street to control what is perceived as a speeding problem, even though there is virtually no crash history. There is a strong probability of a high rate of non-compliance with potential for increased accident experience.

The first consideration in such requests is usually given to the perceived needs of those who initiated the request. Both the immediate and long-range impact of the decisions should be carefully weighed and the answers to the following questions should be considered:

- Does it meet established warrants?
- What is the likelihood of non-compliance?
- What is the potential for an increase in traffic crashes and liability?
- What will be the impact on traffic flow (delays with resulting costs, energy losses, air pollution, noise generation, etc.)?
- Who would be opposed to this change?

Perhaps the most important questions to ask are these:

- Will this help maximize both the safety and efficiency of the pedestrian and vehicular traffic?
- Will it help ensure that all of our citizens will maintain a healthy respect for our community’s total traffic control system?



March 6, 2014

Birmingham City Commission  
151 Martin Street  
Birmingham, MI 48009

Dear Commissioners:

Mills Pharmacy & Apothecary, LLC, the major anchor of the Maple Chesterfield Plaza, would like to voice our opposition to the proposed conversion of West Maple Road from 4 lanes to 3, as described in the October 14, 2013 draft of the Multi-Modal Transportation Plan. This would create considerable amount of high traffic and congestion due to stopped vehicles and a waste of taxpayer money used on bike paths and crossings used by few residents.

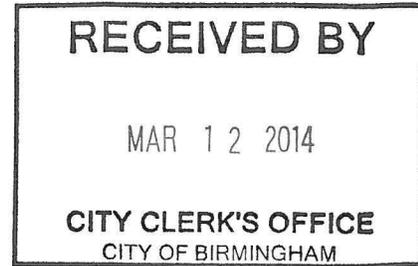
In light of our concerns, we are asking that you delete the West Maple proposal prior to approving the overall Multi-Modal Plan. Please enter this letter into the minutes of the November 25, 2013 meeting.

Sincerely,

Pierre Boutros, Owner  
Mills Pharmacy & Apothecary, LLC  
1744 West Maple  
Birmingham, MI 48009  
248-644-5060

March 6, 2014

Birmingham City Commission  
151 Martin Street  
Birmingham, MI 48009



Dear Commissioners:

The Maple Chesterfield Association, would like to voice our strong opposition to the proposed conversion of West Maple Road from 4 lanes to 3, as described in the October 14, 2013 draft of the Multi-Modal Transportation Plan. This would create considerable amount of high traffic and congestion due to stopped vehicles and create added amount of continued traffic diverted through the alley way behind the plaza. This is already being highly used because of impatient drivers not wanting to wait for the light at Chesterfield and Maple and we feel that would make very unsafe conditions for our pedestrians walking from the parking lot to our business.

In light of our concerns, we are asking that you delete the West Maple proposal prior to approving the overall Multi-Modal Plan. Please enter this letter into the minutes of the November 25, 2013 meeting.

Sincerely,

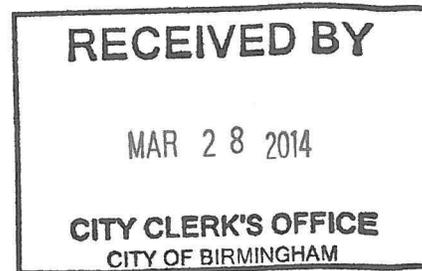
A handwritten signature in black ink, appearing to read "Pierre Boutros".

Pierre Boutros, President  
Douglas Cale, Vice President  
David Underdown, Secretary

Maple Chesterfield Association  
1744 West Maple Road  
Birmingham, MI 48009  
248-633-2872

# First Presbyterian Church of Birmingham

Everybody's  Church



March 25, 2014

Birmingham City Commission  
51 Martin Street  
Birmingham, MI 48009

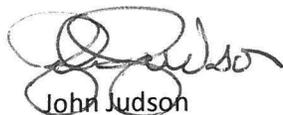
Dear Commissioners,

The Session of the First Presbyterian Church of Birmingham (ruling body of elders) would like to express its opposition to the planned conversion of West Maple Road from four lanes to three. We are concerned that this project will cause disruption and congestion in the area. This does not just affect our Sunday services but high traffic volume during the week as we host a variety of meetings, both for the community and members of our congregation.

Therefore, we request that you delete the West Maple proposal from the Multi-Modal plan prior to the final decision. The Session also requested that in the future, you consider widening this portion of Maple Road into five lanes.

Please enter our objection into the minutes of your meeting.

