City of Pleasant Ridge
23925 Woodward Avenue
Pleasant Ridge, Michigan 48069

Regular Planning Commission Meeting
Monday, July 27, 2015

Members of the Planning Commission, and Residents: This shall serve as your official notification of the Regular Meeting of the Planning Commission to be held Monday, July 27, 2015, 7:00 P.M., in the City Commission Chambers, 23925 Woodward Avenue, Pleasant Ridge, Michigan 48069. The following items are on the Agenda for your consideration:

REGULAR PLANNING COMMISSION MEETING-7:00 P.M.

1. Meeting Called to Order.

2. Roll Call.

3. Consideration of the following minutes:
   a. Regular Planning Commission Meeting held Monday, June 8, 2015.

4. **PUBLIC DISCUSSION** – Items not on the Agenda.

5. Woodward/I-696 Complete Streets Study.

6. Update on Traffic Calming Pilot Projects on the Ridge Road/Oakland Park intersection.

7. Other Business.

8. Adjournment.

In the spirit of compliance with the Americans with Disabilities Act, individuals with a disability should feel free to contact the City at least seventy-two (72) hours in advance of the meeting, if requesting accommodations.

City of Pleasant Ridge
23925 Woodward Avenue
Pleasant Ridge, Michigan 48069

Regular Planning Commission Meeting
Monday, June 8, 2015

Having been duly publicized, Chairman Bolach called the meeting to order at 7:00 p.m.

Present:	Bolach, Christensen, Decoster, Laidlaw, McAuliffe, McCutcheon, O'Brien, Schlesinger
Also Present:	City Manager Breuckman
Absent:	Lenko

Minutes

PC-2015-1511

Motion by Schlesinger, second by McAuliffe that the minutes of the Regular Planning Commission Meeting on Monday, May 4, 2015, be approved.

Adopted:	Yeas:	Bolach, Christensen, Decoster, Laidlaw, McAuliffe, McCutcheon, O'Brien, Schlesinger
	Nays:	None.

Complete Streets Plan Update

City Manager Breuckman explained that the City is involved in ongoing planning processes regarding complete streets improvements along Woodward and other streets within the community. Staff is proposing to amend the City Code of Ordinances to establish a complete streets ordinance pursuant to Public Act 135 of 2010. The proposed complete streets ordinance would establish that the City of Pleasant Ridge will consider complete streets improvements in all public works projects. The City is considering a number of pilot projects in the coming year to improve our streets consistent with complete streets concepts.

The ordinance will provide a clear statement of intent for the City, and will also form the basis upon which we consider the adoption of a complete streets plan based on the Gibbs Woodward/696 study and the complete streets study being completed for the entire Woodward Corridor by Parsons Brinckerhoff. Those plans will be brought forward for adoption as the City's Complete Streets Plan after adoption of the Complete Streets ordinance.

Practically speaking, the ordinance will not change how the City operates when making improvements on our local streets. Adoption of the ordinance will serve as our statement of intent and will require MDOT to consider our adopted plans whenever they are proposing improvements to Woodward or 696 through Pleasant Ridge. We will forward the Gibbs Study to the Planning Commission once we

receive it. The City Commission will be considering a complete streets ordinance, we will proceed to review the Gibbs and Parsons Brinckerhoff studies for adoption as the City's Complete Streets Plan with the Planning and City Commissions.

Exterior Design Standards

City Manager Breuckman gave a presentation regarding proposed exterior design standards. Pleasant Ridge has a strong architectural character. The City was developed largely between 1910 and 1930, which was a period of architectural transition. During that time, new construction methods and materials were changing how buildings were built, and also opening up new possibilities for architecture. The City has long recognized that preserving our traditional architectural character is an important task. For this reason the Neighborhood Compatibility requirements were adopted into Section 82-166 of the Zoning Ordinance. However, the neighborhood compatibility standards are subjective, and do not offer specific guidance on what it is that Pleasant Ridge expects for the design and construction of new buildings. I am proposing that the City adopt a new style-neutral method of regulating new construction to ensure that new buildings are compatible in scale and design with the established character of Pleasant Ridge.

Other Business

Commissioner Decoster commented about the potential of rezoning the areas near the railroad tracks, on the eastside of Woodward.

With no further business, Chairman Bolach adjourned the meeting at 7:43 p.m.

City of Pleasant Ridge

James Breuckman, City Manager

From: Jim Breuckman, City Manager

To: Planning Commission

Date: July 23, 2015

Re: Woodward-696 Complete Streets Plan

Overview

The City Commission adopted a Complete Streets ordinance at its July 14 meeting. The ordinance references a complete streets plan to be adopted by the City. The recently completed Woodward-696 Complete Streets plan can serve as the first component of Pleasant Ridge's complete streets plan.

