DOWNTOWN DETROIT TRANSPORTATION STUDY

PREPARED FOR
THE CITY OF DETROIT

December 2018

TABLE OF CONTENTS

Main Document Sections

WORKING GROUP

SEMCOG

MDOT Michigan Department of Transportation

CITY OF DETROIT

CONSULTANT TEAM

MKSK

NELSON NYGAARD

FEHR PEERS DC

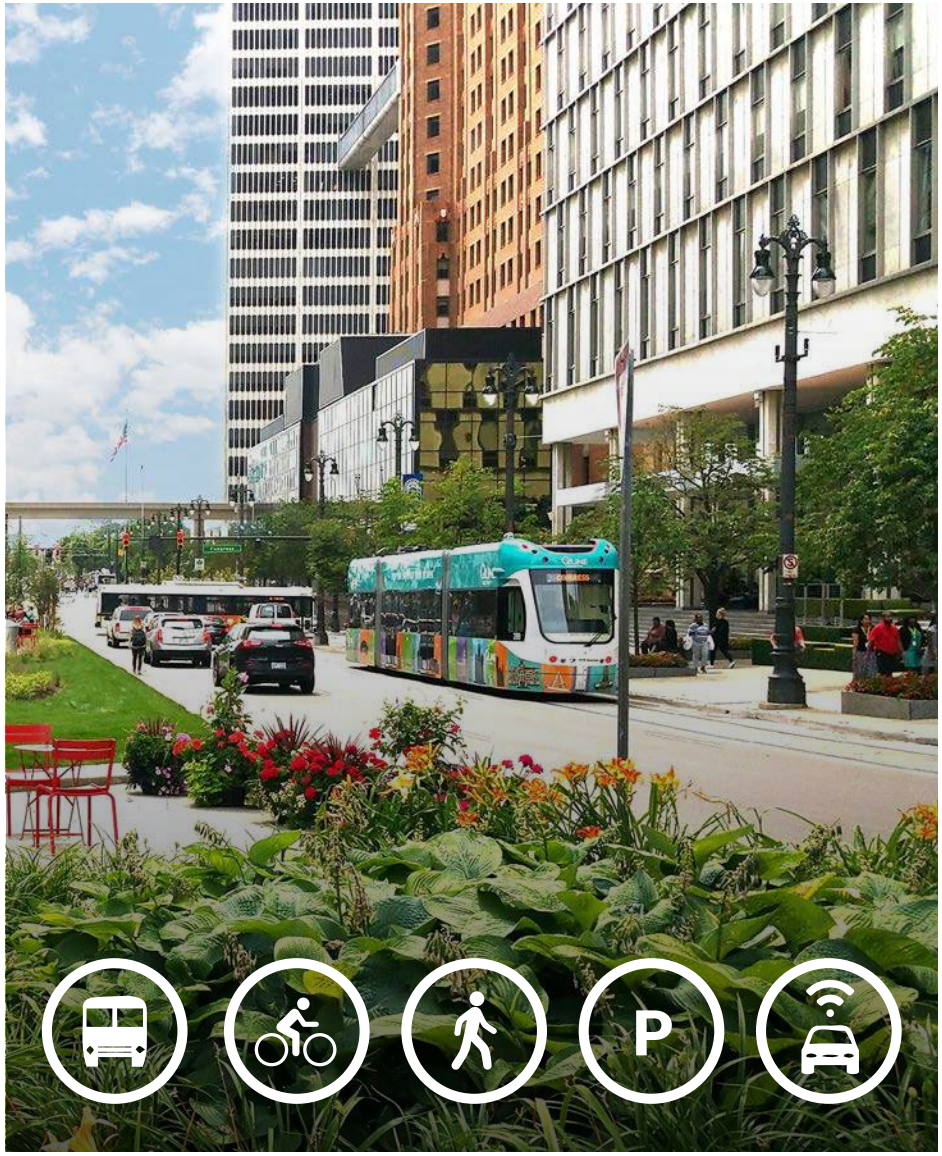
lovio george

A separate, technical appendix was also developed as part of the Downtown Transportation Study that includes more detailed peer city research and best practice information, technical white papers on transit, curbside management, and transportation demand management, as well as some additional data and maps.

DOWNTOWN DETROIT HAS BEEN AT THE HEART OF OUR EVOLVING CITY; RESIDENTS, BUSINESSES, AND VISITORS – BOTH OLD AND NEW– ARE CONTRIBUTING TO THIS VIBRANCY SO EVIDENT AS YOU EAT, SHOP, WATCH SPORTS, WALK, BIKE, TAKE TRANSIT, OR DRIVE IN DOWNTOWN. TO SUPPORT AND CONTINUE TO GROW THIS VIBRANCY, WE MUST ADDRESS HOW PEOPLE GET TO AND MOVE AROUND DOWNTOWN.

The Downtown Detroit Transportation Study was a collaborative effort between the Southeast Michigan Council of Governments (SEMCOG), the City of Detroit, the Michigan Department of Transportation (MDOT), and a team of transportation consultants. The information and recommendations presented in this document are based on evaluation of available data, review of previous and ongoing planning efforts, research on peer city best practices and case studies, observations of downtown, as well as assessments from experts and stakeholders. Stakeholder engagement was a critical component of this study, which involved a series of meetings held with local and state agencies, City departments, and a wide range of downtown stakeholders to discuss the current transportation conditions downtown and potential opportunities for improvement.

Given the rapid changes downtown, with frequent announcements of new development, and emerging mobility options and information technology, this Study is intended to be flexible to adjust to new data and opportunities in the future. It is also designed to integrate with other concurrent and future studies such as the I-375 analysis, corridor plans, city-wide transportation and other plans. The Study includes recommendations to improve walking, traffic, parking, transit, bicycling, and management of the public curbside throughout downtown.



1,627,860 square feet of new development completed or slated to be completed in 2017 and 2018

— Source: Downtown Detroit Partnerhsip

WHAT WE KNOW

- **Downtown Detroit will continue to grow** in the number of residents, jobs, and new developments.
- **Preferences in how people move around are changing.** Walking, biking, car-sharing and public transit are becoming more desirable and are used more frequently.
- **Transportation elements are not silos,** they work as a whole system. Evolving technology can improve the system, but won't suffice as the only solution.
- **There are similar American downtowns (in size, growth, scale, demographics, and more) that we can look to for inspiration** as well as lessons learned, while still creating a system that is uniquely Detroit.
- **A successful downtown requires leadership,** vision, and most of all, people. A successful downtown is a walkable downtown.
- **Creating and implementing this vision requires collaboration** of across many parties.

WITH THIS PREMISE AND KEY FACTS IN MIND, THE DOWNTOWN DETROIT TRANSPORTATION STUDY HAS THE FOLLOWING OBJECTIVES:

Support the continued growth of Downtown Detroit.

Make it convenient and safe for everyone to get in and around Downtown using all modes of transportation.

Make the individual pieces of Downtown transportation work as **a safe and efficient system.**

Incorporate "best practices" from similar American downtowns.

Identify a vision and supporting policies for a Downtown street network that encourages walkability and balances the needs of all.

Encourage a diverse group of voices to participate in the process.

Intent of the Study

Based on the Objectives described on the previous page, this Downtown Transportation Study presents recommendations to help all types of travelers move safely and efficiently. In this Study, a traveler includes anyone who walks, drives, rides transit, rides a bicycle, or uses another way to get around. Recommendations are also provided for parking and the management of the various users competing for the curbside – parking, loading, buses, valet, and rideshare services.

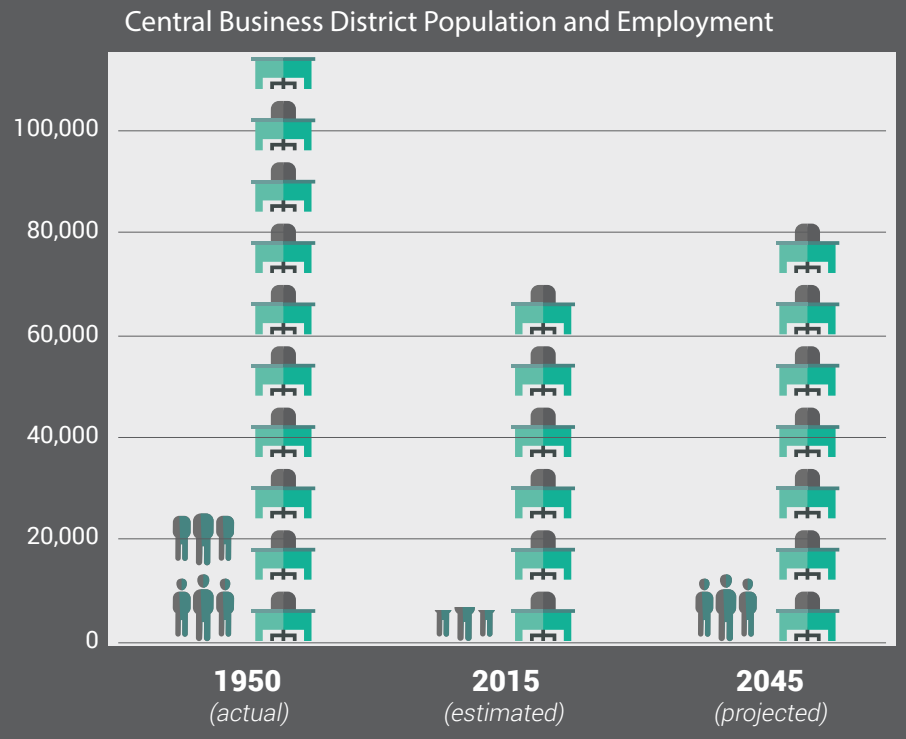
Generally, the City supports the concept of "Complete Streets," whereby streets are designed and maintained for all travelers. Given the limited space available within existing street rights-of-way, not every street can be designed to accommodate each type of traveler equally. Thus, the approach of this Study is to have a "Complete Network," which means there is an effective system for each type of traveler. Based on this concept, the design of each street (including the physical space, lane configurations, and even traffic signals) will give priority to specific users.

Study recommendations are based on best practices from other cities, existing conditions, and current transportation design manuals. Through this planning process, ideas emerged that were determined to be the most effective and practical for downtown Detroit. For many of these recommendations, a phased approach is described. This will allow implementation based on availability of funding and evaluation of the results of certain changes. Flexibility is also embedded in these recommendations so that City and State agencies can respond to new mobility options and other technology innovations.

The following pages describe how the Study is organized around this Complete Network perspective.

DID YOU KNOW?

The expressways and streets downtown were designed to accommodate the population and employment in 1950. Even with all the recent development downtown, the population and employment are still well below what the streets were designed to carry.

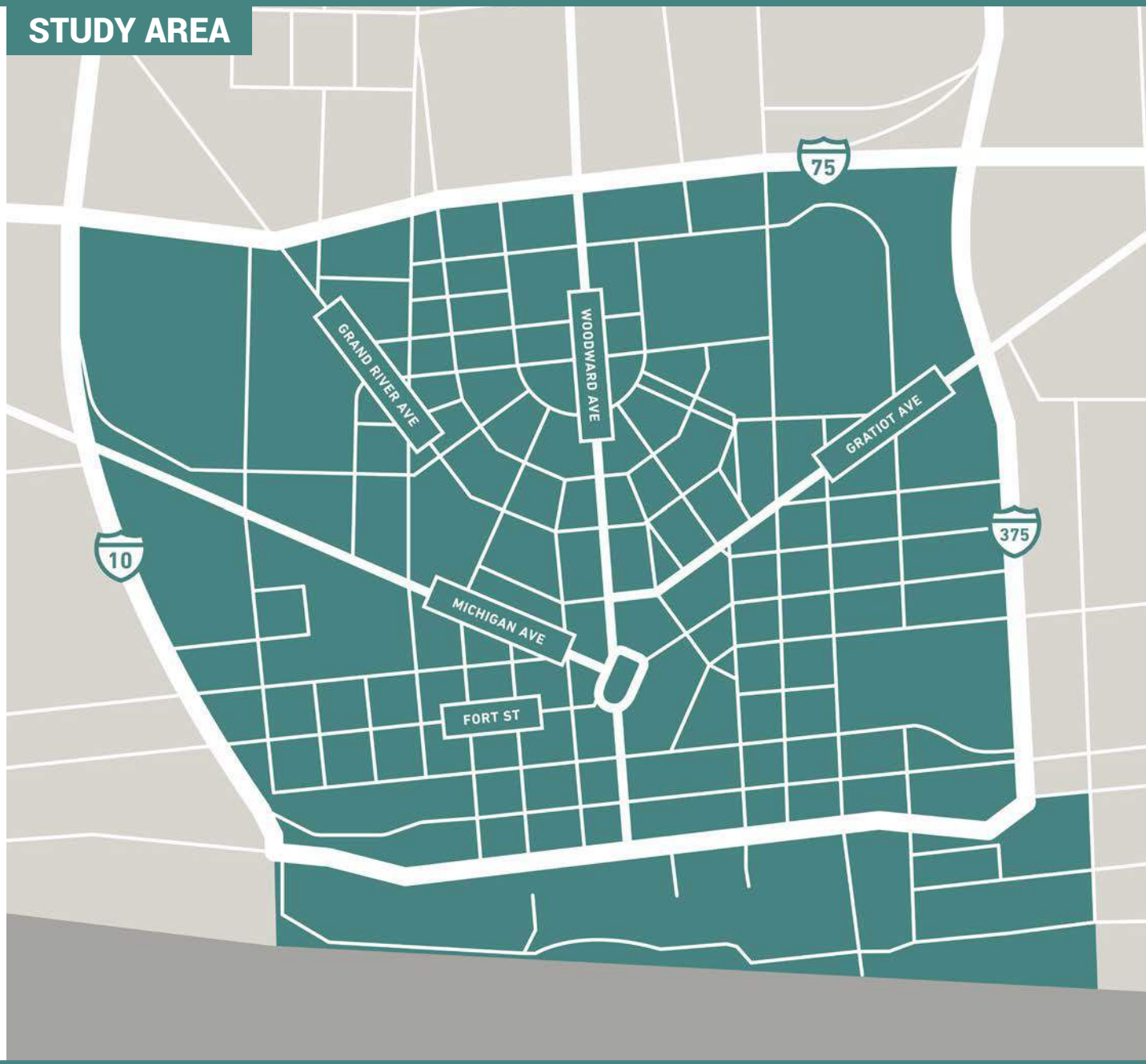


Source: SEMCOG, U.S. Census, Detroit Metropolitan Area Traffic Study

The Approach

The Pedestrian. No matter the mode of transportation used to arrive downtown, everyone becomes a pedestrian for some portion of their trip. Therefore, safe, comfortable, and convenient pedestrian travel is the greatest priority in downtown. Every street should be designed to give priority to the pedestrian. Recommendations in the Study include changes to pedestrian crossings, street design, traffic signals, and streetscape upgrades to enhance the overall pedestrian experience.

Transit. Based on current bus routes and the Woodward Ave Q-line Streetcar, certain streets are already well positioned to prioritize transit. A transit priority street network was identified to promote efficient transit travel and easier wayfinding for transit riders. Transit priority streets are intended to have comfortable bus stops with added features to ease loading and unloading. Changes to street design, traffic signal timing, and continued advancements in technology and information-sharing applications will work together to make transit a more attractive option.

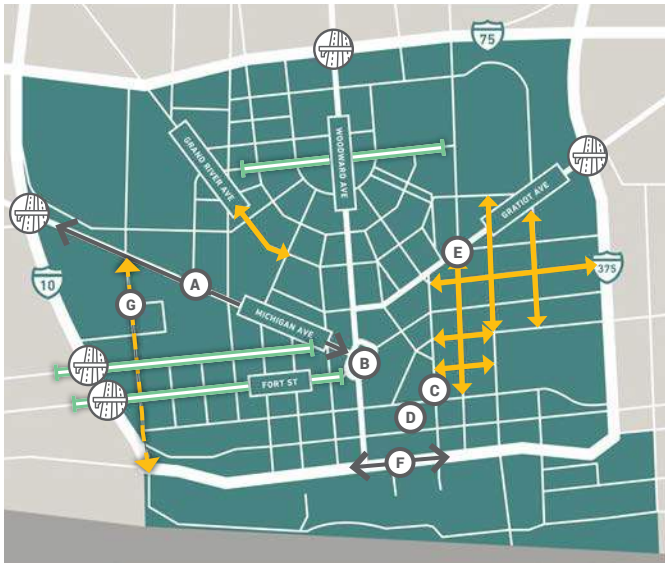


The Approach

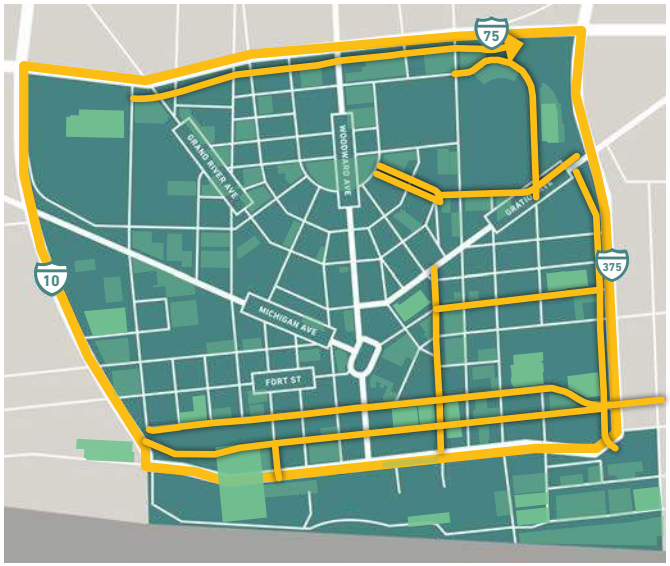
The Bike. Protected bike lanes on Cass Avenue, Grand River Avenue, and Michigan Avenue are major features of the current bike network downtown. These streets are considered primary corridors to the downtown that provide a safe and comfortable environment for bicyclists. This Study recommends completing the bicycle network with bicycle infrastructure on streets that can similarly accommodate the bike, pedestrians, and cars effectively.