Sincerely,



John Judson

Pastor and Moderator of

The Session of First Presbyterian Church of Birmingham

**8A**

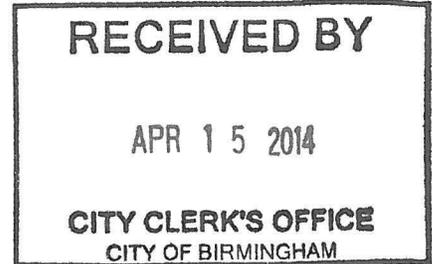
RICHARD C. ROLLINS  
466 ASPEN ROAD  
BIRMINGHAM, MI 48009-1656

ROLLINSTAX@MSN.COM

(248)932-3500  
248) 932-0826 FACSIMILE

April 11, 2014

Mayor Scott Moore  
City Commissioners  
City of Birmingham  
151 Martin  
PO Box 3001  
Birmingham, MI 48012-3001



Re: W. Maple

Dear City Commissioners:

As a Birmingham resident on Aspen, the duty of government is do what is best for the long term growth and development of Birmingham. To make it more than just an upscale city or one step up from Royal Oak or Ferndale or Berkley. Birmingham is great but it can be so much better. The City has so many opportunities to rise to the challenge of making Birmingham an enriching cultured and truly beautiful city. To make it more functional and aesthetic.

For example, West Maple and Woodward are nothing more than traffic speed lanes to move traffic at a high volume and at high speeds through the city. Maple is being used as the cross cutter for east to west corridor traffic between Telegraph and Woodward, for the middle of Oakland county traffic. Ending high speed pouring traffic into a two lane downtown Birmingham. Cutting north and south Birmingham residential neighborhoods with a high volume, high speed road that is totally ugly . Roads can be so much more. Maple can be so much more. Woodward can be so much more. Making Maple a one lane each with a Blvd with islands with trees in the middle and at the same time slowing traffic down in our residential Birmingham and reducing the noise of Maple. We see what has been done in downtown Birmingham along northern Woodward north of Maple.

I have noticed one of the objections to this change on Maple is a death over many years ago of an individual crossing Maple. I would think that the change would be promoted by these individuals and not objected to it: Less lanes, less traffic, island to cross to, etc. The other objections is it will hurt the Birmingham business district. I also cannot understand this objection either. Downtown Birmingham on Maple is already one lane each way. Booming Santa Barbara has closed all traffic on the main streets. Most of the traffic just drives through Birmingham onto Woodward; So less speed, less traffic actually makes for a more friendly and inviting city. To me this is a win, win. It makes for a more friendly Birmingham.

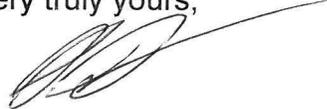
Government must do what is best for the long term growth and beauty of a city. Many countries have had Popes and Napoleon and Kings and Emperors to make cities full of life and beauty and boulevards and parks. City government is elected to make the difficult decisions even if many of it's residence want the same as the past.

On another note, outdoor art installations can make a city alive and enriching. Bringing people from within Birmingham, to residences from other cities and States to come to see art throughout a remarkable downtown city Birmingham and improve downtown both for business and beauty. Increased business for downtown retail doesn't come from putting up tent signs in the middle of the sidewalk. It makes retail look desperate for business.

Look at what Grand Rapids is doing with art installations. I have always been amazed that Cranbrook, one of the great art facilities in the world is only two miles from Birmingham and there has been no spinoff from Cranbrook to Birmingham in bringing large art installations to the parks and streets. The art presently in Birmingham is one step up from high school. Where is Richard Serra works in our affluent city. I was on the art board of Birmingham for one day and I quit after I realized they spent a whole meeting discussing the cost of a small art plaque and the art of one of the art board members was actually displayed in our city. Also when at the same time they, the city, decided to take City general funds of over \$800,000 to build better golf club houses. Please, give me a break.

Let's take the big steps necessary to improve our City. Let us lead and become so much more. Let Birmingham grow to be so much more with Maple as a Blvd with slower and less traffic and more art in our city.

Very truly yours,

A handwritten signature in black ink, appearing to read 'R. Rollins', with a long, sweeping horizontal line extending to the right.

RICHARD C. ROLLINS

RCR/dsf



April 30, 2014

Richard Rollins  
466 Aspen Road  
Birmingham, MI 48009

Dear Mr. Rollins,

Your letter of April 11, 2014 to Mayor Scott Moore and the City Commission has been forwarded to me by Mayor Moore. Thank you for taking the time to share your concerns with regard to West Maple Road and public art.

I appreciate your desire to encourage the City's efforts in becoming more functional and aesthetic. One initiative the City is in the process of implementing, which will serve to enhance both Maple Road and Woodward Avenue in the future, is the establishment of a new Multi-Modal Transportation Board. This new board is tasked with evaluating our road projects from a perspective of mobility other than vehicular. One of their first projects will be working on enhancements to Maple Road, which is slated for construction next year. You are welcome to follow their efforts as their meeting dates will be made available on our website ([www.bhamgov.org](http://www.bhamgov.org)) once the board is formed.

In regard to your suggestions for enhancing public art in the City and creating a relationship with Cranbrook to share art installations, I will share them with the city's Public Arts Board.

Again, thank you for sharing your suggestions for improving Birmingham.