Background

The complete streets ordinance establishes that the City of Pleasant Ridge will adopt a complete streets plan and will consider complete streets improvements as part of all local public works projects. The City is considering a number of pilot projects in the coming year to improve our streets consistent with complete streets concepts. The adoption of the ordinance and plan will also provide the City with some leverage with MDOT when improvements are proposed for Woodward Avenue.

The Pleasant Ridge complete streets plan will consist of three parts:

1. The Woodward-696 Complete Streets Study recently prepared by Gibbs Planning Group.

2. A Woodward Complete Streets Plan being prepared for the entire 26-mile length of Woodward for the Woodward Avenue Action Association by Parsons-Brinckerhoff.

3. A local street Traffic Calming and Green Infrastructure manual being prepared for the City by Harley Ellis Devereaux.

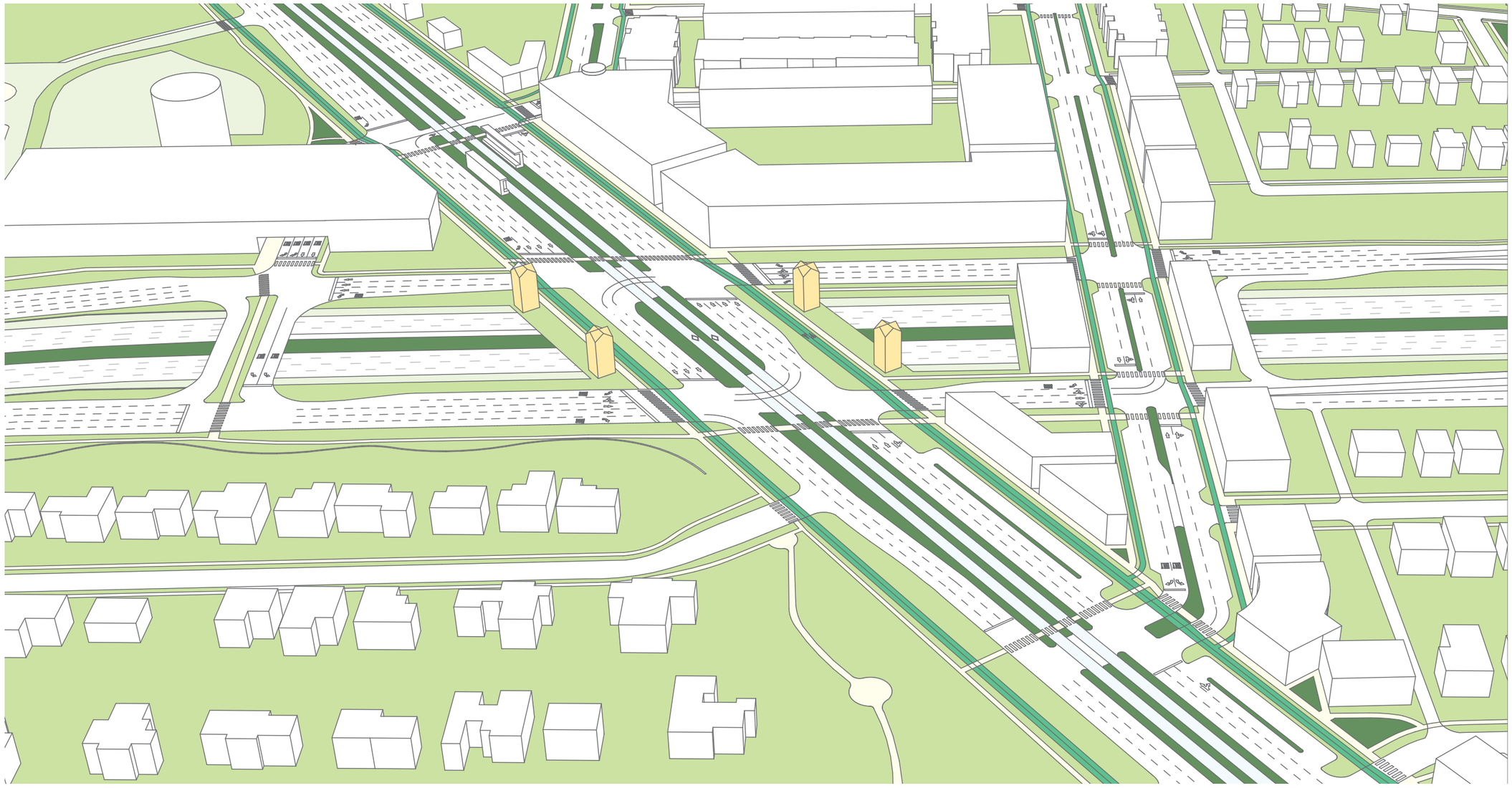
Components 2 and 3 are anticipated to be completed this fall, and will be forwarded to the Planning Commission for review, comment, and adoption as they are finished.