Vehicles. The network of motor vehicle-oriented streets is focused on moving commuters and visitors from the perimeter expressways to major parking destinations. A "park once" strategy is employed – this means once someone parks they should walk, bike, use transit or other mobility options to travel throughout downtown. Generally, even the streets that are intended to be more traffic-flow focused will also simultaneously support a safe pedestrian environment. A number of traffic-oriented improvements are suggested, including better traffic signal coordination, consolidation of bus routes onto fewer streets, and more assertive management of curbside activity that can impede traffic flow.

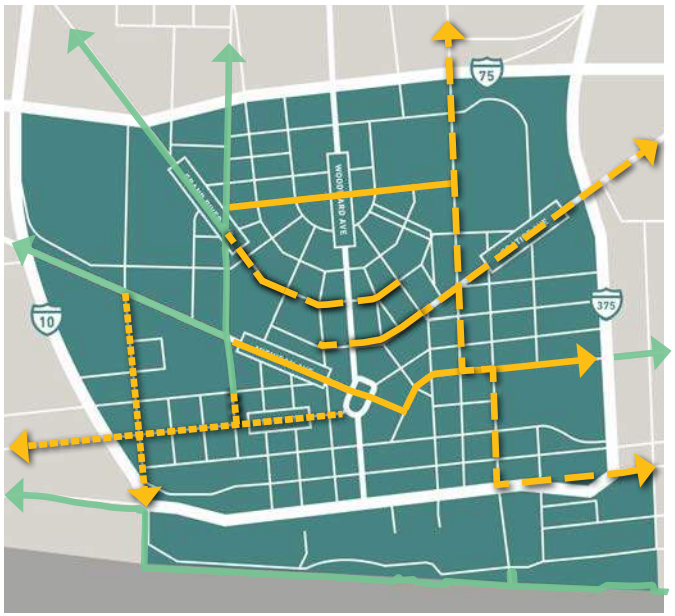
Recommended Projects



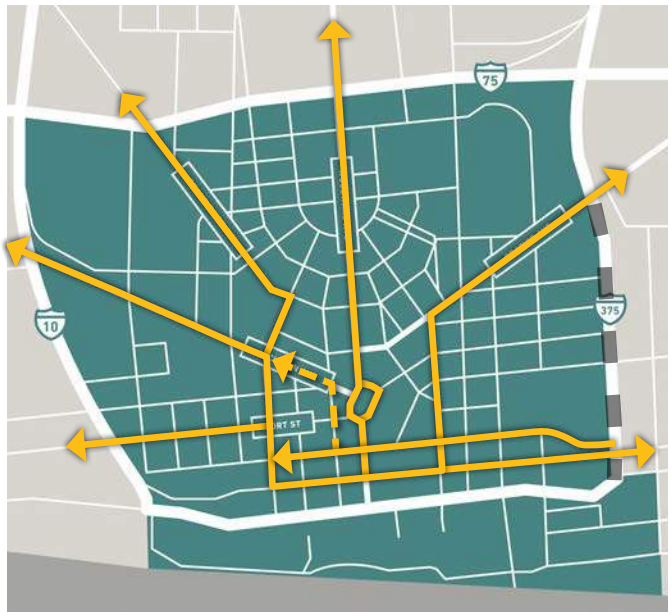
Traffic Improvements Focus Routes



Bicycle Network



Transit Priority Network

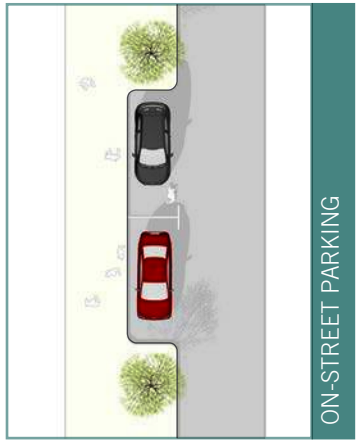


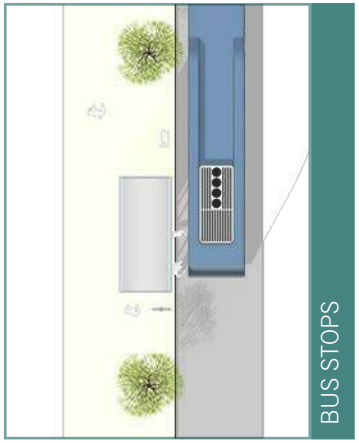
The Approach

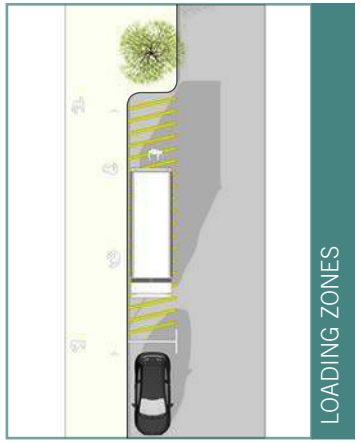
Parking. Downtown's resurgence has created a stress on the parking system. While some addition to the parking supply may be needed, this Study strives to make more efficient use of the existing parking supply. This includes providing information on available parking and costs that can be shared in real time. Recommendations also include making travel by other means more attractive to reduce the overall parking demand. In addition, improved streetscapes, pedestrian upgrades, micro-transit, and short-term mobility options like bike share and scooters in combination can make it more practical and appealing for people to park a little farther from their destination.

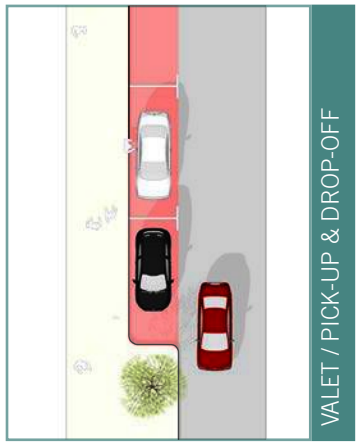
Curbside Management. There is increased competition for space at the curb among on-street parking, bus stops, valets, bicyclists, loading zones, and rideshare services (e.g. Uber, Lyft). An overall management program is suggested to more efficiently manage curbside demands, as described later in this document.

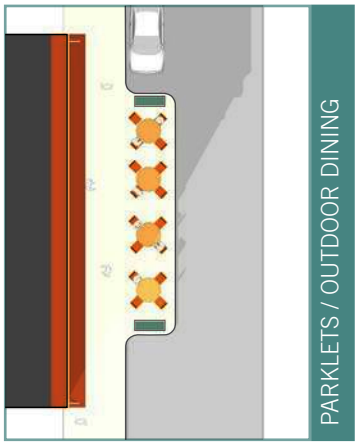
Curbside Demands

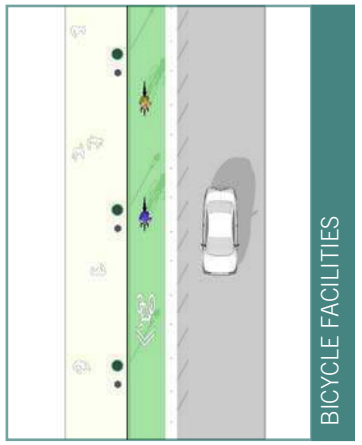












STUDY ORGANIZATION

This page explains the organization of the information and recommendations on the following pages.

Network Maps

The multimodal priority network approach includes the development of "priority networks" for each mode of transportation. This involves identifying priority streets for improvements that will enhance key characteristics related to that mode. The priority streets for one mode do not prohibit use by other modes, but the focus on those streets is improving the experience for the priority mode. Recommended improvements are noted for each priority network, and more detail on those recommendations is provided on related project sheets.

Policies and Programs

These recommendations are not specific to any particular location or street, but apply throughout downtown. Some of these would involve changes to the City's policies or protocols. Others are changes to the City's design practices to emphasize the goals of this Study.

Project Sheets

Specific site improvements and capital projects were identified through the process of developing the multimodal priority networks. These are key projects that will help to enhance various aspects of transportation downtown. Recommendations are based on evaluation of the existing conditions and available data. In some cases, traffic modeling or more detailed analysis is required to confirm the concept will meet study goals. In most cases, the concepts will need to be refined through a more detailed engineering design process. Suggestions for priorities and timing of improvements are also based on the ability to secure funding.

Project Timelines

Each project includes action items to implement within specific timeframes. The timeframes are outlined as follows:

- **Short-term:** 2018-2020
- **Mid-term:** 2021-2024
- **Long-term:** 2025-2028

Project Benefits Key

Improves transit services and/or amenities

Improves safety and/or amenities for bicycling

Improves safety and/or amenities for pedestrians

Improves the overall parking experience

Improves traffic flow and operations

Cost Estimate Key

Lowest Cost
(less than $200,000)

Low Cost
(~200,00 to $500,000)

Medium Cost
(~$500,000 to $1 million)

Highest Cost
(greater than $1 million)

PEDESTRIAN IMPROVEMENTS

Current Situation

Pedestrian activity in downtown Detroit has been increasing in recent years as a result of increased development and activity. This study places a priority on convenient, safe pedestrian travel throughout the downtown. Conditions for pedestrians throughout downtown today vary significantly, and there are a relatively high number of pedestrians hit by vehicles downtown. A number of improvements need to be gradually implemented to make downtown more walkable.

Actions

Key elements of pedestrian environments include:

- Streetscape design
- Buffers from traffic
- Pedestrian-scale lighting
- Shade and shelter from the elements
- Safe, convenient, and clear street crossings

Improvements to walkability downtown will require additional design consideration in regard to the following:

- Pedestrian signals and signal timing for pedestrian crossings (including a pedestrian lead interval, whereby pedestrians begin crossing before vehicles receive a green light)
- Stop control (signals vs. stop signs)
- Crosswalks (markings, design, and location)
- Other intersection design elements

These improvements will be discussed in further detail later in this document.

Example of Good Pedestrian Design - Monroe Avenue

Project Benefits

Cost Estimate $$$$

TRANSIT PRIORITY NETWORK

Current Situation

Transit service in Downtown Detroit is provided by a number of public and private agencies. Buses and shuttles operate on nearly all of the downtown streets. These buses compete with general traffic flow on many of the major corridors, which impacts the buses arriving on time and adds to traffic congestion.

Actions

Route consolidation could help to clarify where transit operates downtown. Removal of transit services from some streets where it may not be as effective can also help relieve traffic congestion on these streets.

- Coordinate with SMART and DDOT to assess route consolidation options for use of key corridors.
- Establish priority transit corridors and implement feasible route consolidation.
- Locate bus staging areas for SMART and DDOT along priority routes.

On the priority transit corridors, specific improvements will help to improve service times and reliability:

- Pilot off-board payment stations.
- Implement transit signal priority (TSP).
- Establish exclusive transit lanes.

This map depicts streets where most bus routes downtown could be consolidated to improve bus service and help relieve congestion.

Project Benefits

Cost Estimate $$$$

PRIMARY TRAFFIC OPERATIONS IMPROVEMENT STREETS

Current Situation

Automobile traffic through downtown today tends to converge on a few key streets, which creates a feeling of general congestion downtown. Most of this traffic is coming from the expressways, or along the major radial corridors, heading to major parking facilities around downtown. Improving operations on the key corridors connecting those facilities can help keep traffic moving more efficiently.

Actions

The following are recommended steps to improve traffic operations on these key corridors:

- Prioritize general traffic flow.
- Re-route and consolidate bus routes to transit priority streets.
- Reduce curbside "friction" on congested streets (see Curbside Management on page 44).
- Coordinate signal timing operations (See Traffic Operations Improvements on page 36).
- Improve communication among City departments, transit agencies and operators, and MDOT.

Project Benefits

Cost Estimate $$$$

BICYCLE NETWORK

Current Situation

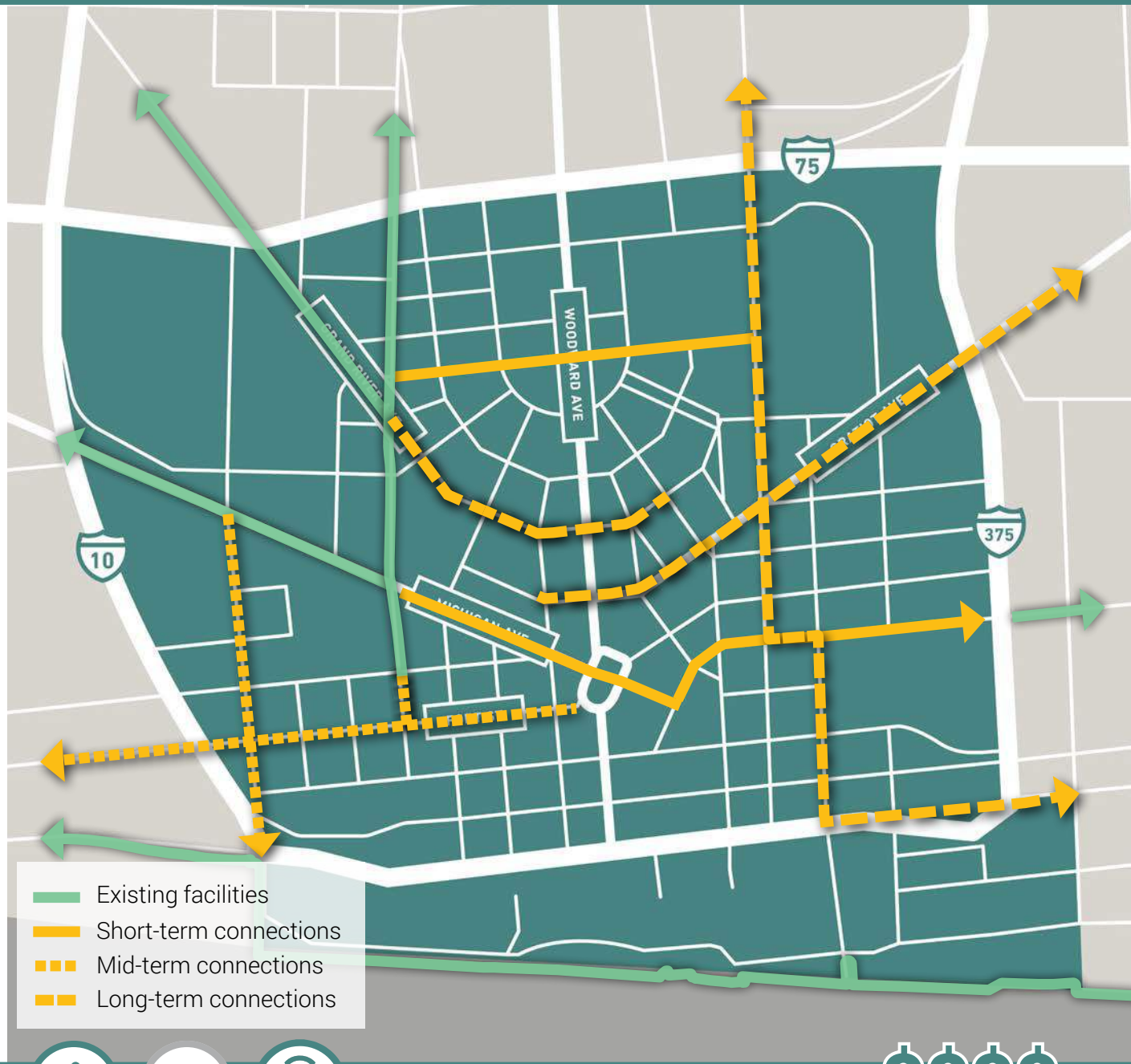
Downtown Detroit already has a few existing, protected bicycle facilities along key corridors with other facilities planned for future connections. While a quality bicycle network is taking shape, there are a few remaining corridors needed to connect the gaps within downtown.