Sincerely,

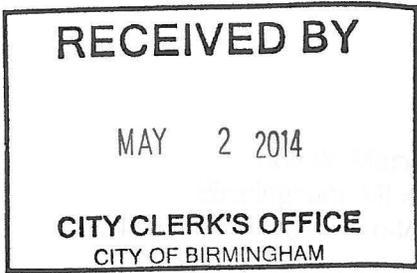


Joseph A. Valentine  
Interim City Manager

cc: City Commission  
Public Arts Board



March 20, 2014



Birmingham City Commissioners  
151 Martin Street  
Birmingham, Michigan 48009

Re: Proposed Plan for West Maple Road

Dear Commissioners,

On behalf of the Trustees of Birmingham First United Methodist Church I am writing to voice our opposition to the conversion of West Maple Road from four to three lanes as described in Part 5.2 of the city's Multi-Modal Transportation plan. As church trustees we are responsible for the safety of people when they are at church, and we believe the plan as currently envisioned will create traffic safety problems for our church community.

We are concerned about the impact the plan will have on drivers' ability to safely enter and exit the church's parking areas and to gain access onto Maple Road.

Every day of the week, hundreds of people drive to the church — to attend four Sunday services, weekday programs for people of all ages, church and community group meetings, sports activities, monthly Friday night youth gatherings, and events such as weddings, concerts, and rummage sales. Maple is the only major east-west thoroughfare in Birmingham, and there are times when it is very challenging to turn onto Maple from Pleasant Street or from the church's east driveway. More than a few collisions have occurred at the intersection of Maple and Pleasant. Narrowing the road to three lanes, removing stoplights at Chesterfield and Lake Park and adding bike traffic will likely lead to more traffic congestion which will make it even more difficult and dangerous for drivers attempting to make turns onto Maple.

We respectfully ask that you remove the 5.2 plan for West Maple Road from Birmingham's Multi-Modal Transportation Plan.

Sincerely,

Susan Ives, Chairperson, Board of Trustees

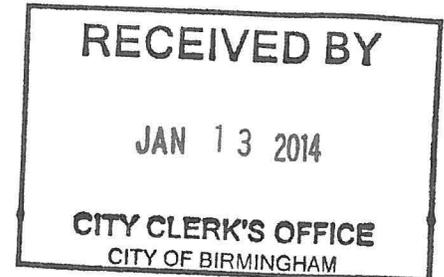


1728 West Maple Road  
Birmingham, MI 48009

Tel: 248.723.8008  
[birmingham@schokolad.com](mailto:birmingham@schokolad.com)  
[www.BirminghamChocolate.com](http://www.BirminghamChocolate.com)

January 9, 2014

Birmingham City Commission  
151 Martin Street  
Birmingham, MI 48009



RE: West Maple Road Lane Conversion proposal

Dear Commissioners:

As a cyclist I question whether 5.5 feet is wide enough considering the speed typified by traffic on Maple Road. I would suggest either a single wider lane or none at all. I really think most cyclists will (should) prefer to use the side streets or sidewalks and avoid confrontations with turning traffic and 40 MPH vehicle speeds.

As a business owner on West Maple Road at Chesterfield, I am concerned about the existing traffic condition that occurs for vehicles moving east and making a U-turn into the parking spaces in front of the businesses from Comerica Bank to Douglas Cleaners. Often drivers are unable to complete this turn and must back up into westbound Maple Road. Irate horns and screeching tires are common occurrences. This is an accident waiting to happen. It would be completely unnecessary if drivers would turn left at Chesterfield and avail them of parking in the rear. At the very least, there should be a "No left turn – park in rear" signage. Having a turn lane resulting from a 4/3 lane conversion might be helpful but it is not clear that it would prevent drivers from having to back into oncoming traffic on Maple.

A handwritten signature in black ink, appearing to read "Douglas Cale".

Douglas Cale  
Owner, Schokolad



Joe Valentine &lt;jvalentine@bhamgov.org&gt;

---

## W. Maple/Chesterfield traffic/construction

1 message

---

**Don Studt** <dstudt@bhamgov.org>

Wed, Jan 22, 2014 at 12:14 PM

To: birmingham@schakoad.com, Robert Bruner &lt;RBruner@bhamgov.org&gt;, Joe Valentine &lt;jvalentine@bhamgov.org&gt;, Paul O'Meara &lt;Pomeara@bhamgov.org&gt;, Mark Clemence &lt;Mclemence@bhamgov.org&gt;

Your letter of Jan 9 to the City Commission has been referred to me for response.

Traffic lane configuration for this area will be reviewed, along with input from the new multi-modal traffic committee, as the proposed project moves forward. Your letter will be included.

Regarding the placement of a "No Left Turn" sign on the west access to the alley and the access drive--This has been reviewed several times by the current Traffic and Safety Board over the years.

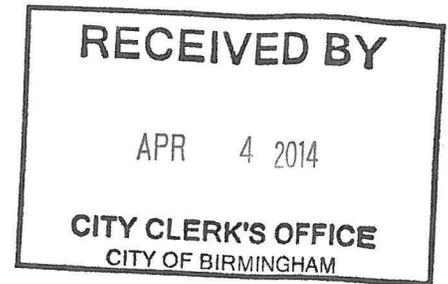
The buildings in that strip were designed specifically so that EB traffic would have access to the rear parking area and the access drive without using Chesterfield. Strong objections were raised, from Jerry Mills of Mills Pharmacy, proprietors of the Cleaners and bank management to any change.