Requested Action

Approval of the attached resolution adopting the Woodward/696 Complete Streets Study as the first component of the Pleasant Ridge Complete Streets Plan.

Woodward-696 Conceptual Complete Streets Study

Huntington Woods • Pleasant Ridge • Royal Oak, Michigan



Prepared For: Woodward Avenue Action Association, City of Huntington Woods, City of Pleasant Ridge and City of Royal Oak

Consulting Team: Gibbs Planning Group, Inc., Nelson\Nygaard Consulting Associates, Peter Swift, and Associates, PE., The Street Plans Collaborative and TND Engineering.

04 June 2015

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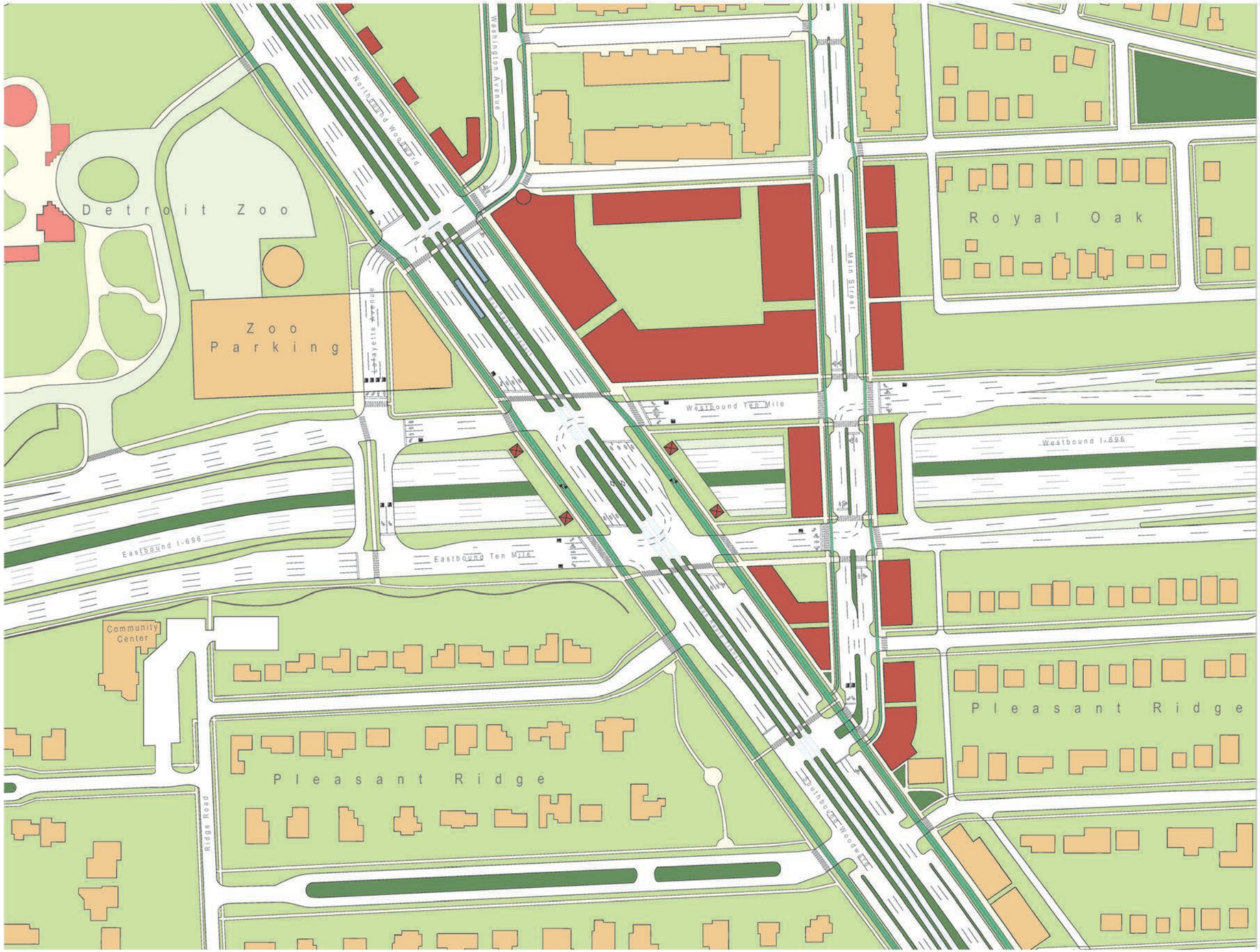
Woodward & I-696 Conceptual Complete Streets Study