Provisions for additional bike parking will also help make bicycling a more convenient option. The addition of bike facilities needs to be considerate of the other goals and recommendations of this study.

Actions

The following are recommended steps to establish the bicycle network:

- **Short-term:** Extend Michigan Avenue bike lane to Campus Martius; implement Adams Street and E Lafayette Street facilities.
- **Mid-term:** Implement Fort Street and Third Avenue facilities; extend Cass Avenue bike lane to Fort Street.
- **Long-term**: Implement Gratiot Avenue, Grand River Avenue, and Brush/Beaubien Street facilities.



Project Benefits

Cost Estimate $$$$

PROJECT MAP

Project Location Key

- A — Michigan Avenue Improvements
- B — Campus Martius Pedestrian Improvements
- C — Randolph Street & Cadillac Square Intersection Redesign
- D — Congress Street & Larned Street Transit Lanes
- E — Gratiot Avenue & Brush Street Intersection Redesign
- F — Jefferson Avenue Pedestrian Crossing Improvements
- G — 3rd Avenue Street Design
- H — Grand Circus Park Street Improvements
- Expressway Crossing Enhancements
- Streetscape Upgrades
- One-Way to Two-Way Street Conversions
- Greenway Connection

See the project sheets for each of these concepts in more detail.

A MICHIGAN AVENUE IMPROVEMENTS

Michigan Avenue is a key corridor linking downtown to major destinations to the west, and serving as a key connection for commuters who drive, take transit, and bike into downtown.

With recent announcements for planned development and rehabilitation of important sites along Michigan Avenue, the corridor will become an even more significant connection in the future.

A.1 MICHIGAN AVENUE STREET DESIGN

Current Situation

The conditions along Michigan Avenue today are uninviting and do not provide a quality experience for any users (bicyclists, pedestrians, transit users, or motorists). Enhancing the overall streetscape could be completed in combination with or in anticipation of future redevelopment along the corridor.

Michigan Avenue will be a critical corridor for the city, with more than 5,000 new jobs and connections to key employment sites that are and will continue to be significant destinations for the city.

Actions

The following are recommended steps to improve the streetscape and design of Michigan Avenue:

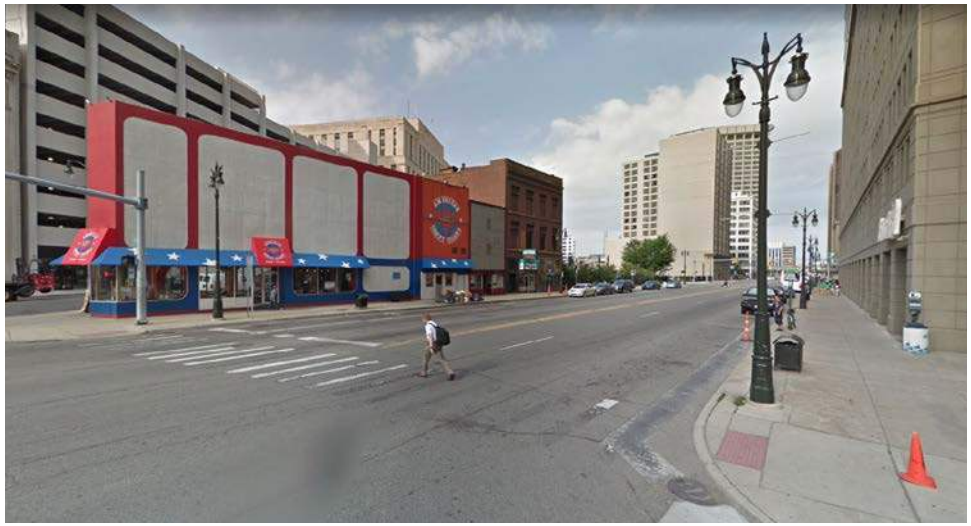
- **Short-term:** Extend Michigan Avenue bike lane to Campus Martius, complete PEL study with MDOT for future streetscape design, implement pilots for bus boarding.
- **Mid-term:** Complete designs and begin implementation of streetscape improvements.
- **Long-term:** Complete streetscape project, including enhancements over the Lodge.

Implementation Partners

Partners responsible for these actions include:

- City of Detroit Department of Public Works (DPW)
- Michigan Department of Transportation (MDOT)

Existing Conditions - Michigan at Griswold



Potential Street Design

Project Benefits

Cost Estimate $$$$

A.2 MICHIGAN/LAFAYETTE/GRISWOLD REDESIGN

Current Situation

The intersection of Michigan Avenue at Griswold Street is bare and unappealing for walking. Pedestrians have little protection from the elements or buffer from vehicular traffic, and the crossings at the intersection are long. The conditions at bus stops also offer little comfort or information for transit users.

Actions

The following are recommended steps to improve the intersection of Michigan Ave and Griswold:

- **Short-term**: Establish the designs, materials, and time period for a demonstration project to temporarily test improvements. Collect data on the "before" condition to test impacts.
- **Mid-term**: Install pedestrian bump-outs at crossings and enhanced bus stops using temporary materials. Record usage data after installation.
- **Long-term**: Complete final design and engineering for full street redesign (this portion of corridor) and implement.

Implementation Partners

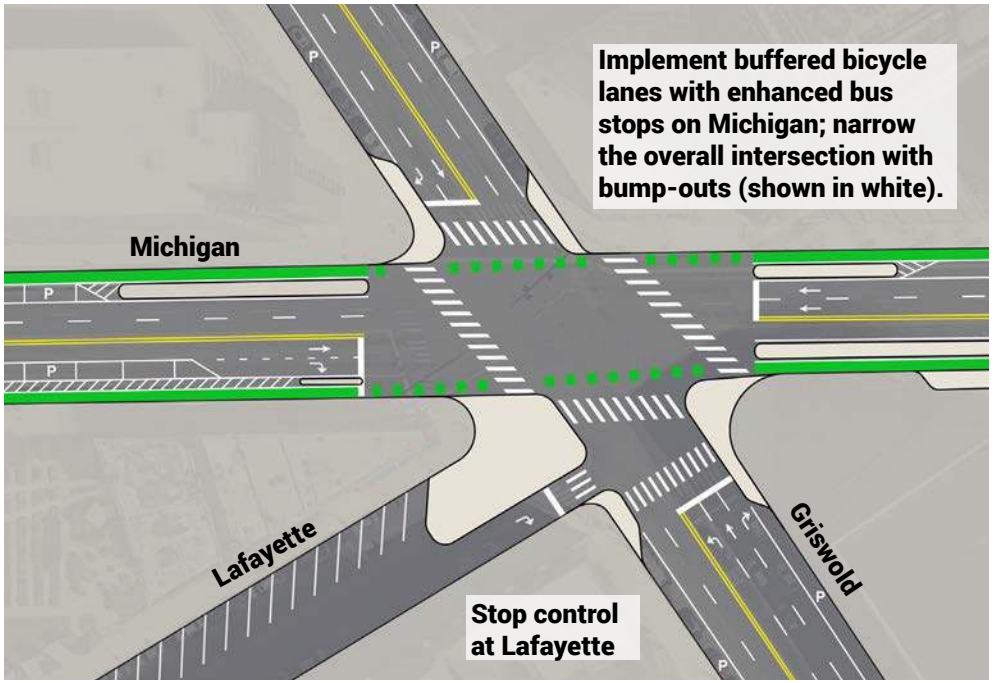
Partners responsible for these actions include:

- City of Detroit Department of Public Works (DPW)

Current Situation

"Before" Photo of Michigan Avenue

Recommendation



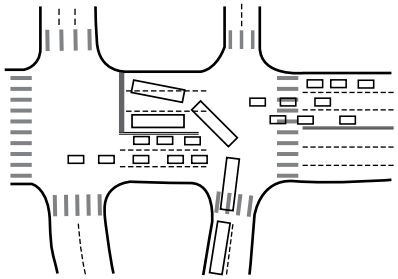
Project Benefits

Cost Estimate $$$$

A.3 WASHINGTON BOULEVARD / MICHIGAN AVENUE REDESIGN

Current Situation

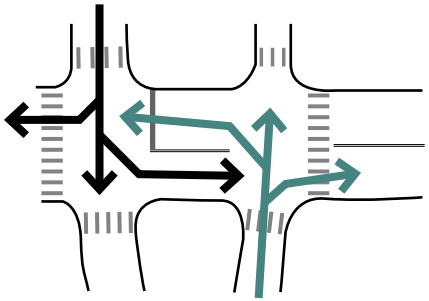
The current design of the intersection causes northbound left-turning buses and other vehicles to back up the intersection and create gridlock.



Actions

The following are recommended steps to improve the intersection:

- **Short-term**: Re-time the traffic signals to ensure that the northbound left-turning vehicles are able to clear the intersection.
- **Mid-term**: Construct a contra-flow northbound bus lane on the southbound leg of Washington Blvd. This would require restriping a lane and upgrading traffic signals as well as bus technology for transit signal priority.



Split-phase operations

Implementation Partners

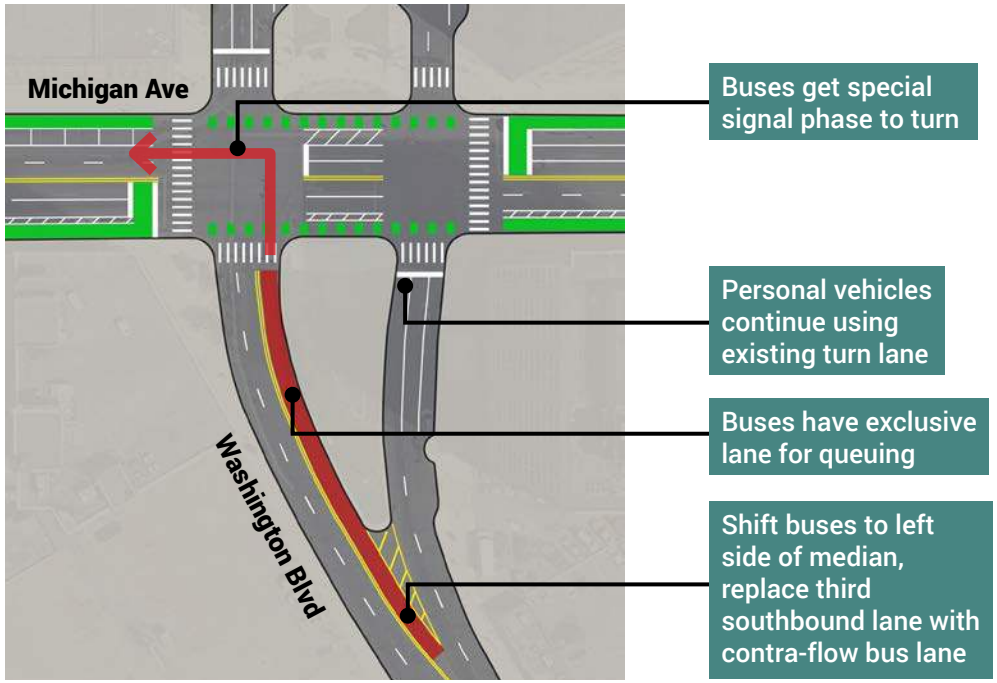
Partners responsible for these actions include:

- Detroit Department of Transportation (DDOT)
- City of Detroit Department of Public Works (DPW)
- Suburban Mobility Authority for Regional Transportation (SMART)

Current Situation

Buses stacking through intersection delays traffic

Recommendation



Project Benefits

Cost Estimate $$$$

B CAMPUS MARTIUS PEDESTRIAN IMPROVEMENTS

Current Situation

Development of Campus Martius helped stimulate revitalization in this part of downtown and has created an influx of pedestrian activity as a result. Since its opening, Campus Martius has become a hub for events, festivals, food trucks, and outdoor recreational activities. The popularity of the space is quickly outgrowing the original design. Pedestrians often cross in locations without designated signals or crossings, following the most direct path to their destinations. While the traffic volumes and speeds are low, there are some design refinements that could be considered.

Actions

The following are recommended steps to improve this intersection:

Short-term:

- Implement marked crosswalks in key locations including Fort Street intersection, Bedrock entrance to northern edge of Campus Martius.
- Test narrowing the intersection with Fort Street to a single turn lane using temporary materials; widen sidewalks along southern edge of Fort Street intersection.

Mid-term:

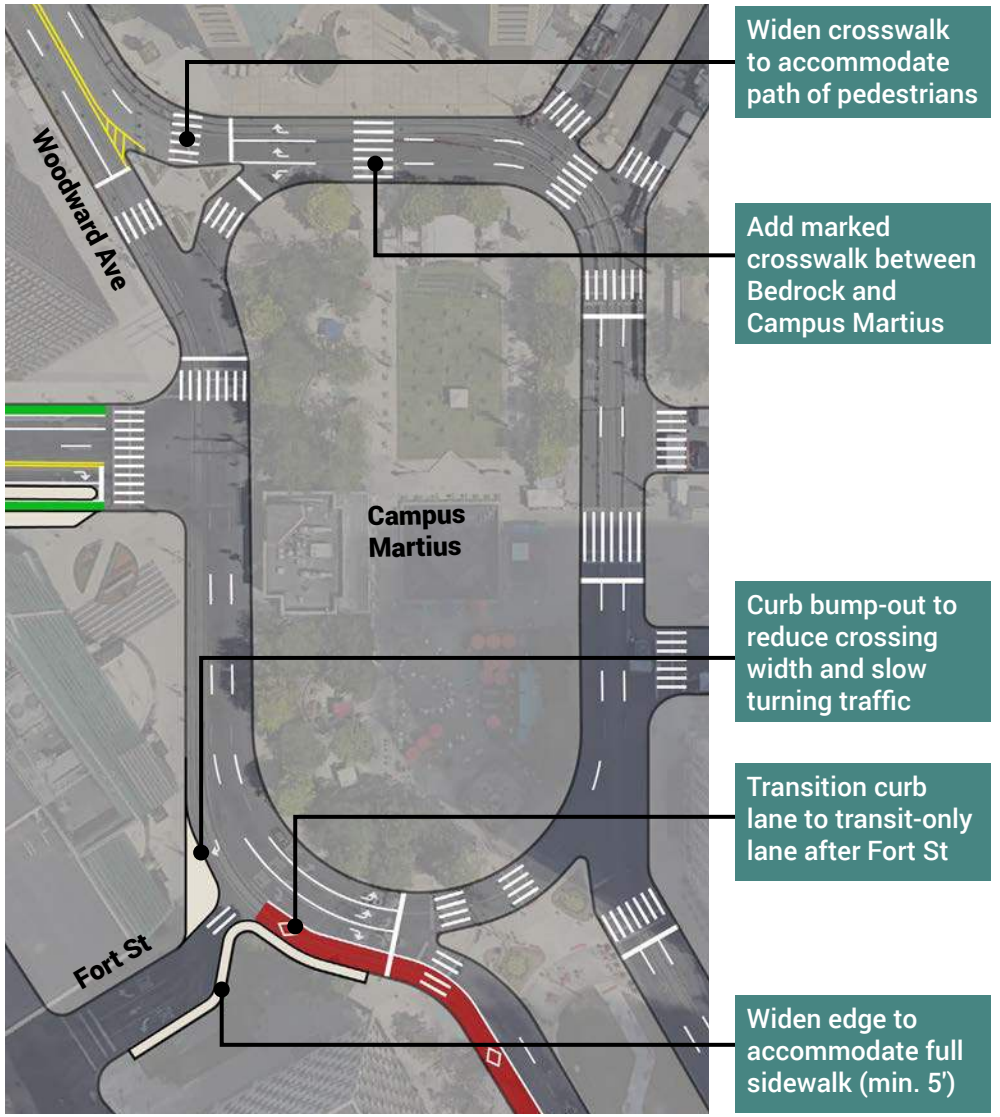
- Depending on results of test, implement full redesign of Fort Street intersection (narrowed crossing, wide sidewalks).

Implementation Partners

Partners responsible for these actions include:

- City of Detroit Department of Public Works (DPW)

Recommendation



Project Benefits

Cost Estimate $$$$

C RANDOLPH STREET & CADILLAC SQUARE REDESIGN

Current Situation

The intersection of Cadillac Square and Randolph Street is a complex, six-point intersection with Congress Street to the south. The size of the intersection is excessive and the intersection itself is confusing for motorists to navigate. It is also difficult for pedestrians to cross. The tight distance between the Cadillac Square and Congress Street intersections along Randolph Street causes conflicts for all types of travelers.