My own opinion is that merely placing a sign in that location would be fruitless as it is a designed and established route. A physical barrier would be the only efficient way to eliminate access to that alley, and other business may not agree to that.

Please call me if you'd like to discuss this further.

Don Studt  
Chief of Police  
[248-530-1862](tel:248-530-1862)

**Birmingham Chocolate LLC**  
1728 West Maple Road  
Birmingham, MI 48009  
248-723-8008



March 31, 2014

Birmingham City Commission  
151 Martin Street  
Birmingham, MI 48009

Dear Commissioners,

As the owner of Birmingham Chocolate LLC (dba Schokolad Chocolate Factory) and a frequent cyclist, I am expressing my opposition to the proposed conversion of West Maple Road from four lanes to three.

- There are no alternate routes to absorb increased traffic pressure that might occur by reducing the number of lanes. Lincoln ½ mile to the south and Oak ½ mile to the north have schools and stop signs. Encouraging traffic to use these routes by constricting the flow on Maple makes no sense. Big Beaver is the nearest alternate through street but it is only two lanes west of Adams. Trying to push the same volume of traffic through a smaller pipe will only increase pressure, frustration and speed.
- As a cyclist and a runner, I avoid high traffic thoroughfares such as Maple road. I would always prefer Oak or Lincoln and would never allow a family member to cycle on Maple under any circumstance. You should not encourage children to ride bicycles on streets where speeds often exceed 40 MPH and cars are turning into side streets and driveways. A 5.5 foot wide bike path is minimal which makes the margin for error too small for such a busy road. To implement this proposal without making it illegal to phone/text and drive (statistically as risky as driving drunk) would be irresponsible.
- Eastbound traffic on Maple already makes U-turns into the parking row in front of our plaza. Often drivers are unable to complete the turn and actually have to back out into Maple in order to maneuver into the parking spaces. Reducing the number of lanes will only make this turn tighter and increase the risk. There are irritated drivers and near accidents at this site regularly.
- Drivers already use the alley next to Douglas Cleaners as a cut through from eastbound Maple to Chesterfield, cruising through the parking lot at excessive speed. I am concerned that this situation will only get worse.

Please delete the West Maple proposal from the overall Multi-Modal Transportation plan. Please enter this letter into the minutes of the appropriate meeting.

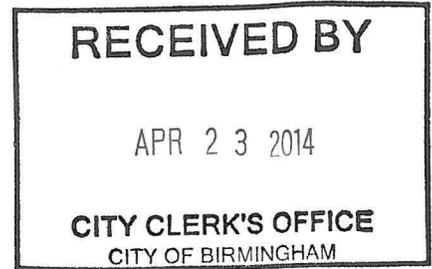
A handwritten signature in black ink, appearing to read "D. Cale".

Douglas Cale  
Owner  
Birmingham Chocolate LLC

**Arlington Shirley Neighborhood  
Birmingham, MI 48009**

April 19, 2014

Birmingham City Commission  
151 Martin Street  
Birmingham, MI 48012



Dear City Commissioners:

Thank you for providing our neighborhood with a copy of the city's Multimodal Transportation Plan in November of last year. During the past 6 months, our residents have reviewed the Plan and its ramifications to our neighborhood. The portion of the Plan that is most controversial is Section 5.2 (pages 120 and 121) regarding the proposal to convert West Maple Road from 4 to 3 lanes. A number of our residents spoke about the problems this conversion would cause at the 11-25-13 Commission Meeting.

To provide the Commission with a more precise measurement of resident opinions, two petitions were circulated in the neighborhood over the past 6 months—one in support of the West Maple lane conversion and one opposed to the conversion. As shown on the attached summary page, an overwhelming 98% of the residents signed the petition opposed to the conversion (102 signatures) and only 2% signed the support petition (2 signatures). Because the petitions reflect 80% of the occupied houses in the neighborhood, they are a statistically-valid sampling of neighborhood sentiment.

Neighborhood residents believe that our streets already have a vehicle cut-through problem and a 4/3 lane conversion would only make the problem worse. The conversion would also create an unacceptable level of congestion on West Maple Road due to its high volume of traffic (12,000 cars per day) and the inability to pass SMART buses, city trash trucks and urban forestry trucks making their normal stops under a 3-lane scenario. With the proposed one lane of traffic in each direction and no traffic signal light at Lake Park Road, our neighborhood residents would find it difficult to enter West Maple from Arlington and Shirley Roads. There is also a safety issue related to EMS/fire trucks trying to enter West Maple from the Chesterfield Fire Station with fewer lanes.

While our residents generally support alternative modes of transportation, the proposal to create bike paths on West Maple is not supported by the bicyclists in our neighborhood. A survey of both serious and casual bikers has shown that only 8% would even consider using West Maple bike paths if they were available. Is this a good way to spend taxpayer money and is it worth giving up two lanes of vehicle traffic on the only east/west, 4-lane artery out of the city in the event of a disaster where quick evacuation is needed?