Long-Term Concept

Huntington Woods, Pleasant Ridge, Royal Oak, Michigan



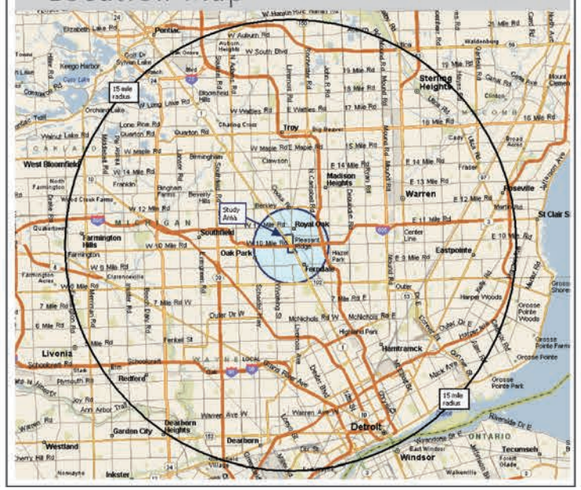
Key

- Proposed Bldg. Envelope
- Existing Building
- Zoo Building
- Bus Rapid Transit Stop
- Cycle-Track - Bike Lane
- Sidewalk
- Bus Rapid Transit Lane
- Median/Green Space

N

1" = 200'

Location Map



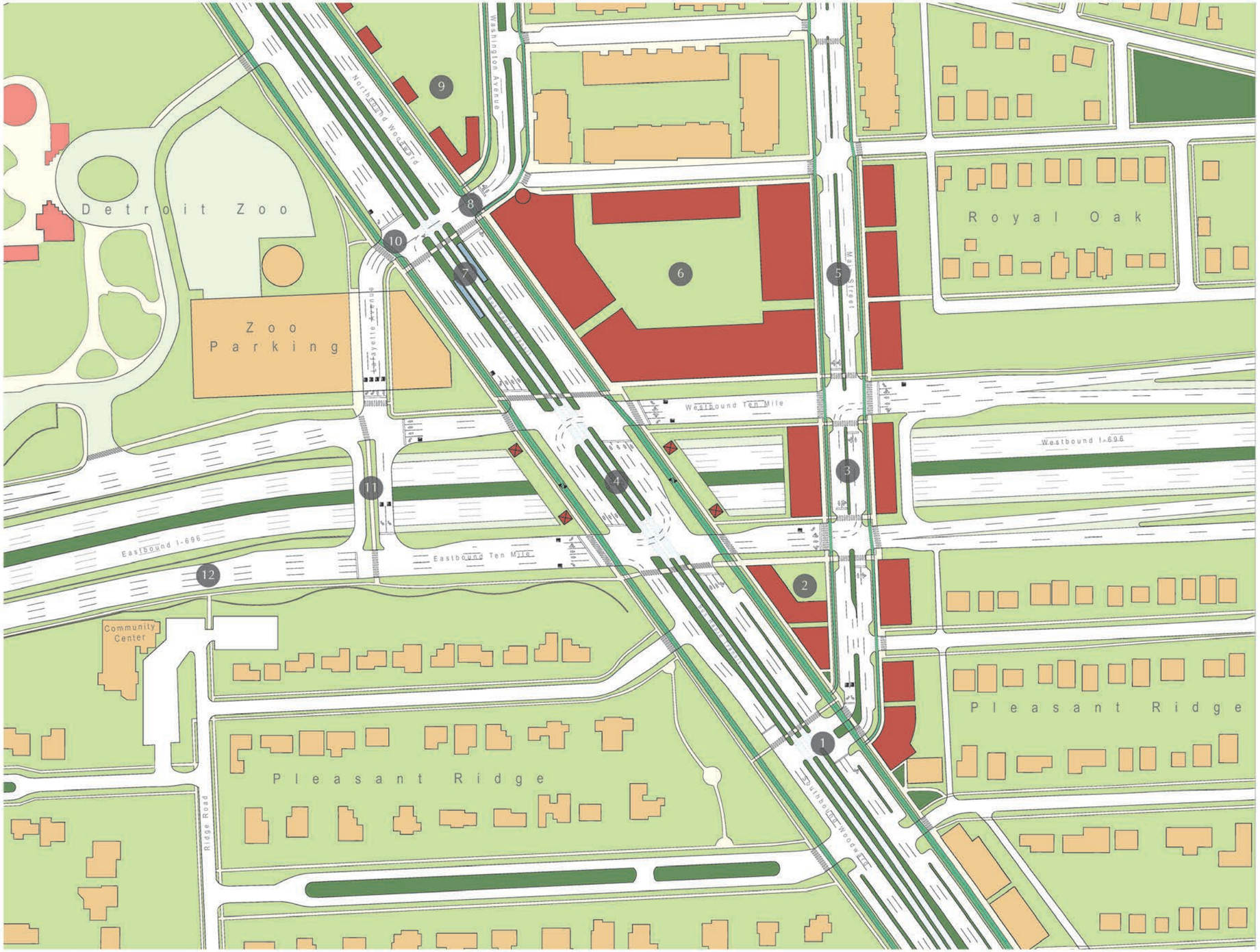
Consulting Team:Gibbs Planning Group, Inc., Nelson\Nygaard Consulting Associates, Peter Swift, and Associates, PE., The Street Plans Collaborative and TND Engineering.