Actions

The following are recommended steps to improve the intersection:

Short-term:

- Coordinate plans for Cadillac Square street closure with planned construction.
- Coordinate with MDOT to test temporary closure of southern leg of Cadillac Square at Randolph Street; provide access to Randolph Street via northern leg of Cadillac Square.
- Evaluate results of test closure.

Mid-term:

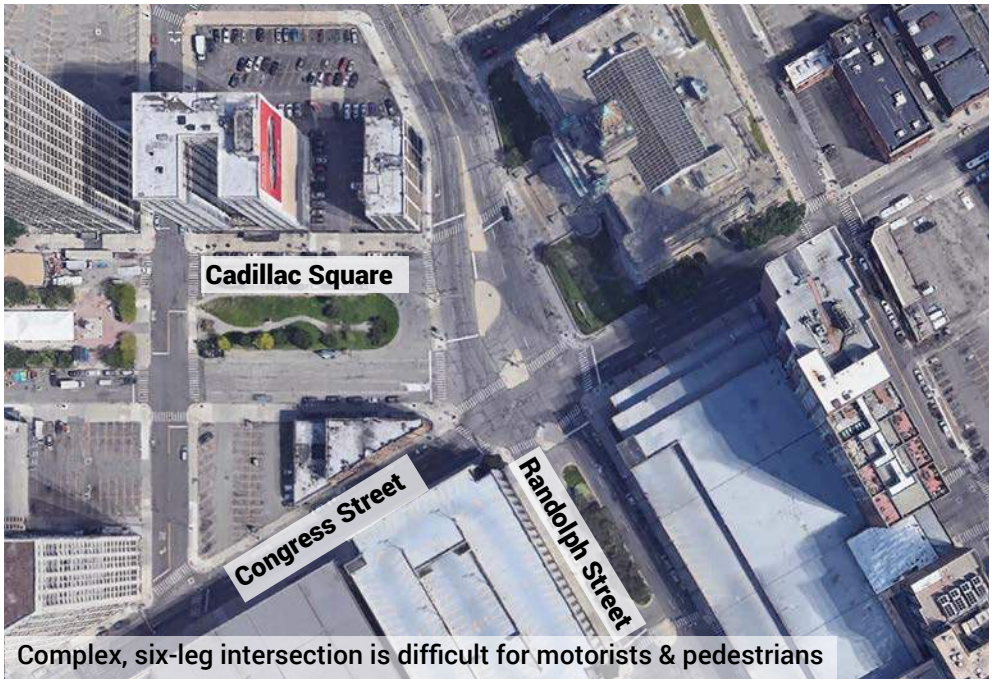
- Design and implement full redesign of intersection.

Implementation Partners

Partners responsible for these actions include:

- Detroit Department of Transportation (DDOT)
- Michigan Department of Transportation (MDOT)
- City of Detroit Department of Public Works (DPW)
- Suburban Mobility Authority for Regional Transportation (SMART)

Current Situation



Complex, six-leg intersection is difficult for motorists & pedestrians

Project Benefits

Cost Estimate $$$$

D CONGRESS STREET & LARNED STREET TRANSIT LANES

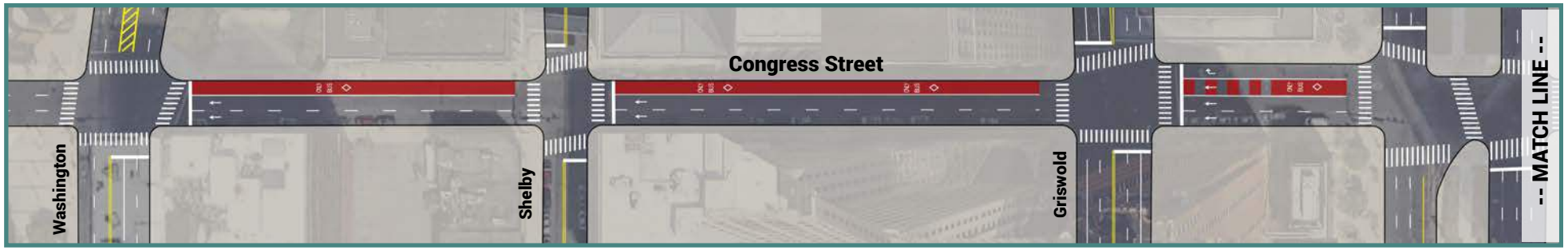
Current Situation

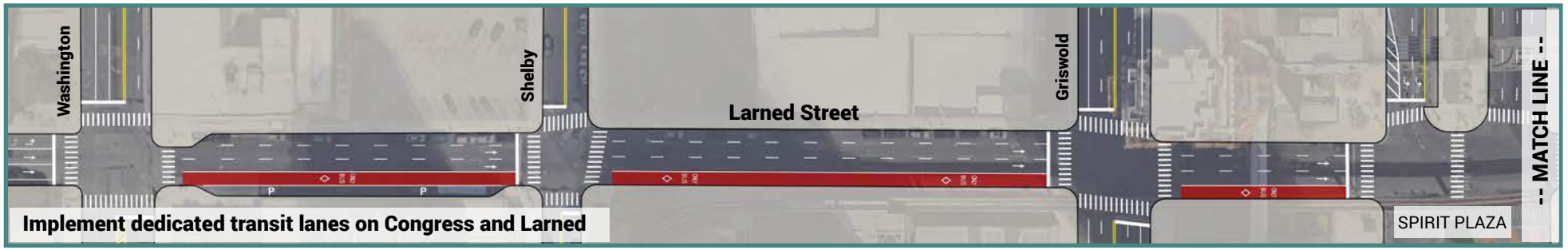
The proposed transit priority network improvement establishes Larned and Congress as key corridors. This would re-route some transit services from other streets to Larned and Congress with dedicated transit lanes to create efficient, reliable, and high-frequency service (as shown in red in the drawing below).The dedicated bus lanes would run between Washington Boulevard and Randolph Street, but would allow personal vehicles to use the lane for right-turn movements at intersections.

Current Situation

Need to establish key corridors for high-frequency transit service

Recommendation





Implement dedicated transit lanes on Congress and Larned

Project Benefits

Cost Estimate $$$$

D CONGRESS STREET & LARNED STREET TRANSIT LANES

Actions

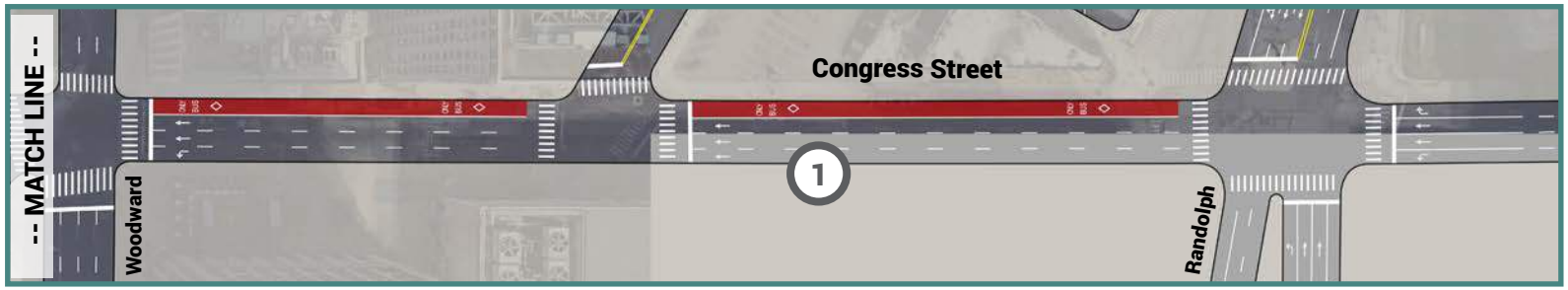
The following are recommended steps to implement the transit lanes on Congress Street and Larned Street:

- **Short-term:** Complete evaluation of impacts of bus-only lanes.
- **Mid-term:** Pilot the bus-only lanes and evaluate.
- **Long-term:** Fully implement bus-only lanes.

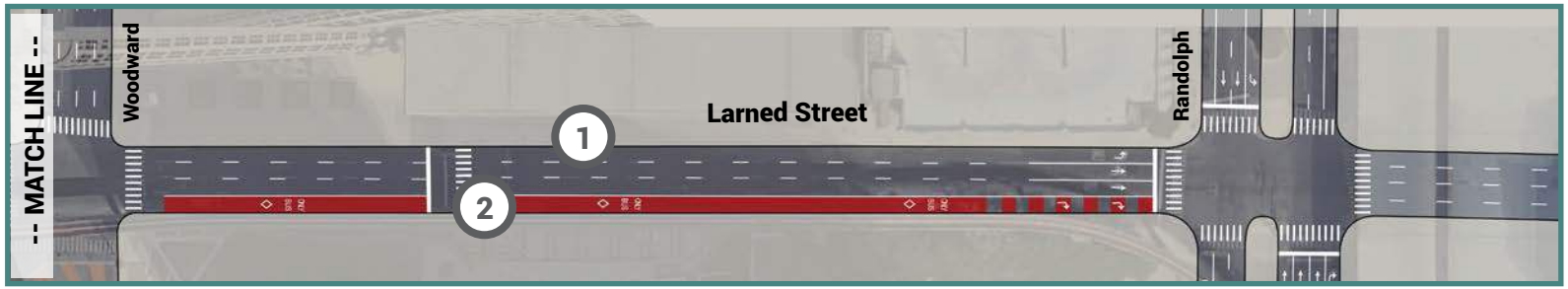
Recommendation

Exclusive Bus/Transit Lanes

Recommendation



1. The travel lane opposite the bus lane on both Congress and Larned Streets can be used for parking during off-peak periods.



2. Implement queue jump with signal phasing to allow buses to make left turns at Randolph - queue jump would be a new phase when all other movements receive an all red.

Project Benefits

Cost Estimate $$$$

E GRATIOT AVENUE & BRUSH STREET REDESIGN

Current Situation

The large, radial avenues bisecting downtown Detroit create a number of complex, five or more-leg intersections that are often difficult for motorists to navigate and dangerous for pedestrians to cross. The intersection of Gratiot Avenue and Brush Street is one of these intersections that has been identified as a high priority safety location for pedestrian crashes. **Brush Street is a key pedestrian connection between Greektown and the stadiums, so this intersection is an important crossing location.**

This intersection has wide turning radii that allow motorists to turn at higher speeds, creating potential conflict for pedestrians. The width of Gratiot Avenue also creates long pedestrian crossings that can be difficult to cross in the time allotted.

Actions

The following are recommended steps to improve the intersection:

- **Short-term**: Coordinate with MDOT to test temporary striping that narrows pedestrian crossings and reduces turning radii; evaluate results of test.
- **Mid-term**: Design and implement full redesign of preferred intersection concept.

Implementation Partners

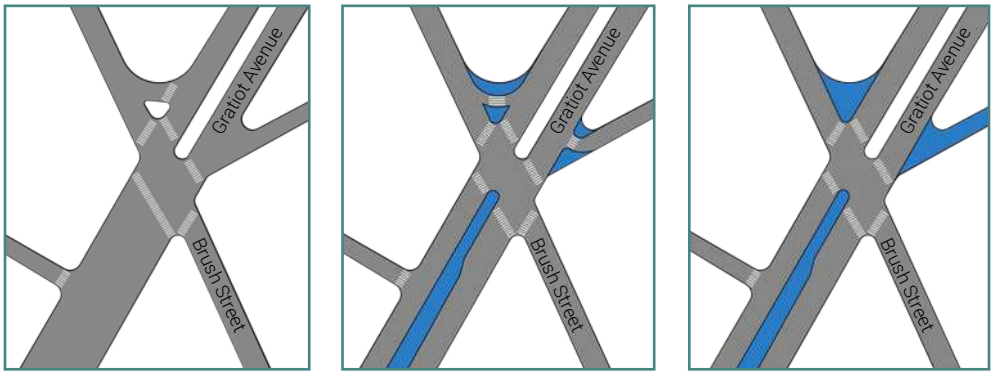
Partners responsible for these actions include:

- Michigan Department of Transportation (MDOT)
- City of Detroit Department of Public Works (DPW)

Current Situation

Complex, five-leg intersection is dangerous for pedestrians to cross

Recommendation



Existing | Alternative A | Alternative B

Project Benefits

Cost Estimate $$$$

F JEFFERSON AVENUE PEDESTRIAN CROSSINGS

Current Situation

Jefferson Avenue is the major east-west arterial linking the Lodge (M-10), I-375 and neighborhoods outside of the downtown with various north-south downtown streets. The high volume of pedestrians that cross Jefferson face a 175-foot wide crossing with 10 lanes, plus a wide median. At several intersections, the pedestrian walk signal coincides with a dual right turn green arrow for southbound traffic. As a result, pedestrians crossing during their designated walk phase are often confronted by a continuous flow of vehicles in the crosswalks. Many motorists do not yield to the pedestrians.

Actions

A separate pedestrian signal phase would improve comfort and safety for pedestrians crossing Jefferson Avenue. However, any change to the signal phasing to favor pedestrians will have a consequence of adding delays to traffic. Strategies for potential improvements to the crossings should include design features such as Leading Pedestrian Intervals (LPI) and high visibility crosswalk markings. Recommendations for these improvements are shown on the map on the following page.

A separate study is suggested for the Jefferson Ave corridor to evaluate other longer-term options.

Implementation Partners

Partners responsible for these actions include:

- City of Detroit Department of Public Works (DPW)
- Michigan Department of Transportation (MDOT)

Current Situation

Current pedestrian crossing conditions on Jefferson Avenue

Recommendations

Leading Pedestrian Intervals let pedestrians cross before cars - Washington, DC

Wide markings establish higher priority for pedestrians - San Francisco, CA

Project Benefits

Cost Estimate $$$$

F JEFFERSON AVENUE PEDESTRIAN CROSSINGS

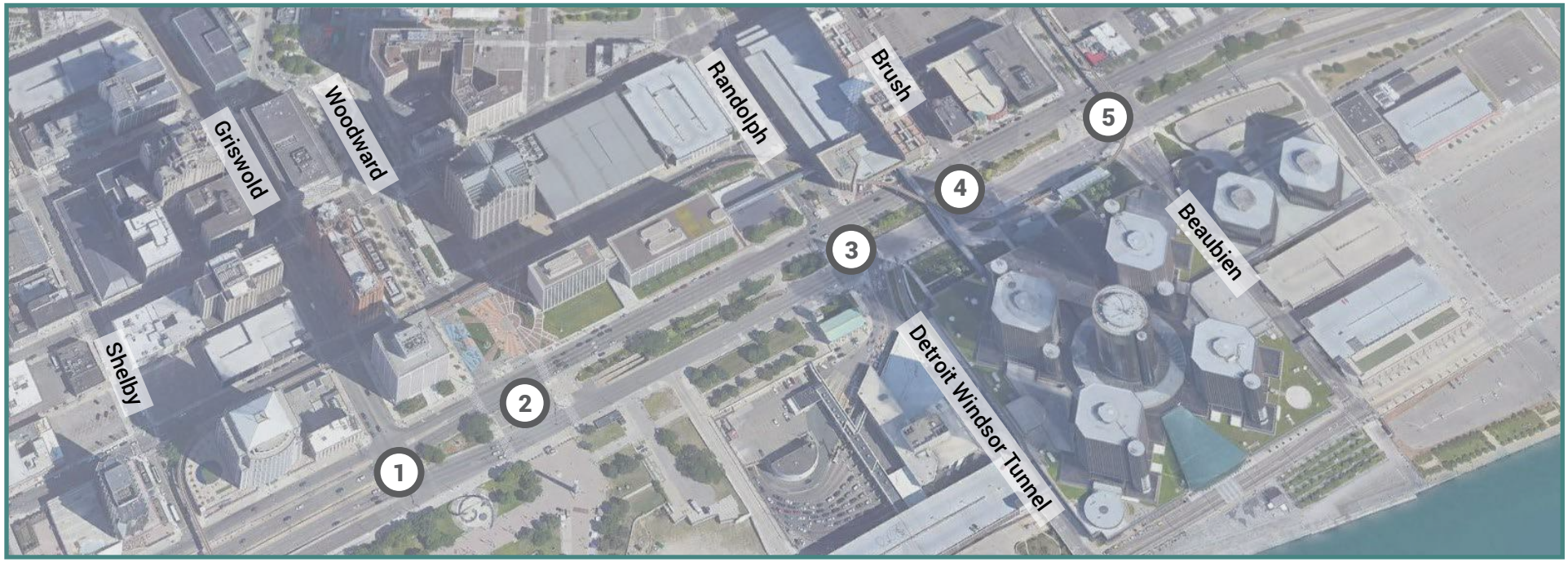
1. Test a fully separated pedestrian signal phase at Jefferson and Griswold to eliminate conflict between turning vehicles and pedestrians. If additional phase causes significant delay, replace full pedestrian phase with LPI.