Because of the petition results and the concerns described above, the signers of the opposed petition are requesting that the West Maple 4/3 lane conversion be deleted from the Multimodal Plan. Please read this letter at the next Commission Meeting where the Multimodal Plan is discussed and enter this letter into the minutes of that meeting.

Sincerely,

A handwritten signature in black ink that reads "James A. Mirro". The signature is fluid and cursive, with a large loop at the end of the last name.

James A. Mirro  
Petition Circulator

Attachment



Hawthorne Aspen Linden Neighborhood  
Birmingham, MI 48009

April 21, 2014

Birmingham City Commission  
151 Martin Street  
Birmingham, MI 48012



Dear Commissioners:

During the past few months, residents of the HAL neighborhood were invited to sign petitions supporting or opposing the proposal to convert West Maple Road from 4 to 3 lanes as contained in the city's Multimodal Plan. As shown on the attached page, 93% of the residents chose to sign the opposed petition and 7% chose to sign the support petition. All signers combined represent approximately 70% of the occupied houses in this neighborhood, a statistically-significant number from a sampling standpoint. The 93% opposition to the proposal represents an overwhelming majority of the residents in the neighborhood.

Of those signing the opposed petitions, the primary reasons given were anticipated congestion on West Maple Road and the difficulty of making a turn onto Maple Road from the three streets especially if the Lake Park Road signal light is removed as proposed in the Multimodal Plan. There is also little interest in bike paths on West Maple among the neighborhood residents. Therefore, most are opposed to spending tax money on this proposal and losing two lanes of traffic that are vital to a smooth flow of vehicles. While HAL neighborhood roads do not invite significant diverted traffic now, a lane conversion on West Maple could change this situation which would also negatively impact the neighborhood.

Based on the petition signatures attached and the reasons shown above, the signers of the opposed petition in the Hawthorne Aspen Linden Neighborhood are requesting the City Commissioners to delete the West Maple Road proposal from the Multimodal Plan. Please read this letter in the next meeting where the Multimodal Plan is discussed and include this letter in the minutes of that meeting.

Sincerely,

Fran Gross  
Petition Circulator

Attachment

# Hawthorne Aspen Linden (HAL) Neighborhood

# 93% of Voting Residents Opposed to W. Maple Proposal 71 signatures (47 families) reflect 70% of households

Petition to Oppose the West Maple Road Conversion to 3 Lanes

Signature	Street Address
MANA...	380 ASPEN
...	350 ASPEN
...	312 ASPEN
...	313 ASPEN
...	242 ASPEN
...	242 ASPEN
...	116 ASPEN
...	110 ASPEN
...	430 ASPEN
...	570 ASPEN
...	770 ASPEN
...	353 ASPEN
...	353 ASPEN
...	150 ASPEN RD
...	550 ASPEN RD

Petition to Support the West Maple Road Conversion to 3 Lanes

Signature	Street Address
...	250 Linden Rd
...	252 Linden Rd
...	344 Linden
...	# 5103 Linden
...	# 680 Linden

Petition to Oppose the West Maple Road Conversion to 3 Lanes

Signature	Street Address
...	255 Linden Road
...	255 Linden Rd
...	291 Linden Rd
...	355 LINDEN
...	355 LINDEN

Petition to Oppose the West Maple Road Conversion to 3 Lanes

Signature	Street Address
...	416 Hawthorne St
...	500 Hawthorne
...	320 Hawthorne
...	325 Hawthorne
...	472 Hawthorne
...	590 Hawthorne
...	390 Hawthorne
...	512 Hawthorne
...	345 Hawthorne
...	316 Hawthorne St

Petition to Oppose the West Maple Road Conversion to 3 Lanes

Signature	Street Address
...	475 Linden
...	475 Linden
...	411 Linden Rd
...	411 Linden Rd
...	371 Linden Rd
...	371 Linden Rd
...	437 Linden Rd
...	437 Linden Rd
...	507 Linden Rd
...	507 Linden Rd
...	455 Linden Rd
...	571 Linden Rd
...	571 Linden Rd
...	185 Linden Rd
...	185 Linden Rd
...	147 Linden
...	147 Linden
...	235 Linden
...	235 Linden

Petition to Oppose the West Maple Road Conversion to 3 Lanes

Signature	Street Address
...	483 Aspen
...	419 Aspen
...	175 ASPEN



**PADILLA LAW GROUP**  
ATTORNEYS AT LAW

March 3, 2014

151 Martin St.  
Birmingham City Commission  
Birmingham, MI 48009

Re: Opposition to Area Concept Plans  
5.2 West Maple Rd between Cranbrook and Southfield

**RECEIVED BY**

MAR - 5 2014

**CITY CLERK'S OFFICE**  
CITY OF BIRMINGHAM

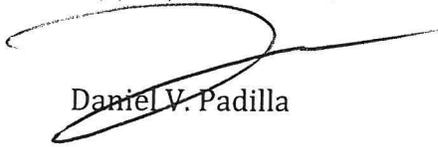
Dear Sirs/Ladies;

My office is listed at the address below which is the middle of this plan. We are opposed.