Limits of Study: The images and recommendations illustrated on page are conceptual artist renderings for general discussion and planning purposes only. Further research, planning, design, engineering and permitting are required PRIOR to implementing any pedestrian, bicycle, streetscape, signage, landscaping or street modifications.

Woodward & I-696 Conceptual Complete Streets Study

Long-Term Concept

Huntington Woods, Pleasant Ridge, Royal Oak, Michigan



Design Features

1. - Two-Way Main Street
   - Southbound left-turn onto Woodward
   - Northbound right-turn onto Main
2. - Triangle Development
   - Complete two-sided Main Street
   - Expanded on-street parking
3. - Capped Overpass for Liner Shops
   - Partial cap/cantilever for two-sided Main St.
   - On-street parking with optional rear parking
4. - Woodward-696 Configuration
   - Partial cap/cantilever for pedestrian facilities
   - Civic art
5. - Main Street Enhancements
   - Close Maryland St. for developable parcel
   - Four total lanes, on-street parking, median
6. - Developed Vacant Parcel
   - Buildings built to lot-lines along Main St, Woodward, Ten Mile. Parking concealed.
7. - Bus Rapid Transit Station
   - Stations located in the median
   - Crosswalk moves to south median
8. - Washington Avenue Configuration
   - Two southbound lanes to Lafayette/Ten Mile
   - Right-turn onto one NB Washington lane
9. - Liner Buildings
   - Buildings conceal existing parking lots
   - Retrofit suburban conditions
10. - Lafayette Configuration
    - SB right-turn to Lafayette/Ten Mile
    - Consolidated street crossings to Zoo
11. - Expanded Overpass Crossing
    - Reduce Lafayette thru-lanes from three to two
    - Widen pedestrian crossing and plant or paint
12. - Connect Pedestrian Network
    - Connect Ridge Rd sidewalk to Ten Mile (PR)
    - Connect Huntington Rd to Woodward (HW)

N

1" = 200'

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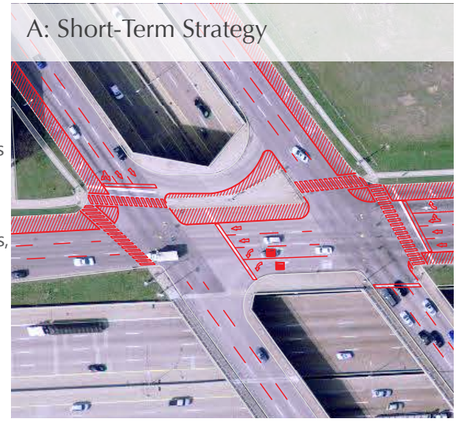
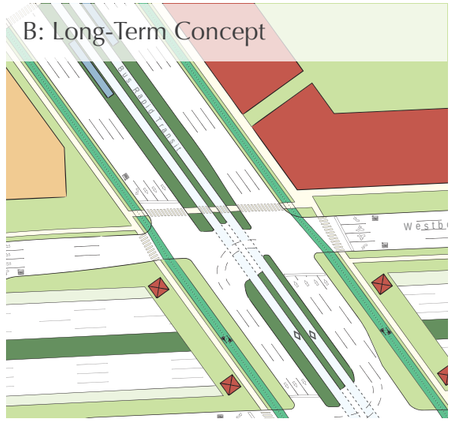
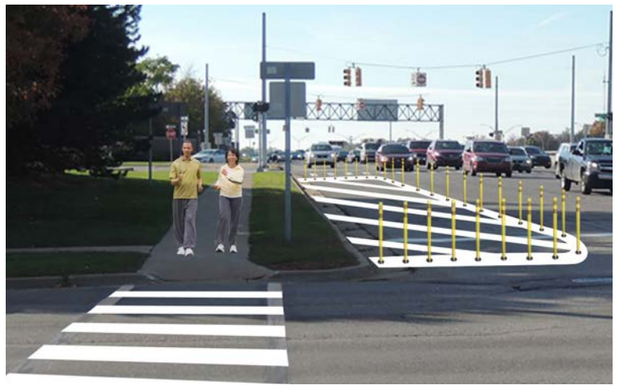
Using This Study

This study is organized by short-term road diet strategies (a) and long-term concepts (b). The short-term plans illustrate lane closures, lane-line realignments, road-space reclaimations and pedestrian enhancements that may be tested. The long-term concept demonstrates best practices for pedestrian and non-motorized facilities, urban design and development, which can be accomodated with the current right-of-way should the underpass be removed and BRT implemented. The results of short-term testing should influence the eventual implementation of the long-term concept.