2. Coordinate with Spirit Plaza study to evaluate pedestrian conditions and signal timing; implement recommendations from the study.

3. Install crosswalk on east leg of intersection. Test a fully separated pedestrian signal phase. If additional phase has undesirable impact, test LPI in combination with prohibiting right turns from lanes other than the curb lane.

4. Modify to have one signal phase so pedestrians are able to cross in a single stage (no waiting in the middle). (Note: a 2-stage crossing may still be needed in the PM peak hours). Remove pedestrian push button; synchronize with other signals.

5. Test a fully separated pedestrian signal phase at Jefferson and Griswold to eliminate conflict between turning vehicles and pedestrians. If additional phase causes significant delay, replace full pedestrian phase with LPI. Add bump-outs in on-street parking lanes to reduce crossing distance.



Project Benefits

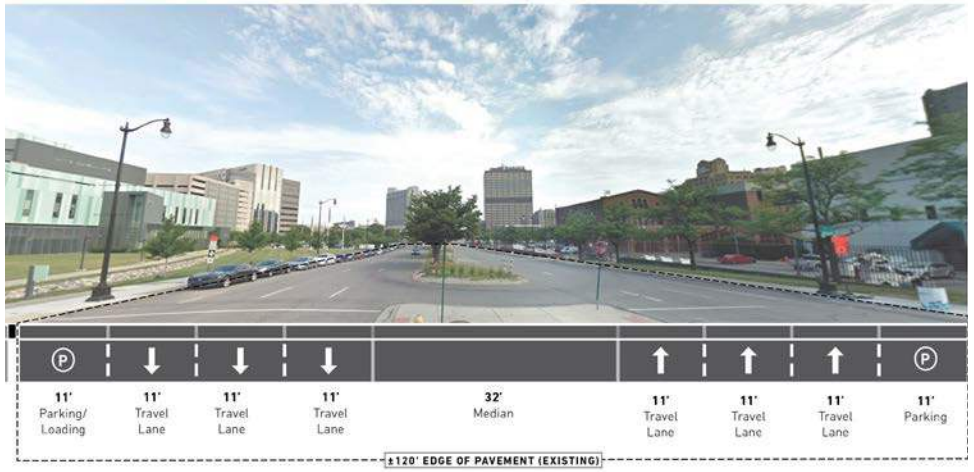
Cost Estimate $$$$

G 3RD AVENUE STREET DESIGN

Current Situation

3rd Avenue between Michigan Avenue and Lafayette Boulevard currently has eight full-width travel lanes, with the outer lanes on either side serving as off-peak parking lanes. Traffic volumes on this roadway are less than 2,000 vehicles per day, which can be accommodated by a single travel lane in each direction. Repurposing a travel lane in each direction can provide space for high quality bicycle facilities (such as a two-way "cycle track", as shown). A bike facility could be extended to the riverfront, though bike lanes or sharrows may be the best option where the right-of-way narrows to the south. Additional on-street angled parking could also be considered. These changes would still provide sufficient capacity for traffic flow.

Current Situation

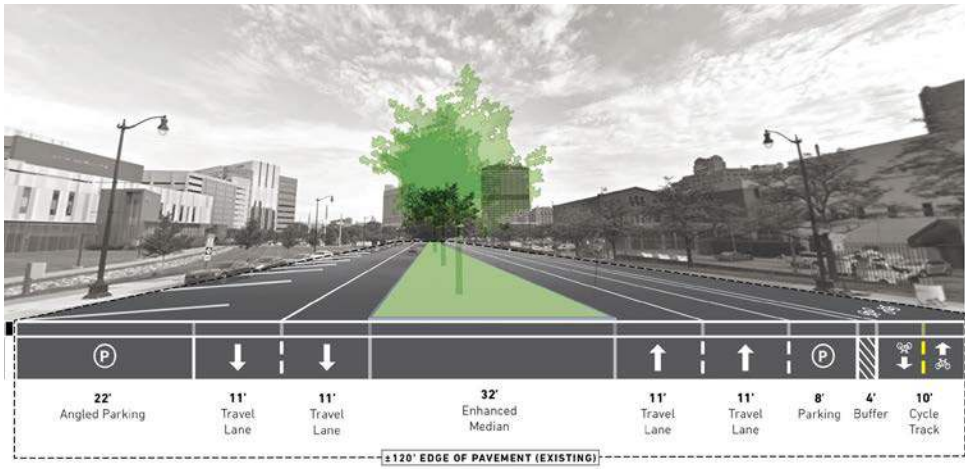


Actions

The following are recommended steps to improve this street:

- **Short-term**: Establish design for pilot project and determine any signage needs; implement pilot project to test design.
- **Mid-term**: Produce final design and engineering for street redesign; potentially enhance the median landscaping.
- **Mid-term**: The two-way cycle track could be extended south of Lafayette Blvd by converting an existing travel lane.

Potential Street Design



Implementation Partners

Partners responsible for these actions include:

- City of Detroit Department of Public Works (DPW)
- City of Detroit Police Department (parking along its frontage) (DPW)
- City of Detroit Municipal Parking Department (MPD)

Project Benefits

Cost Estimate $$$$

H GRAND CIRCUS PARK STREET IMPROVEMENTS

Current Situation

Grand Circus Park continues to see increased activity, with additional development and programming. However, the streets around the Park can make it a challenge to access the park. Additionally the one-way circulation around the park create circulation issues for drivers.

Actions

The following are recommended steps to improve the intersection.

Short-term:

- Convene major stakeholders around Grand Circus Park to identify potential changes to street design.
- Develop temporary plans to pilot any changes.
- Evaluate results of the pilot.

Mid-term:

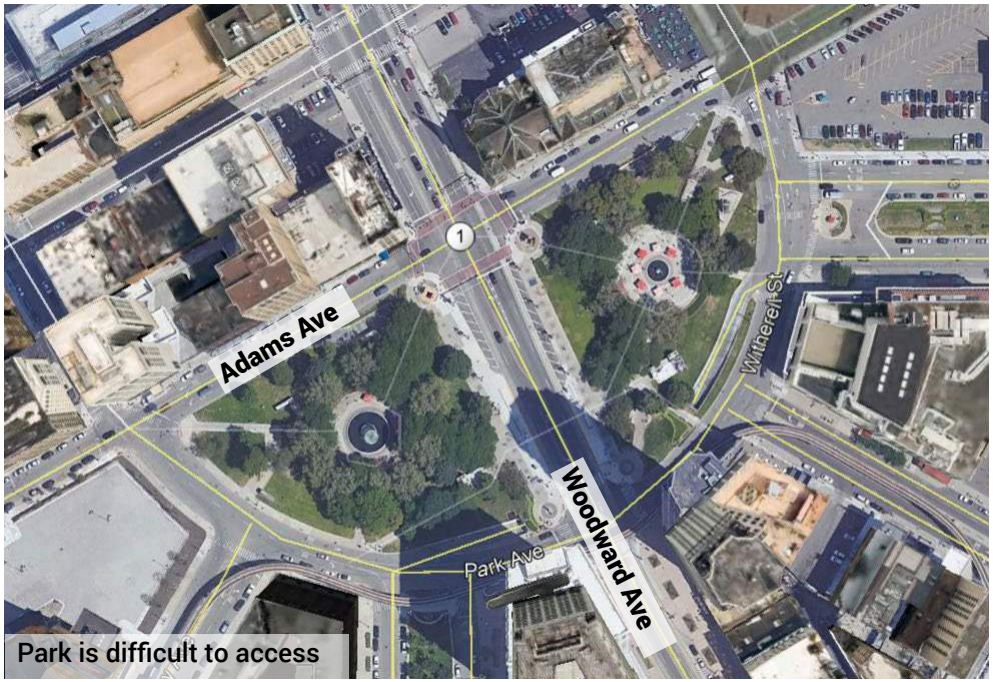
- Design and implement any potential changes

Implementation Partners

Partners responsible for these actions include:

- Detroit Department of Transportation (DDOT)
- Detroit Downtown Partnership (DDP)
- City of Detroit Department of Public Works (DPW)
- Suburban Mobility Authority for Regional Transportation (SMART)

Current Situation



Park is difficult to access

Project Benefits

Cost Estimate $$$$

EXPRESSWAY CROSSING ENHANCEMENTS

Current Situation

Existing crossings over the freeways circulating downtown are significant barriers for people traveling on foot or by bicycle. The following are key freeway crossing locations:

- Michigan Avenue over the Lodge
- Woodward Avenue over I-75
- Gratiot Avenue over I-375
- Fort Street over the Lodge
- Lafayette Boulevard over the Lodge

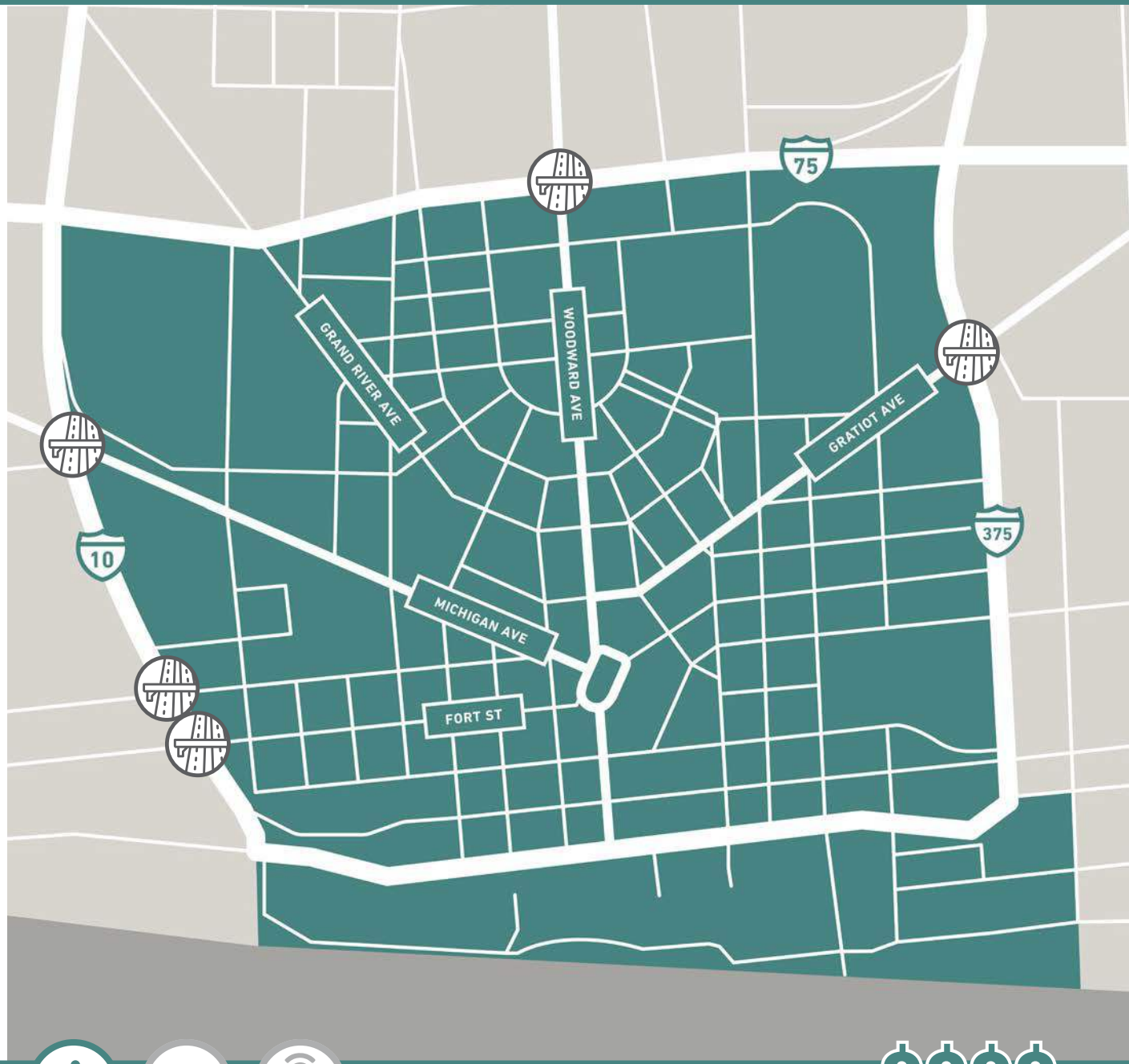
Map Legend

Expressway Crossing Enhancements

Implementation Partners

Partners responsible for these actions include:

- City of Detroit Department of Public Works (DPW)
- Michigan Department of Transportation (MDOT)



Project Benefits

Cost Estimate $$$$

Actions

MDOT has already begun work in collaboration with Corktown Economic Development Corporation and DDP to improve the Michigan Avenue bridge approach. The following are recommended steps to further improve these crossings:

- **Short-term**: Coordinate with MDOT to evaluate potential options for improvements to these crossings; implement temporary/test solutions. This could include:
  - » Streetscape enhancements such as wider sidewalks, pedestrian-scale lighting, and planting/landscape material
  - » Decorative fencing, like used in Grand Rapids, Michigan
- **Mid-term**: Develop design/engineering for full redesign.
- **Long-term:** Begin implementation of improvements. This could include construction of a "cap" over the expressway, like in Columbus, Ohio.

Current Situation

Michigan Avenue over the Lodge

Recommendation


Short-term: Enhanced fencing and sidewalks (Grand Rapids, MI)


Long-term: 5th Street bridge over I-75 (Atlanta, GA)


Long-term: Spring Street bridge over I-71 (Columbus, OH)

Project Benefits

Cost Estimate $$$$

STREETSCAPE UPGRADES

Current Situation

Regardless of how people travel to and throughout downtown, everyone is a pedestrian at some point. The quality of this experience is directly impacted by the conditions of the pedestrian facilities and streetscape.

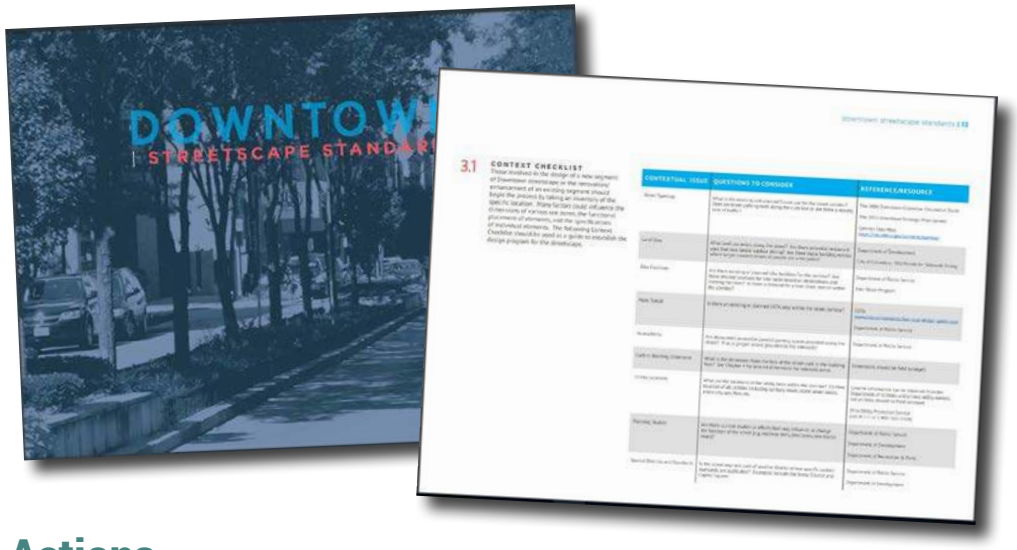
The following are key corridors downtown where the existing streetscape is particularly in need of improvement (listed in order of priority, but may change due to available funding opportunities):

- Michigan Avenue between the Lodge and Campus Martius (see Project Sheet A)
- Lafayette Blvd between the Lodge and Michigan Avenue
- Fort Street between the Lodge and Campus Martius
- Adams Avenue between Grand River Avenue and Brush Street

Implementation Partners

Partners responsible for these actions include:

- City of Detroit Department of Public Works (DPW)
- Michigan Department of Transportation (MDOT)
- Detroit Department of Transportation (DDOT)
- Downtown Detroit Partnership (DDP)
- Private Property Owners
- Private Utilities



Actions

The following are recommended steps to improve downtown streetscape:

Short-term:

- Initiate collection of underground utility data to understand streetscape limitations for downtown streets.
- Coordinate with DDP, MDOT, and other relevant agencies to establish streetscape design standards for downtown streets. Downtown streets fall into different categories of character and function, and the streetscape design for each street should respond to those unique characteristics.
- Finalize designs for Michigan, Lafayette, Fort, and Adams as representative streets based on the streetscape design standards. (Potential design options are illustrated on the following page.)