The plan is ill conceived. Traffic is far too heavy for bike lanes. There are too many driveways and streets requiring left turns that a single left hand turn lane will lead to head on collisions.

Removing the traffic light is a bad idea. In fact I suggest another light at Larchlea because east bound traffic is relentless and people are constantly exceeding the speed limit. It is very difficult and dangerous for west bound traffic to turn left as it is.

Very truly yours,  
PADILLA LAW GROUP

  
Daniel V. Padilla

March 20, 2014



Birmingham City Commission  
151 Martin St.  
Birmingham, Michigan 48009

Dear Commissioners:

I manage one of the businesses in the Maple Chesterfield Plaza. I have been polling my customers about the planned conversion of West Maple from 4 to 3 lanes. They are concerned about the disruption and congestion this project will cause in this area.

Since most of my customers live in the neighborhood that surround the plaza. I am asking on their behalf as well as my own to delete the West Maple proposal prior to approving the overall Multi-Modal Plan.

Sincerely,

Theresa M. Tubek

RICHARD C. ROLLINS  
466 ASPEN ROAD  
BIRMINGHAM, MI 48009-1656

---

[ROLLINSTAX@MSN.COM](mailto:ROLLINSTAX@MSN.COM)

(248)932-3500  
248) 932-0826 FACSIMILE

November 19, 2013

City Commissioners  
City of Birmingham  
151 Martin  
PO Box 3001  
Birmingham, MI 48012-3001

Re: W. Maple

Dear City Commissioners:

As a Birmingham resident on Aspen, the duty of government is do what is best for the long term growth and development of Birmingham. To make it more than just an upscale city or one step up from Royal Oak or Ferndale or Berkley. Birmingham is great but it can be so much better. The City has so many opportunities to rise to the challenge of making Birmingham an enriching cultured and truly beautiful city. To make it more functional and aesthetic.

For example, West Maple and Woodward are nothing more than traffic speed lanes to move traffic at a high volume and at high speeds through the city. Maple is being used as the cross cutter for east to west corridor traffic between Telegraph and Woodward, for the middle of Oakland county traffic. Ending high speed pouring traffic into a two lane downtown Birmingham. Cutting north and south Birmingham residential neighborhoods with a high volume, high speed road that is totally ugly. Roads can be so much more. Maple can be so much more. Woodward can be so much more. Making Maple a one lane each with a Blvd with islands with trees in the middle and at the same time slowing traffic down in our residential Birmingham and reducing the noise of Maple. We see what has been done in downtown Birmingham along northern Woodward north of Maple.

Government must do what is best for the long term growth and beauty of a city. Many countries have had Popes and Napoleon and Kings and Emperors to make cities full of life and beauty and boulevards and parks. City government is elected to make the difficult decisions even if many of it's residence want the same as the past.

On another note, outdoor art installations can make a city alive and enriching. Bringing people from within Birmingham, to residences from other cities and States to come to see art throughout a remarkable downtown city Birmingham and improve downtown both for business and beauty. Increased business for downtown retail doesn't

come from putting up tent signs in the middle of the sidewalk. It makes retail look desperate for business.

Look at what Grand Rapids is doing with art installations. I have always been amazed that Cranbrook, one of the great art facilities in the world is only two miles from Birmingham and there has been no spinoff from Cranbrook to Birmingham in bringing large art installations to the parks and streets. The art presently in Birmingham is one step up from high school. Where is Richard Serra works in our affluent city. I was on the art board of Birmingham for one day and I quit after I realized they spent a whole meeting discussing the cost of a small art plaque and the art of one of the art board members was actually displayed in our city. Also when at the same time they, the city, decided to take City general funds of over \$800,000 to built better golf club houses. Please, give me a break.

Let's take the big steps necessary to improve our City. Let's have the courage to take the big steps to improve our City. Let us lead and become so much more. Let Birmingham grow to be so much more with Maple as a Blvd with slower and less traffic and more art in our city.

Very truly yours,

A handwritten signature in black ink, appearing to read 'R. C. Rollins', written in a cursive style.

RICHARD C. ROLLINS

RCR/dsf

**Golfview Neighborhood  
Birmingham, MI 48009**

RECEIVED BY

JUN 13 2014

CITY CLERK'S OFFICE  
CITY OF BIRMINGHAM

June 10, 2014

Birmingham City Commission  
151 Martin Street  
Birmingham, MI 48012

Dear Commissioners:

During the past weekend, the residents of Golfview Boulevard were given the opportunity to sign either one of two petitions regarding the proposal to convert West Maple Road from 4 to 3 lanes when the road is resurfaced.

Out of 16 houses on the street, 14 residents representing 12 households, signed the opposed petition, 2 families wanted to think about it and 2 families were not at home. Therefore, 100% of the households that opted to sign a petition chose to sign the petition to oppose the conversion as shown on the attachment.