The Process: Incremental Experimentation



With potentially limited funding, incremental, small scale improvements could be viewed as a low-cost way to stage more significant investments. The four-step process above illustrates implementing a road diet by: (1) testing the design with construction barrells (2) if successfull making the temporary design more permanent with paint and delineators (3) eventually making permanent changes to infrastructure (4) allowing for complementary land uses to support walkability and placemaking.

Complete Streets Elements

Cycle Track

Two-way cycle tracks are physically separated lanes that allow bicycle movement in both directions on one side of the road. A cycle track is physically separated from motor traffic and distinct from the sidewalk, providing comfort to cyclist and pedestrian alike.

Local Access Lane

Local access lanes provide local vehicle access separated from through travel lanes to simultaneously move vehicles on the primary roadway while providing a calm, spacious pedestrian and living environment for adjacent businesses and residences.

On-Street Parking

On-street parking provides motorists with the opportunity to park close to their destination. Not separated from the roadway, on-street parking slows down drivers who are instinctevly watchful of other cars while placing a barrier between pedestrians and cars.

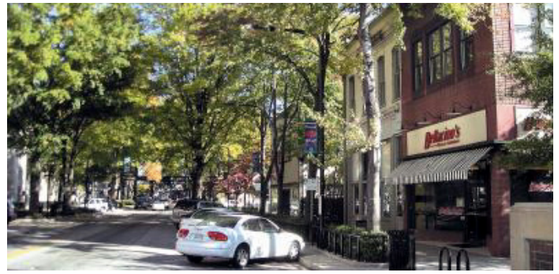
Protected Bike Lane

Protected bike lanes are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane.

Sidewalk

Sidewalks are conduits for pedestrian movement and access, they enhance connectivity and promote walking. As public spaces, sidewalks serve as the front steps to the city, activating streets socially and economically.

Street Trees



Street trees enhance city streets both functionally and aesthetically. Trees provide shade to homes, businesses, and pedestrians. Street trees also have the potential to slow traffic speeds. Aesthetically, street trees frame the street and the sidewalk as discrete public realms, enriching each with a sense of rhythm and human scale.