Mid-term:

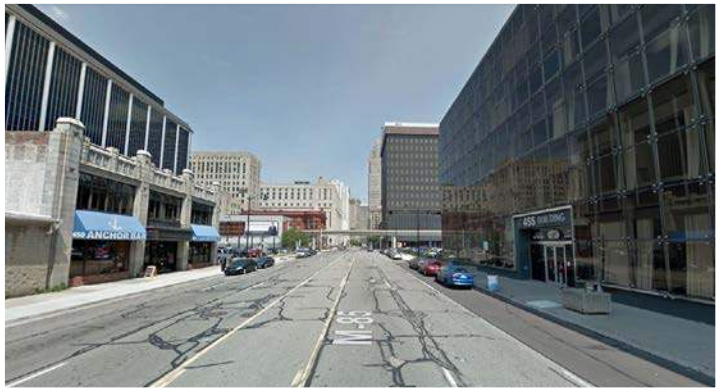
- Install Lafayette Blvd streetscape improvements; Coordinate with MDOT to install streetscape improvements on MDOT streets.

Project Benefits

Cost Estimate $$$$

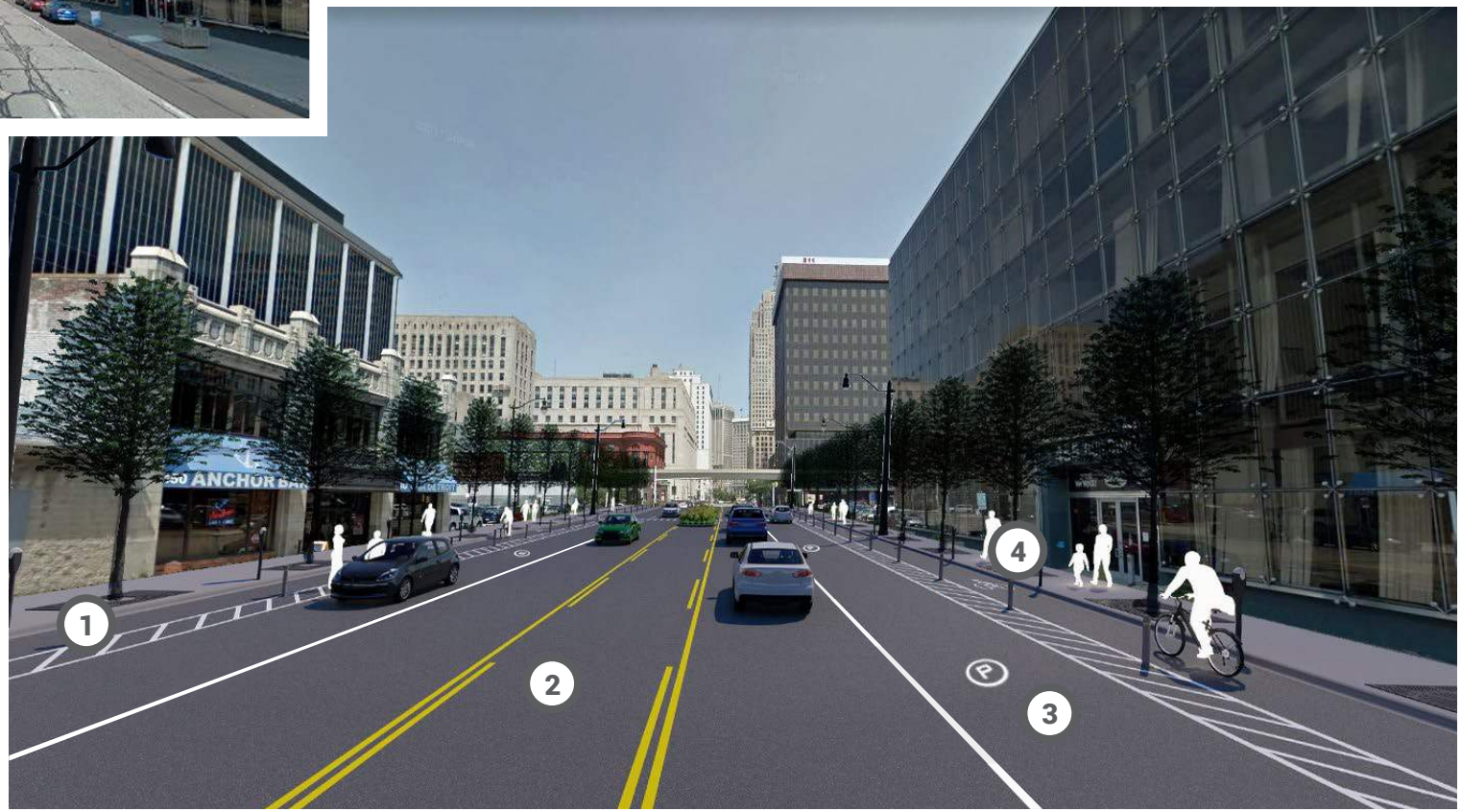
STREETSCAPE UPGRADES

Existing Street Conditions - Fort



1. Install buffered bike lanes.
2. Stripe center lane where left turns are needed; potential for landscaped median.
3. Add on-street parking.
4. Tree grates or raised curb planters as space allows or shorter pedestrian refuge islands.

Potential Street Design - Fort



Project Benefits

Cost Estimate $$$$

STREETSCAPE UPGRADES

Existing Street Conditions - Lafayette

1. Potential for designated drop-off and/or loading zones.
2. Stripe center lane where left turns are needed; potential for mid-block crossing with landscaped median.
3. Formalize on-street parking.
4. Tree grates or raised curb planters as space allows; landscape buffer for parking.

Potential Street Design - Lafayette

Project Benefits

Cost Estimate $$$$

ONE-WAY TO TWO-WAY STREET CONVERSIONS

Current Situation

Existing one-way streets within downtown complicates traffic flow, way finding, and overall connectivity. Because of this, most vehicular traffic stays on the primary arterials through downtown, rather than dispersing across the network. This underutilized capacity contributes to congestion along the major corridors, while the rest of the network remains under capacity. Converting select one-way streets to two-way can reopen these streets to better disperse traffic over the entire network.

One-way streets do offer benefits, such as easing traffic flow at peak hours and during special events. Some pros and cons of the one and two-way streets are listed below:

Potential Benefits

The following are potential benefits of converting one-way streets:

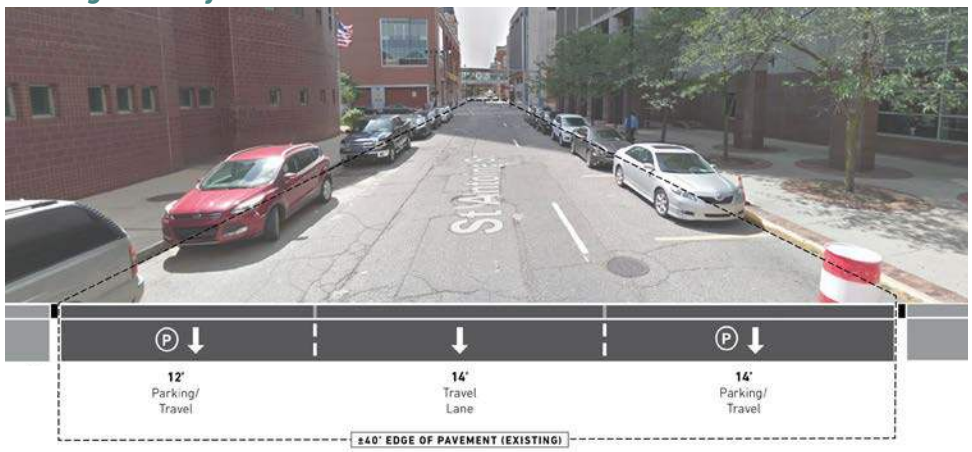
- Safer traffic speeds
- Reduced confusion for drivers
- Easier access and wayfinding to parking, businesses, destinations
- Decreased travel time/distance due to circling the block or traveling out of the way
- Safer pedestrian conditions and more livable, flexible streets
- More vibrant retail environment

Potential Negatives

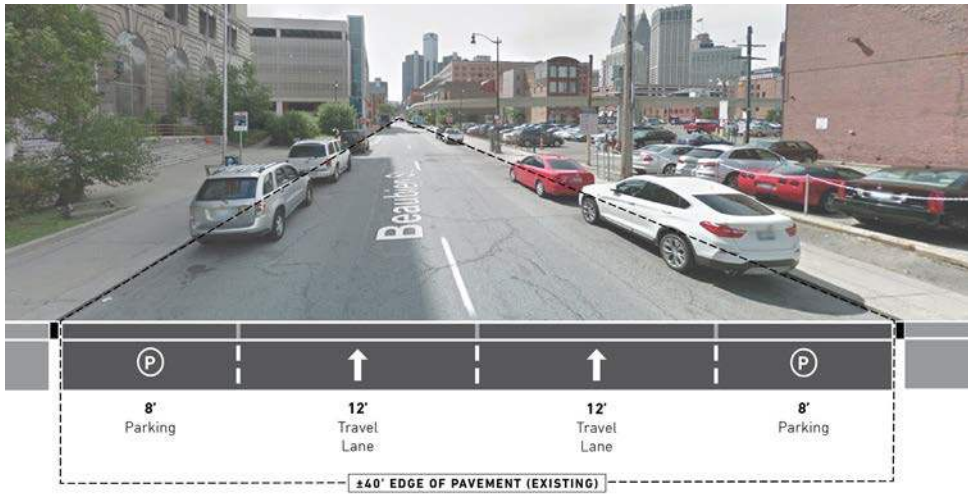
The following are potential negatives of converting one-way streets:

- Might increase traffic delay at signals
- Reduces space in the ROW for other uses (transit, bikes, etc.)
- Might impact on-street parking

Existing One-Way Street: St. Antoine



Existing One-Way Street: Beaubien



Project Benefits

Cost Estimate $$$$

ONE-WAY TO TWO-WAY STREET CONVERSIONS

Actions

The following are recommended steps to convert one-way streets:

- **Short-term:** In conjunction with Greektown Master Plan and MDOT, identify streets in Greektown for potential two-way conversion and begin study and design. Convert Park Ave between Fisher and Woodward to two-way.
- **Mid-term:** Convert any one-ways to two-ways in Greektown that are identified in the separate traffic evaluation in the Greektown Master Plan. Work with parking garage operators to modify access to accommodate two-way traffic.

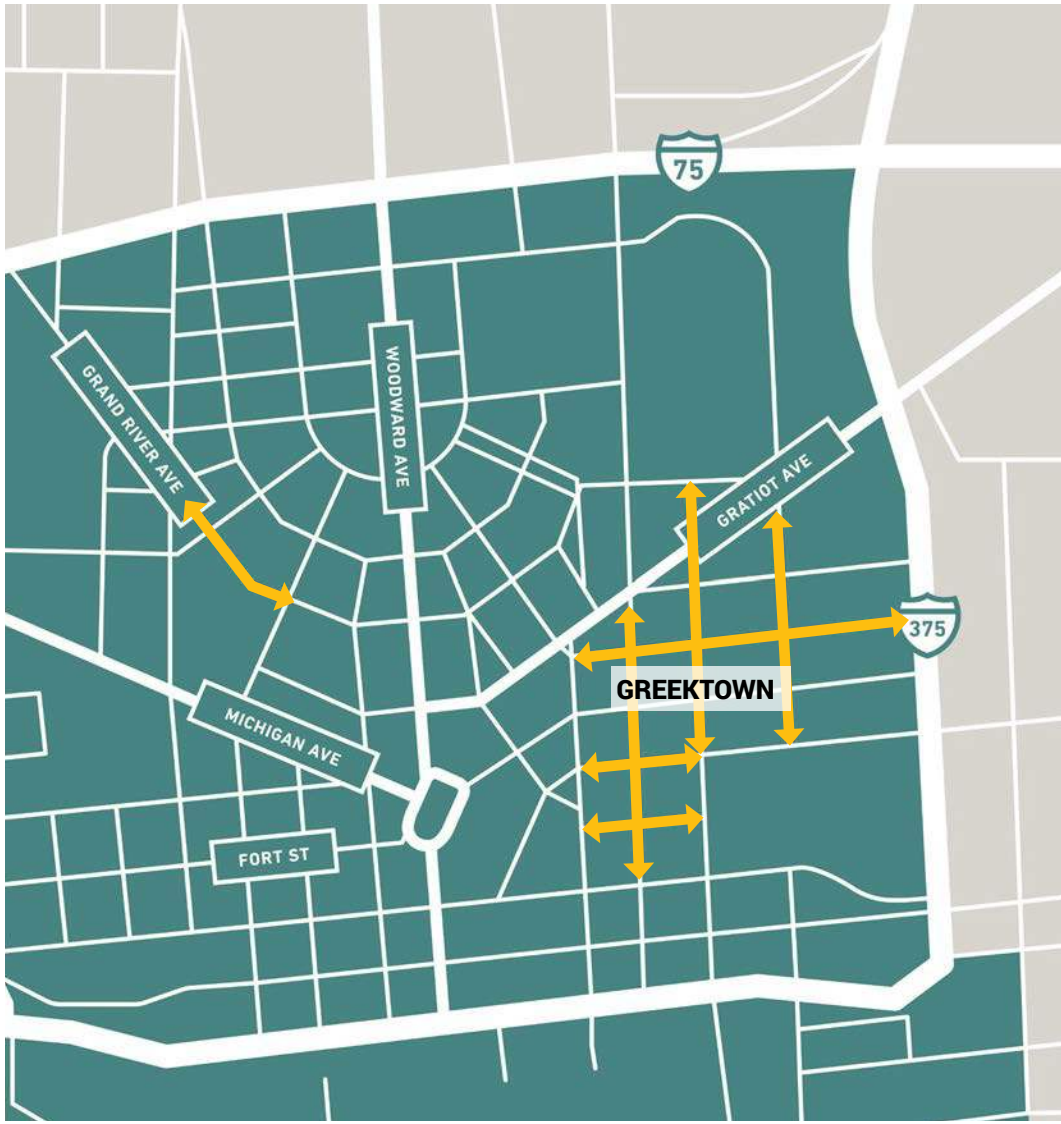
Implementation Partners

Partners responsible for these actions include:

- City of Detroit Department of Public Works (DPW)
- City of Detroit Planning and Development Department (PDD)
- City of Detroit Municipal Parking Department (MPD)
- Michigan Department of Transportation (MDOT)
- Greektown Preservation Society
- Parking garage operators

Note: Many of the one-way streets identified for potential conversion have the width to accommodate two-way travel, and retain on-street parking spaces.

Potential Conversions



Project Benefits

Cost Estimate $$$$

POLICIES AND PROGRAMS

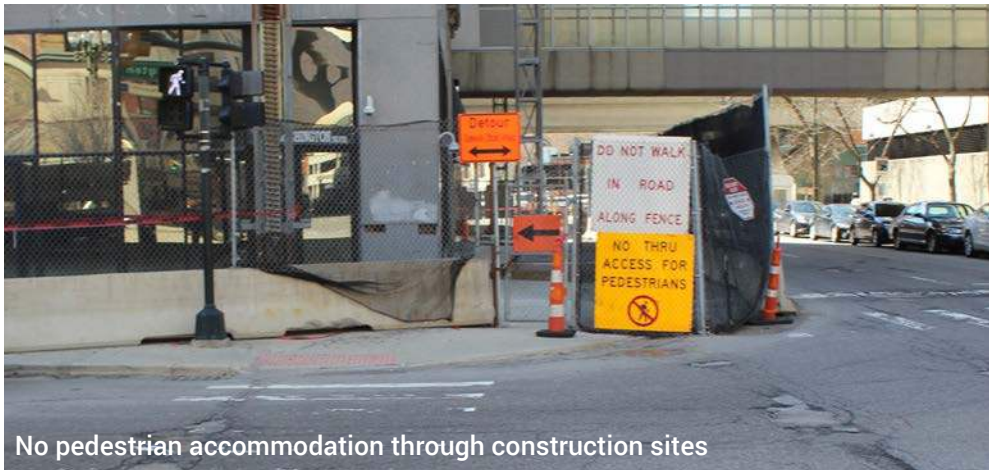
- P1 Construction Management Policy
- P2 Traffic Operations Improvements
- P3 Transit Service Enhancements
- P4 Walkability Improvements
- P5 Bike-ability Improvements
- P6 Curbside Management
- P7 Shuttle Management Policy
- P8 Off-Street Parking Management
- P9 Travel Demand Management
- P10 Development/Land Use Policies

P1 CONSTRUCTION MANAGEMENT POLICY

Current Situation

Construction projects in downtown have sidewalks, parking spaces, and even travel lanes closed, sometimes for several years. This creates dangerous conditions for pedestrians and negatively impacts traffic flow around the construction site.