The following comments represent some of the reasons given when the residents voted:

- \* A 3-lane Maple Road would make any turns from side roads very difficult, as traffic streams would be heavier and have fewer interruptions.
- \* Removing traffic lights and narrowing the road will make driving less safe, as the lack of traffic breaks currently caused by the stoplights to be removed would encourage cars entering from cross streets to take more chances squeezing into small traffic gaps.
- \* A lane conversion would make West Maple like Adams, which is very congested.
- \* Left turn lanes work best where cross streets are in a direct line rather than like Glenhurst, where the north and south portions of the road are not aligned, and where a center turn lane can create nose-to-nose stalemates for cars in opposing directions.
- \* There are better and safer places for bike lanes than West Maple Road. Note: This was a comment expressed by 2 residents who enjoy biking in Birmingham now.
- \* The conversion plan would exacerbate the significant congestion which occurs at morning and afternoon rush hours, and would likely force more traffic over to Lincoln Road, which would be an unwelcome development for many residents.

Based on the petition signatures on the attachment and the reasons cited above, the Golfview Neighborhood is asking the City Commissioners to remove the West Maple Road 4/3 lane conversion proposal from the Multimodal Plan and to read this letter at the next Commission meeting where the Multimodal Plan is discussed.

Sincerely,



Russ Ives  
Petition Circulator

Attachment

Petition to Oppose the West Maple Road Conversion to 3 Lanes

Signature	Street Address
<i>[Signature]</i>	552 Golfview
<i>[Signature]</i>	576 Golf View Blvd
<i>[Signature]</i>	531 Golf View Blvd.
<i>[Signature]</i>	539 Golf View Blvd.
<i>[Signature]</i>	510 Golfview Blvd.
<i>[Signature]</i>	390 Golfview Blvd.
<i>[Signature]</i>	311 GOLVIEW BLVD.
<i>[Signature]</i>	385 Golfview Blvd.
<i>[Signature]</i>	463 Golfview Blvd.
<i>[Signature]</i>	411 Golfview
<i>[Signature]</i>	458 Golfview
<i>[Signature]</i>	585 Golfview
<i>[Signature]</i>	559 Golfview Blvd
<i>[Signature]</i>	552 Golfview Blvd.

**Golfview Neighborhood  
Birmingham, MI 48009**

**100% of Voting Residents Opposed  
To Maple Road 4/3 Lane Conversion.**

**14 Signatures (12 Families) Reflect  
75% of Households in Neighborhood.**

---

---

---

---

---

**Golfview Neighborhood  
Birmingham, MI 48009**

RECEIVED BY

JUN 13 2014

CITY CLERK'S OFFICE  
CITY OF BIRMINGHAM

June 10, 2014

Birmingham City Commission  
151 Martin Street  
Birmingham, MI 48012

Dear Commissioners:

During the past weekend, the residents of Golfview Boulevard were given the opportunity to sign either one of two petitions regarding the proposal to convert West Maple Road from 4 to 3 lanes when the road is resurfaced.

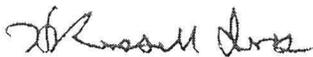
Out of 16 houses on the street, 14 residents representing 12 households, signed the opposed petition, 2 families wanted to think about it and 2 families were not at home. Therefore, 100% of the households that opted to sign a petition chose to sign the petition to oppose the conversion as shown on the attachment.

The following comments represent some of the reasons given when the residents voted:

- \* A 3-lane Maple Road would make any turns from side roads very difficult, as traffic streams would be heavier and have fewer interruptions.
- \* Removing traffic lights and narrowing the road will make driving less safe, as the lack of traffic breaks currently caused by the stoplights to be removed would encourage cars entering from cross streets to take more chances squeezing into small traffic gaps.
- \* A lane conversion would make West Maple like Adams, which is very congested.
- \* Left turn lanes work best where cross streets are in a direct line rather than like Glenhurst, where the north and south portions of the road are not aligned, and where a center turn lane can create nose-to-nose stalemates for cars in opposing directions.
- \* There are better and safer places for bike lanes than West Maple Road. Note: This was a comment expressed by 2 residents who enjoy biking in Birmingham now.
- \* The conversion plan would exacerbate the significant congestion which occurs at morning and afternoon rush hours, and would likely force more traffic over to Lincoln Road, which would be an unwelcome development for many residents.

Based on the petition signatures on the attachment and the reasons cited above, the Golfview Neighborhood is asking the City Commissioners to remove the West Maple Road 4/3 lane conversion proposal from the Multimodal Plan and to read this letter at the next Commission meeting where the Multimodal Plan is discussed.

Sincerely,



Russ Ives  
Petition Circulator

Attachment

Petition to Oppose the West Maple Road Conversion to 3 Lanes

Signature	Street Address
<i>[Signature]</i>	552 Golfview
<i>[Signature]</i>	576 Golf View Blvd
<i>[Signature]</i>	531 Golf View Blvd.
<i>[Signature]</i>	539 Golf View Blvd.
<i>[Signature]</i>	510 Golfview Blvd.
<i>[Signature]</i>	390 Golfview Blvd.
<i>[Signature]</i>	311 GOLVIEW BLVD.
<i>[Signature]</i>	385 Golfview Blvd.
<i>[Signature]</i>	463 Golfview Blvd.
<i>[Signature]</i>	411 Golfview
<i>[Signature]</i>	458 Golfview
<i>[Signature]</i>	585 Golfview
<i>[Signature]</i>	559 Golfview Blvd
<i>[Signature]</i>	552 Golfview Blvd.