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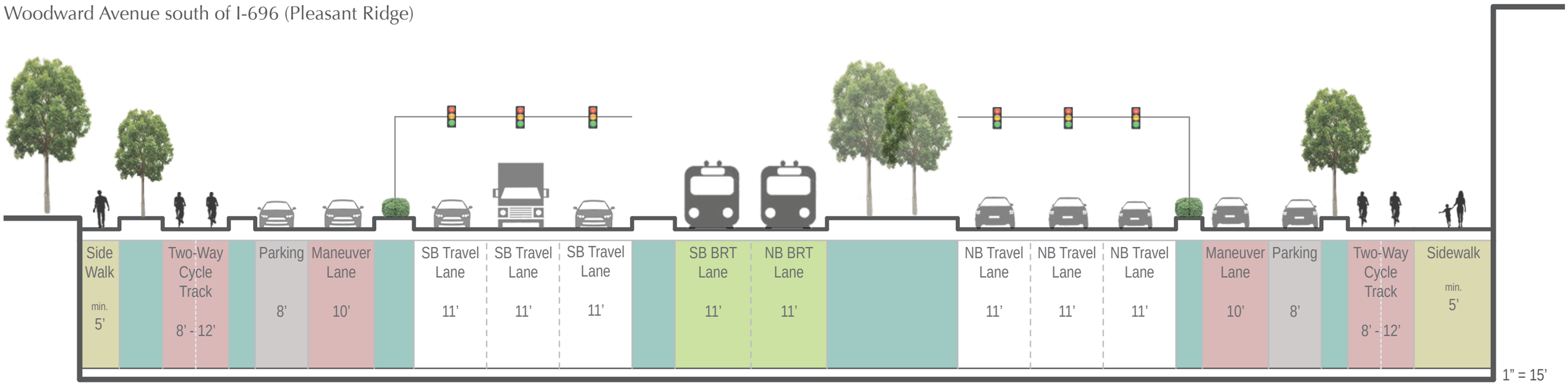
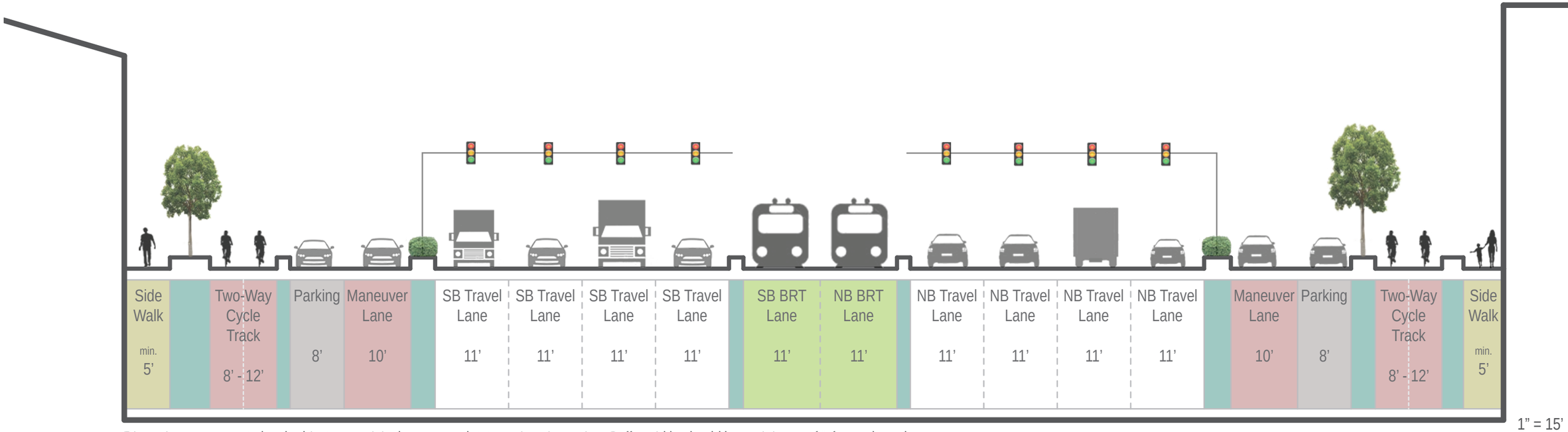
Woodward Avenue south of I-696 (Pleasant Ridge)

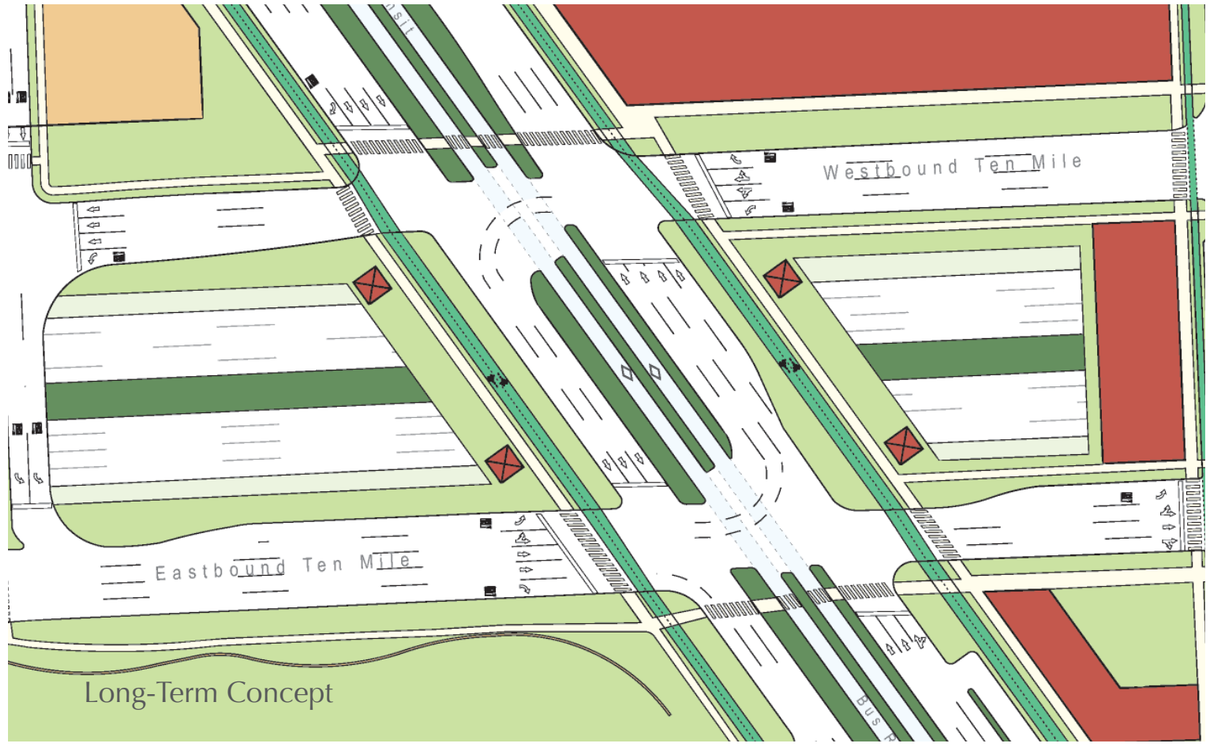


Woodward Avenue north of I-696 (Royal Oak & Huntington Woods)