- Pedestrians are forced to travel out of their way when sidewalks are closed, but often walk in the road instead.
- Motorists are forced to deal with detours as well as unpredictable pedestrian presence in the roadway.



No pedestrian accommodation through construction sites

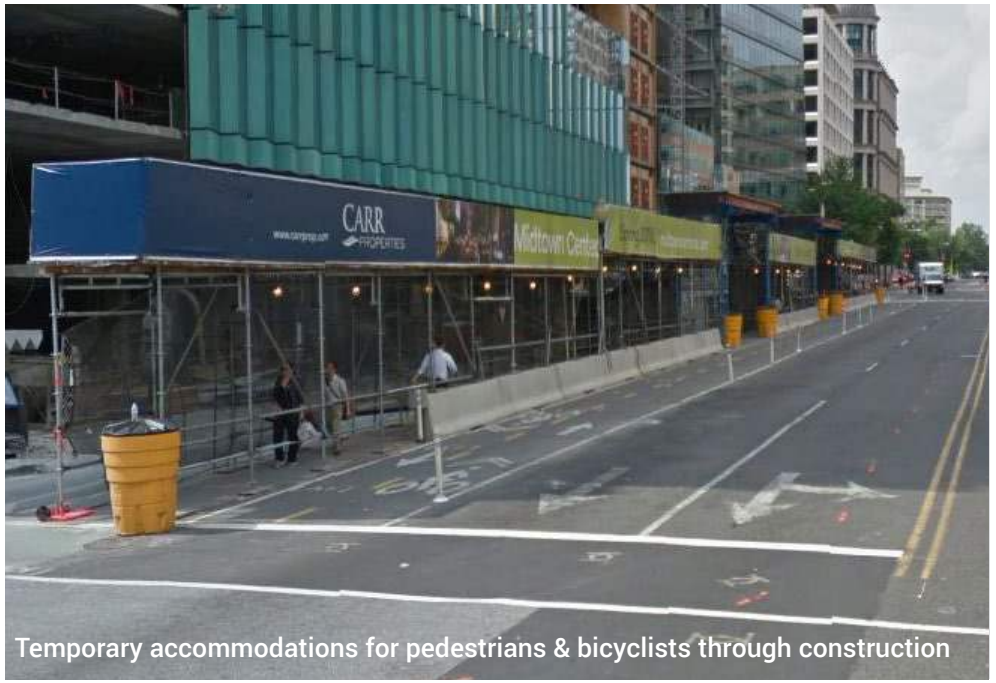
Actions

A written policy or standard for work zone safety will require a construction management plan to include safe accommodations for pedestrians, bicyclists, and transit stop access adjacent to the construction site.

Short-term:

- Initiate review of best practice policies and guidance from Washington, DC, Oakland, CA, and Columbus, OH.
- Develop and adopt new policy for maintenance of travel during construction.
- Require maintenance of pedestrian travel during construction for both development and street projects.

Recommendation



Temporary accommodations for pedestrians & bicyclists through construction

Implementation Partners

Partners responsible for these actions include:

- City of Detroit Department of Public Works (DPW)
- City of Detroit Planning and Development Department (PDD)
- Detroit Department of Transportation (DDOT)

Project Benefits

Cost Estimate $$$$

Active Traffic Management Program

MDOT and the City do not currently have active traffic management. Officers and civilian traffic guards are stationed on every street surrounding the arena or stadium to direct the flow of traffic during events and general information encourages use of alternative modes of transportation or to encourage longer stays downtown, which would help to mitigate congestion by staggering trips.

Additionally, many of the traffic signals downtown are older ITS technology with fixed-timing. Some are operated by the City while others are within the jurisdiction of MDOT. Uncoordinated traffic signal timing limits the ability to create efficient traffic patterns through downtown. Both the City and MDOT are in the process of upgrading older traffic signals, but more coordination is needed between the two systems. The City and MDOT would need to agree on targets such as acceptable levels of service and pedestrian crossing emphasis for this collaboration to be affective.

Implementation Partners

Partners responsible for these actions include:

- City of Detroit Department of Public Works (DPW)
- City of Detroit Planning and Development Department (PDD)
- Michigan Department of Transportation (MDOT)
- City of Detroit Police Department (DPD)
- Downtown Detroit Partnership (DDP)
- M-1 Rail (QLINE Detroit)
- Major Downtown Attractions (Little Caesars Arena, Comerica Park, Ford Field)

Existing Traffic Signal Cabinets Downtown

Actions

The following are recommended steps to improve traffic management:

Short-term:

- Improve internal communication process between DPD and DPW.
- Pilot new signal timing on Monroe in Greektown.
- Launch new external communication tools, including traffic map and social media.
- Develop mutual transportation signal timing and performance metrics that both MDOT and DPW will utilize.

Mid-term:

- Invest in signal communications and have all traffic signals in Downtown work as a singular system (DPW and MDOT).
- Develop online permitting system and map of construction occurring within the public ROW.

Long-term:

- Invest in traffic signal technology and more cameras at traffic signals to allow real time adaptation of timing.

Project Benefits

Cost Estimate $$$$

Garage Access Backing up Traffic on Larned Street

Parking Garage Design & Technology Upgrades

During the peak morning rush hour period, vehicles pulling to parking garages create congestion on the streets as the lines waiting to gain access back up into the curb lane. This is partially caused by the payment technology within the garage, and the location of those stations near the entrances from the street. A more efficient garage access process would relieve some of the congestion experienced on the street.

Some garage access points may also need to be redesigned to better accommodate conversion of some one-way streets to two-way. This could include technology upgrades to permit faster entry or relocation of the stations to queue within the garages instead of on the street

Implementation Partners

Partners responsible for these actions include:

- City of Detroit Municipal Parking Department (MPD)
- Private Parking Garage Owners and Operators

Actions

- **Existing Garages:**

  Incentivize commercial parking operators to invest in smart technology:

  - » Real-time occupancy tracking
  - » Gate-less entry/exit controls/payment
  - » Gate-control equipment that can directly communicate with and influence nearby traffic signals.
  - » Pending technology to predict vehicle entries and exits by time of day based on past events/weather patterns, etc.
  - » Variable second land that changes direction in or out, during peak times

Project Benefits

Cost Estimate $$$$

Transit Priority Treatments

The following treatments are physical and technological improvements that can enhance transit service efficiency and reliability.

- **Transit-Only Lanes** are travel lanes designated for the use of transit vehicles only; personal vehicles are typically only allowed to use the lanes to make right turns at intersections.
- **Queue Jump Lanes** are short segments of travel lane approaching an intersection designated for the use of transit vehicles to jump ahead of the general traffic queue. This movement requires the use of a special signal that allows only transit movement through the intersection so transit vehicles can pass queued vehicles.
- **Transit Priority Signals** are special traffic signals that respond to approaching transit vehicles.
- **Off-Board Fare Payment Technology** is farebox technology that allows transit users to pay their fare while waiting at the stop, rather than as they board the vehicle, speeding up the boarding process.

Actions

Specific locations for transit priority treatments will need to be identified through coordination between DPW and the transit agencies.

Short-term:

- Assess feasible/most desirable locations for installation of transit priority treatments.
- Pilot test treatments along Larned and Congress Streets (see Project Sheet D, page 38), as well as Michigan Avenue.

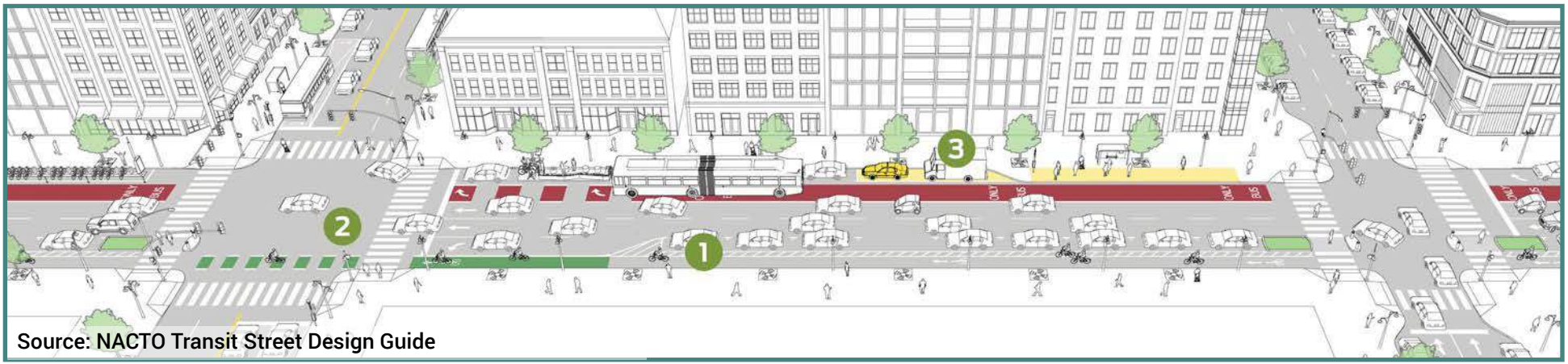
Mid-term:

- Install treatments along transit priority corridors in combination with transit route consolidation.

Implementation Partners

Partners responsible for these actions include:

- City of Detroit Department of Public Works (DPW)
- Detroit Department of Transportation (DDOT)



Source: NACTO Transit Street Design Guide

Project Benefits

Cost Estimate $$$$

Transit Signal Priority

Several of the site-specific recommendation, particularly those on Michigan Avenue, Washington Boulevard, Congress and Larned Streets, all of which are part of the transit priority network, include queue jump lanes or transit-only lanes. Transit signal priority (TSP) at these locations will further enhance transit travel times and include treatments such as:

- **Green Extensions** provide extra time for a detected transit vehicle to clear an intersection.
- **Green Reallocation** shifts the timing in the signal cycle when the green phase occurs—if the transit vehicle is on pace to arrive late, the green phase begins and ends late to accommodate transit.
- **Red Truncation** provides a green phase earlier than otherwise programmed, clearing an intersection approach with a waiting transit vehicle sooner than otherwise.
- **Phase Changes** provide special bus-only phases or prioritization of turn phases used for shared turn/queue jump lanes, and are also helpful when buses make left turns.

Actions:

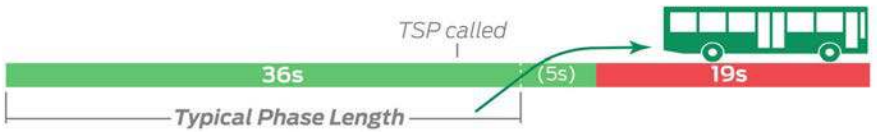
- **Short-term:** Coordinate with DDOT and SMART to establish criteria for applying TSP. Prioritize and implement TSP at signals along the transit priority network.

Implementation Partners

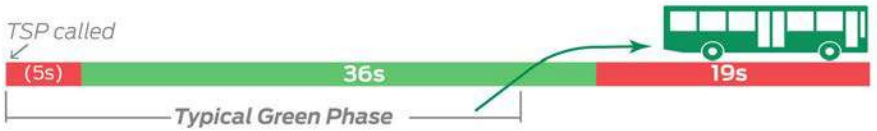
Partners responsible for these actions include:

- Detroit Department of Transportation (DDOT)
- City of Detroit Department of Public Works (DPW)
- Suburban Mobility Authority for Regional Transportation (SMART)

Green Extension



Green Reallocation



Red Truncation

Phase Changes

Source: NACTO Transit Street Design Guide

Bus Stop Design Guidelines

DDOT is already in the process of developing bus stop design guidelines that include recommendations for us of in-lane bus stops, assuring that bus stop lengths are adequate, standardizing and enhancing signage, and enhancing stops with shelter and other amenities (DDOT, Proposed Bus Stop Zone Standards, July 2, 2018).

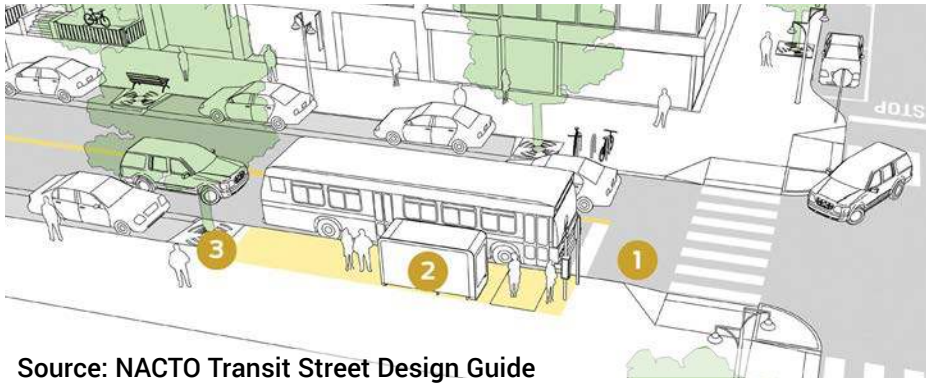
The draft guidelines are intended for use throughout Detroit and acknowledge that there are areas of the City, like Downtown, that merit even more enhancements. The Q-Line stops are a good model for the types of stations/stops that should be built along transit priority streets in Downtown Detroit. These stations/stops include:

- **In-lane stops** that will speed boarding and alighting; provide additional sidewalk space for bus shelters, trash receptacles, bike racks and other amenities; and minimize loss of on-street parking by reducing the required length of bus stops.
- **Branding** of stops to include transit shelters with maps and other information about buses using the stop; real-time information on bus arrivals (using automatic vehicle locator (AVL) technology); and illumination. Standardization of these treatments as well as landscape treatments such as trees will serve as a visual cue that this is a high priority transit corridor.
- **Floating bus stops** will reduce conflicts and travel delays associated with transit and bicycles sharing the curb lane. This concept moves the bus stop into the street allowing cyclists to pass behind the bus stop.

Actions

- **Short-term:** Coordinate with DDOT and SMART to establish desired standards for bus stops and how to implement them. Assess current stop conditions and needs; finish developing bus stop design guidelines.

In-Lane Bus Stop with Bump-Out



Source: NACTO Transit Street Design Guide

Red Paint Marking Bus Stop Location on Cass Avenue

Implementation Partners

Partners responsible for these actions include:

- Detroit Department of Transportation (DDOT)
- City of Detroit Planning and Development Department (PDD)
- Suburban Mobility Authority for Regional Transportation (SMART)

Integrated Transit Fare Payment

The cost to ride transit and the method of payment varies between the different providers and services that operate downtown today. A single fare card or other modern method of payment is needed to integrate the systems and allow users to seamlessly transfer between them.

Actions

- **Short-term:** Coordinate with DDOT, QLINE, DTC, and SMART to establish a single, modern form of payment for all available services. Initiate assessment of current payment options; work toward single payment system.

Implementation Partners

Partners responsible for these actions include:

- M-1 Rail (QLINE)
- Detroit Department of Transportation (DDOT)
- People Mover - Detroit Transportation Corporation (DTC)
- Suburban Mobility Authority for Regional Transportation (SMART)

ORCA Farecard in Seattle Works on All Transit Services

Walking Tour to Assess Existing Conditions

Walking Audit Program

City departments should coordinate an annual walking audit of downtown streets to assess the quality and condition of pedestrian facilities. This should include consideration of sidewalks, crosswalks, pedestrian signals, ADA accommodations, and stormwater treatment.

Actions

- **Short-term:** Coordinate with the relevant departments/agencies to establish a walking audit that covers a quarter of downtown streets each year. Identify the first priority set (quarter) of streets to audit; begin conducting walking audit on first set of streets.

Implementation Partners

Partners responsible for these actions include:

- City of Detroit Planning and Development Department (PDD)
- City of Detroit Department of Public Works (DPW)

Pedestrian Signalization Treatments

The following pedestrian signal treatments can help to improve pedestrian safety and establish priority for pedestrians at intersections with high pedestrian volumes.

- **Pedestrian Countdown Signals** show a pedestrian exactly how much time they have to cross the street.
- **Leading Pedestrian Interval (LPI)** is a tool that is designed to minimize conflict between pedestrians and turning vehicles by providing a WALK signal for pedestrians 3 to 7 seconds before any other traffic receives a green signal.
- **Pedestrian Scrambles** are a signal phase that stops all vehicular traffic to allow pedestrians to cross the intersection in any and all directions, including diagonally.

Actions

Specific locations for these treatments will need to be identified through coordination between DPW and MDOT, as appropriate.