**Golfview Neighborhood  
Birmingham, MI 48009**

**100% of Voting Residents Opposed  
To Maple Road 4/3 Lane Conversion.**

**14 Signatures (12 Families) Reflect  
75% of Households in Neighborhood.**

---

---

---

---

---

Harry G. Kokkinakis



April 30, 2014

Multi-Modal Transportation Board  
City of Birmingham  
151 Martin Street  
Birmingham, MI 48009

Re: Midvale Street and Golf View Boulevard Parking

Dear Board Members,

On July 6, 2012, I wrote a letter to the Traffic & Safety Board regarding on street parking challenges near my home in the Birmingham Senior Center/BASCC area (copy enclosed). In the fall of 2012, I attended a Traffic & Safety Board meeting to review the parking impact caused by Seaholm High School and Birmingham Senior Center/BASCC. In the meeting I was told that this matter would be studied and that I would be contacted to attend a follow-up meeting. Despite several calls and visits to City Hall, I never received a response and the parking problem continued. In fact, on at least one occasion, the City of Birmingham placed cones along the street frontage of BASCC in order to prevent high school parking and to allow for senior overflow parking onto Midvale.

The parking problem was exacerbated this week by the installation of new parking restriction signs on Argyle Street. In fact, I also noticed temporary no parking signs immediately in front of my home. Please refer to my July 6, 2012 letter where I specifically refer to the continued shifting of the parking burden to the east with no resolution to the problem. While I was patiently waiting for a resolution to the parking issue near my home, the City of Birmingham allowed the shifting of the problem to continue. Additionally, I am now permanently unable to park my car in front of my home. Maybe the temporary no parking signs should allow residents of Golf View to park their cars on Golf View.

In 2012 I was hoping to find a neighborhood solution to the parking burden caused by Seaholm High School, rather than a shifting of the problem. At this point, I need an immediate solution to allow me to minimally park my car in front of my home at night or during hours when school is not in session.

Sincerely,

A handwritten signature in blue ink that reads "H. G. Kokkinakis".

Harry G. Kokkinakis

Cc: Mark Clemence, Deputy Police Chief  
Paul O'Meara, City Engineer

**Harry G. Kokkinakis**  
**598 Golf View Boulevard**  
**Birmingham, Michigan 48009**

JENNIFER 248.530.1863  
SEPT. 25<sup>TH</sup>

July 6, 2012

Traffic & Safety Board  
City of Birmingham  
151 Martin Street  
Birmingham, MI 48009

**Re: Midvale Street Parking**

Dear Board Members,

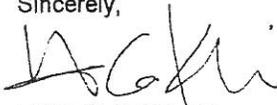
I live at the corner of Golf View Boulevard and Midvale Street. When we purchased our home twenty-five years ago, we understood that there would be parking challenges since our home is located directly across Midvale Street from the former Midvale Elementary School and down the street from Seaholm High School. However, since we moved into the neighborhood, Midvale Elementary School was converted to the Birmingham Senior Center/BASCC. Additionally, our neighbors to the west have appeared before the Traffic & Safety Board to eliminate high school student parking on the west end of Midvale Street and individual north-south cross streets. While the BASCC overflow parking onto the neighborhood streets was manageable, the shifting of the high school parking problem further east on Midvale Street has caused an additional burden to the homes in the immediate proximity to BASCC. The continued shifting of high school student parking to the east has not resolved the problem and only places the burden on different neighbors.

My home now has the overflow parking burden of BASCC and Seaholm High School. I have two suggestions that may resolve this parking issue.

1. Approximately 15 years ago parking was shifted from the north side of Midvale Street to the south side of Midvale Street in a few areas. This shifting not only reduced available parking on Midvale Street, but also caused confusion. This confusion has caused people to park on both sides of the street, within the same block, which makes the street very hard to navigate. I recall an incident where a Birmingham Fire Department truck could not drive down Midvale Street on an emergency run because of parking on both sides of the street. I propose that all parking on Midvale Street should be on the south side. This will add a significant number of spaces since the south side of the street is not interrupted by cross streets and driveways. It will also eliminate the confusion.
2. I also propose to eliminate all parking restrictions on Midvale Street (south side) which will allow students to park on the street. Current north-south cross streets that have limited and or permit parking can remain. The north-south cross streets should provide residents with more than enough parking in front of their homes with the exception of the one home that fronts Midvale Street near Cranbrook.

I believe these two suggestions should help resolve the parking issues in our neighborhood. I am hopeful that you will investigate these suggestions and develop a solution that resolves the parking problem, rather than shift it from neighbor to neighbor. The solution should also keep our neighborhood safe by allowing Birmingham Emergency vehicles easy access along Midvale Street.

Sincerely,



Harry G. Kokkinakis

Cc: Donald A. Studt, Chief of Police ✓

29. JAN. 13      11  
12 CARS PARKED WEST OF DRIVE, PLUTON W/40,  
ONE JUST PULSED OUT