- **Short-term**: Pilot test LPIs at the following intersections: Jefferson Avenue and Randolph Street; Jefferson Avenue and Beaubien Street; Jefferson Avenue and Griswold Street; Woodward Avenue and State Street; Lafayette Boulevard and Beaubien Street.
- **Mid-term**: Begin replacement of any pedestrian signals that do not currently have countdown signals. Require all future pedestrian signals to have countdowns, per the Manual on Uniform Traffic Control Devices (MUTCD).

Implementation Partners

Partners responsible for these actions include:

- City of Detroit Department of Public Works (DPW)
- Detroit Department of Transportation (DDOT)


High Quality Bicycle Parking Facility


Snow Removal in Dedicated Bike Facilities

Bicycle Parking Standards

Secure bicycle parking facilities are a necessary component of a comprehensive bicycle network. Without dedicated parking options, bicycles are often locked to parking meters, sign posts, benches, and other streetscape amenities, and frequently obstruct the sidewalk.

Actions

It is critical to establish a standard for the types and proper installation of bicycle parking in order to create a uniform and logical system.

- **Short-term:** Develop a standard for the desired types of bicycle parking and appropriate installation requirements. Refer to the Association of Pedestrian and Bicycle Professionals (APBP) Bicycle Parking Guidelines for best practices; coordinate with property owners to install bicycle racks in key areas throughout downtown.

Implementation Partners

Partners responsible for these actions include:

- City of Detroit Planning and Development Department (PDD)

Bicycle Facility Maintenance Program

Maintenance of existing bicycle facilities is necessary to ensure safety of bicyclists using the facilities, as well as other users interacting with bicyclists in the roadway. Proper maintenance should include consistent street sweeping of the bicycle facility in coordination with the regular street sweeping schedule, as well as snow removal during the winter months, and also upkeep of the facility pavement markings.

Actions

A dedicated program for facility maintenance should be developed that includes a schedule for regular maintenance and upkeep.

- **Short-term:** Develop annual maintenance program; invest in necessary equipment to properly maintain facilities.

Implementation Partners

Partners responsible for these actions include:

- City of Detroit Department of Public Works (DPW)
- City of Detroit Planning and Development Department (PDD)

P6 CURBSIDE MANAGEMENT

Current Situation

Curbside regulations focus on accommodating a traditional set of activities/uses, primarily short-term parking and loading zones for commercial vehicles. Compliance with basic curbside-use restrictions that exist downtown today, particularly No Standing Anytime and posted time limits, is quite low.

There is also a somewhat unique regulatory favor given to valet zones that serve specific office and mixed-use buildings – reflecting a lack of willingness among building visitors to rely on curbside parking and among building employees to park in nearby off-street facilities.

The lack of compliance with basic restrictions, and the number of valet zones, reflect and perpetuate a breakdown in the effectiveness of this vital urban infrastructure in accommodating downtown access and mobility. This is particularly problematic, as the value of, and demand for, curbside space accommodation has increased sharply as urban mobility options have diversified.

Dedicated transit lanes, bike lanes, bikeshare stations and bike racks, curb-extensions and parklets, and Lyft and Uber pickup/dropoff zones have become increasingly common curbside and curblane elements, greatly intensifying the need for regulatory accommodation, and effective regulatory compliance.

A reset is recommended, pairing a revamped, holistic, and network-focused approach to setting and maintaining curbside regulations with an initiative to seek significantly increased compliance across downtown.

Purpose of Curbside Management

Rationalize regulations, and seek better compliance, to optimize the access capacity of this vital component of downtown transportation infrastructure.

Actions

The following are recommended steps to improve curbside management:

Short-term:

- Initiate inter-departmental coordination meetings and pilot a new curbside regulation clean-up on Griswold Street.
- Form a working group to evaluate and formalize a set of functional priorities for curb lanes and curbside regulations; differentiate the order of priority based on the primary street function and network connectivity of the street/block. Reset the Valet-Zone policy to align with Functional Priority management approach, disallowing on Movement streets, and setting an annual rate based on the relative functional priority on other street types, linked to the value of on-street parking to local retail.
- Add meters to on-street parking locations that are not currently metered. Pilot test meter pricing.

Mid-term:

- Establish a new, "performance-based" approach that complements the new curbside priorities and regulations; use the regulatory compliance rate as a key performance indicator for enforcement.
  - » Roll out a campaign announcing the new regulatory framework, its rationale and goals.
  - » Align enforcement priorities and actions with key management objectives.
  - » Combine robust enforcement with visitor-friendly, progressive fine scale that begins with "courtesy" ticket.

Project Benefits

Cost Estimate $$$$

P6 GRISWOLD STREET CURBSIDE PILOT PROJECT

Current Situation

Griswold Street is currently congested due to a number of different activities taking place at the curb. Uncoordinated valet services, on-street parking, shuttle bus pickups, garage entries and exits, and regular bus service all compete for space on Griswold Street.

Actions

The following are recommended steps to improve the operations on Griswold Street:

- **Short-term**: Coordinate with SMART and DDOT to move transit services over to Washington Boulevard; evaluate results of new regulations and bus re-routing.
  - » **Audit signs:** Determine signs needed to clearly define the limits and use of curbside zones. Remove unnecessary signs.
- **Mid-term**: Install DDP bicycle facility on Griswold Street, if feasible.

Implementation Partners

Partners responsible for these actions include:

- Detroit Department of Transportation (DDOT)
- Downtown Detroit Partnership (DDP)
- City of Detroit Department of Public Works (DPW)
- City of Detroit Planning and Development Department (PDD)
- City of Detroit Municipal Parking Department (MPD)
- Suburban Mobility Authority for Regional Transportation (SMART)
- City of Detroit Office of the Chief Financial Officer (OCFO)

Current Situation

Valet, parked cars, deliveries, shuttles, and buses all compete for limited space

Recommendation

Clear signage designating appropriate curbside use regulations by time of day

Project Benefits

Cost Estimate $$$$

P7 SHUTTLE MANAGEMENT

Current Situation

Numerous privately funded and operated shuttle-bus services operate throughout the downtown and are not currently licensed. These services primarily rely upon curbside lanes and sidewalk areas to facilitate passenger pickup and drop-off activity, and to accommodate vehicle layover needs. Such services significantly reduce parking demand in the downtown, connecting downtown employees to remote parking locations, or downtown visitors. However, the redundancy of such services results in excessive impacts on curbside space availability, excess traffic on downtown streets, and greatly reduced efficiency in the movement of people on downtown streets.

Similar conditions in several large cities directly led to emerging models for service consolidation, many of which combine peak-hour employee-parking operations with visitor-circulator operations during middays, evenings, and weekends.

Peer City Precedent

Columbus, Ohio | Hopper Carts: on-demand, free, all-electric circulators
Columbus, Ohio | C-Bus: public transit downtown circulator
Austin, Texas | Chariot: Private/Public shuttle service

Implementation Partners

Partners responsible for these actions include:

- City of Detroit Department of Public Works (DPW)
- City of Detroit Buildings, Safety Engineering, and Environmental Department (BSEED)

Actions

The following are recommended steps to improve shuttle management:

Short-term:

- Establish a policy that requires all shuttles operating in Detroit to obtain a license.
- Facilitate a partnership between at least one large, downtown employer and a shuttle-service provider, who will provide free rides to partner-company employees, while also providing fare-based rides to the general public.
  - » This should not be limited to remote-parking shuttles, but also marketed to employees who may use the service as their primary commute mode.

Mid-term:

- Plan and facilitate a 6-12-month pilot of a visitor-circulator service for downtown, along the line of the FRED (Free Rides Everywhere Downtown) model established in San Diego, California and successfully replicated in other cities, including Columbus, Ohio.
  - » Use data provided by the vendor to measure service toward key performance objectives – rides, retail sales, customer satisfaction, reduced costs, etc.
  - » Market these measures to businesses to spearhead consolidation of current, overlapping services.
- Following the pilot test, if the pilot is successful, work toward establishing a more permanent DDOT-operated circulator that serves both downtown and midtown Detroit (similar to the CBUS in Columbus, Ohio).

Project Benefits

Cost Estimate $$$$

P8 OFF-STREET PARKING MANAGEMENT

Current Situation

There is too much off-street parking downtown. Despite strong perceptions that there is not enough parking, several hundred spaces sit vacant at any given time in a typical week. Most of these empty spaces, however, are not available to those who looking for somewhere to park, because they are reserved or restricted to specific populations. In addition, most of those looking for a space receive minimal guidance on where they can find spaces available to them. The result is a context of maximal infrastructure and minimal access, as empty spaces surround circling drivers in search of a space.

Best Practice management policies, programs, and technologies offer solutions to extract more capacity from existing supplies, and suggest an opportunity for the City or another third party to coordinate parking information and resource sharing across the downtown. By incentivizing, and even "brokering", shared-parking arrangements, while simultaneously providing an information platform to feed real-time parking-availability and directional information to drivers, such an effort could reverse the ongoing cycle of more parking/less access by:

- Redistributing more parking demand across more existing infrastructure, including "accessory" facilities currently restricted to the public;
- Reducing user frustration and confusion by making spaces easier to find, rates easier to compare, and experiences more predictably painless;
- Ensuring that transit, bike, and pedestrian options are also promoted alongside, and equal to, driving options.

Current Situation

Independent Parking Operators Partnering to Form Clearinghouse

Actions

The following are recommended steps to improve off-street parking:

- **Short-term:** Review and make changes to the zoning code.
- **Mid-term:** Establish a central clearinghouse for organizing and distributing public parking information, hosted by a single organization in coordination with municipal, commercial, and private parking owners/operators, and promoted both online and on-site with cohesive branding and messaging. This should be modeled on the Park PGH program as follows.
  - » Aggregate data on public parking supply, rates, and hours of operation/public access.
  - » Focus on garages that have modern gate equipment, and incentivize others to invest in it, to provide "availability" data.
  - » Publish an online and mobile "real time" information platform to track available parking at partner facilities.

Project Benefits

Cost Estimate $$$$

P8 OFF-STREET PARKING MANAGEMENT

Actions *(continued from previous page)*

- **Mid-term:** Develop a shared parking brokerage that incorporates private/accessory facilities into the clearinghouse system created in 2018, using mobile-payment and other emerging payment technologies to allow facility owners to monetize their off-hour capacity. Similar to the Park Omaha program, this should be established as follows:
  - » Reach out to interested, early-adopter parking operators.
  - » Connect parking operators with the Passport Parking vendor.
  - » Passport will provide signage, work with the owner to set rates and hours, and set up a revenue stream to direct all revenue to the facility owner.
  - » Connect participating facilities to the clearinghouse system, within which they will appear as just another parking option.
- **Long-term:** Implement start-to-finish driver guidance systems, including online ("before you go"), "en-route" wayfinding and signage (confidence markers) and facility-based and branded real-time signage to direct drivers to facilities with available parking.

Purpose of Off-Street Parking Management

Reduce pressure on curbside capacities by optimizing off-street parking efficiency and accessibility.

Peer City Precedent

Pittsburgh, PA | Park PGH: web-based real-time parking information
Seattle, WA | SDOT e-Park: parking information and guidance system

Recommendation

Implementation Partners

Partners responsible for these actions include:

- Downtown Detroit Partnership (DDP)
- Private Parking Facility Owners & Operators
- City of Detroit Department of Public Works (DPW)
- City of Detroit Planning and Development Department (PDD)
- City of Detroit Municipal Parking Department (MPD)
- Other Public Agency Parking Facility Owners

Project Benefits

Cost Estimate $$$$

P9 TRAVEL DEMAND MANAGEMENT

Current Situation

Improving downtown mobility will require a re-balancing of the auto-oriented infrastructure, but will also require a shift in the number of people driving alone. While some of the major employers in downtown already offer incentives for employees to use modes other than driving alone, these programs do not currently extend to all downtown employees.

A centralized entity to develop and promote programs that would expand access to these commuter benefits for all downtown employees would help to incentivize more commuters to choose other modes, and reduce demand on parking downtown.

Implementation Partners

Partners responsible for these actions include:

- Downtown Detroit Partnership (DDP)
- City of Detroit Department of Public Works (DPW)
- City of Detroit Planning and Development Department (PDD)
- Detroit Department of Transportation (DDOT)
- Suburban Mobility Authority for Regional Transportation (SMART)
- Southeast Michigan Council of Governments (SEMCOG)
- Downtown Employers and Philanthropic Partners

Peer City Precedent

Seattle, WA | Commute Seattle
Centralized TMD and TDM information platform

Actions

Step 1: Create a centralized information and resource center/portal for multimodal travel options and benefits.

- **Short-term:** Promote SEMCOG's Commuter Connect tool to downtown employers and commuters.
- **Short-term:** Develop a one-stop transportation information/resource website/mobile app for downtown with a focus on real-time travel alerts, parking info, etc.
- **Mid-term:** Explore opportunities to establish a "storefront" info/resource center for downtown commuters/travelers.

Step 2: Develop a transit pass incentive program.

- **Short-term:** Pilot a demonstration program with supportive employers to test the concept over a 12-month period.
- **Mid-term:** Use program results to customize a comprehensive transit pass program for all downtown employers and commuters; cultivate political and financial support for the transit pass program.

Step 3: Create a centralized transportation coordination program or transportation management association (TMA).

- **Mid-term:** Provide transportation programs and services to all downtown commuters and travelers.

Project Benefits

Cost Estimate $$$$

Transportation Impact Study Policy

Current Situation
The City of Detroit requires a Traffic Impact Study (TIS) for development projects that might generate over a certain threshold of traffic based on the Institute of Transportation Engineers (ITE) Trip Generation Handbook. At a national level, the traditional TIS process is evolving, specifically for urban areas, to also consider the impact and improvements needed for pedestrians, bicyclists, transit users, and curbside activity. ITE also has a new Trip Generation Manual that provides a methodology for quantifying "people trips" instead of vehicle trips for these studies.

Actions
The City should require this type of study for both new developments and re-occupancies. It could include analysis and recommendations for programs or design changes to help shift travel from single occupant vehicles to shared trips, transit, and bicycling. Measures to maintain pedestrian flow during construction and how to improve pedestrian conditions by project opening date should also be included.

- **Short-term:** Evaluate current TIS policy and where updates are needed to account for multimodal travel; develop process for estimating "people trips" for mixed-use developments (refer to ITE or TripsDC.org for relevant tools).
- **Mid-term**: Require new process for all new developments.

Implementation Partners
Partners responsible for these actions include:

- City of Detroit Department of Public Works (DPW)
- City of Detroit Planning and Development Department (PDD)

Access Management Policy

Current Situation
The number, location, and design of driveways along a street have a significant impact on traffic operations, the ease of travel for pedestrians and bicyclists, and safety for all types of travelers. There are many situations downtown today where parking lots have multiple or excessively wide driveways, or simply lack defined access. In some cases, vehicles drive over the curbs and sidewalks randomly.

Actions

The City should identify locations where existing driveways are causing problems. This may include driveways too close to intersections, driveways that are not well spaced from access points across the street, or illegal access that never received a permit. A more involved permit process is recommended that includes criteria such as:

1) is a separate access point required to provide "reasonable access"?

2) is the access located appropriately in relation to nearby intersections and access points across the street?

3) can the design be changed to reduce the distance pedestrians and bicyclists must cross the driveway, or to help ensure very low speed vehicle maneuvers?

- **Short-term:** Review current permit process; update process to include more stringent regulation.
- **Mid-term**: Evaluate current access points for re-assessment or closure.

Implementation Partners
Partners responsible for these actions include:

- City of Detroit Department of Public Works (DPW)
- City of Detroit Planning and Development Department (PDD)
- Michigan Department of Transportation (MDOT)

ACKNOWLEDGEMENTS

WORKING GROUP

SEMCOG
Alex Bourgeau
Christina Ignasiak

MDOT
Jim Schultz

City of Detroit
Mark de la Vergne
Caitlin Marcon
Vince Keenan

Consulting Team:
MKSK
Fehr & Peers DC
Nelson\Nygaard
Lovio George

STAKEHOLDERS

Bedrock
Blue Cross Blue Shield of Michigan
City of Detroit Municipal Parking Department (MPD)
City of Detroit Planning and Development Department (PDD)
City of Detroit Department of Public Works (DPW)
City of Detroit Department of Transportation (DDOT)
City of Detroit
Detroit Athletic Club
Detroit Experience Factory
Detroit Greenways Coalition
Detroit Police Department
Detroit Riverfront Conservancy
Detroit Transportation Corporation (People Mover)
Downtown Detroit Partnership (DDP)
DTE Energy
General Motors
Metro Valet Parking
MOGO Bikeshare
QLINE Detroit
Royal Transportation
Suburban Mobility Authority for Regional Transportation (SMART)
Wayne Parking
Wayne County