Dimensions are suggested and subject to municipal, county and state engineering review. Buffer widths should be a minimum of 3 feet and may be adjusted as necessary. Existing street trees should be accomodated to the extent possible.

Short-Term Road Diet



Long-Term Concept

Woodward & Ten Mile (696) Concept

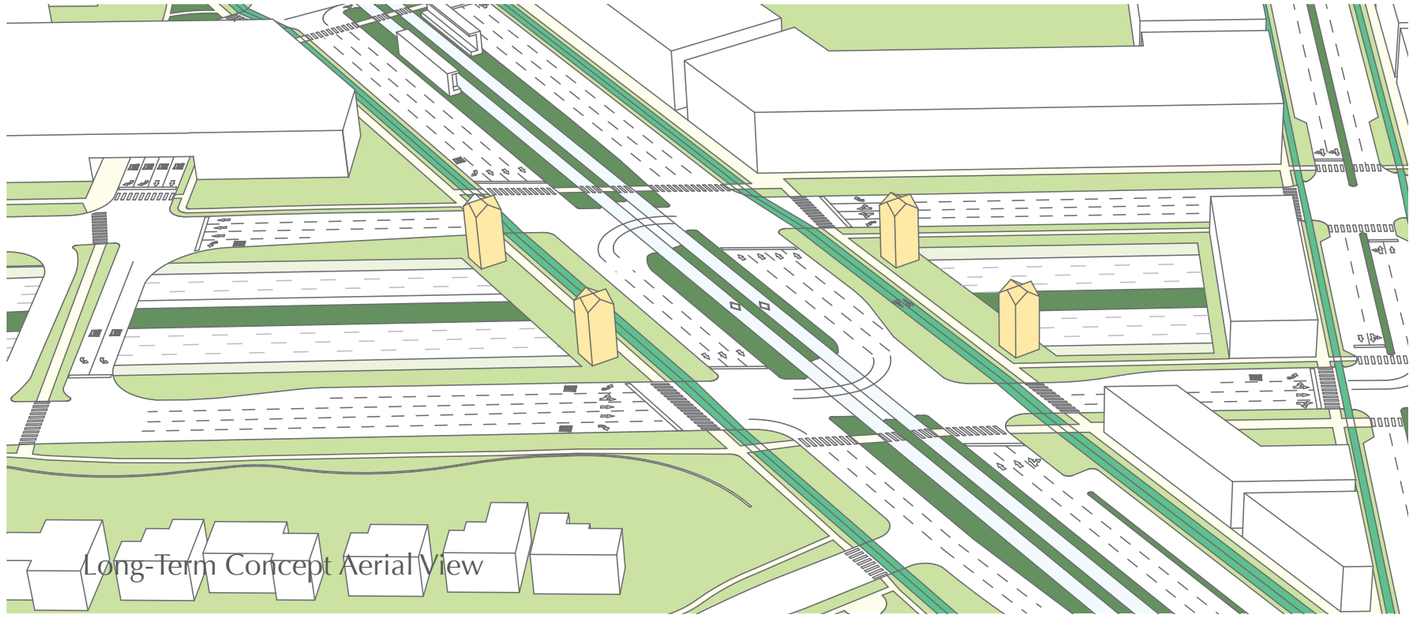
Short-Term Implementation

- Shorten pedestrian crossing distances across EB Ten Mile, WB Ten Mile and SB Woodward.
- Reduce dedicated turn-lanes for EB Ten Mile, WB Ten Mile and SB Woodward.
- Add buffer around pedestrian islands crossing Woodward by through-lane reduction, and turn-around size adjustment. Saw cut and paint pedestrian islands for improved comfort. Add "zebra" pedestrian crossings.
- Consider revised signage to improve driver navigation through intersection, especially for turn-lanes onto NB Woodward and Main Street.

Long-Term Concept

- Remove underpass; all Woodward traffic at-grade.
- Begin three-lane SB Woodward south of WB Ten Mile and four-lane NB Woodward north of EB Ten Mile.
- Center-running bus rapid transit lanes in median.
- Two-way cycle track on NB-SB sides of Woodward.
- Partial cap or cantilever over 696 to accomodate cycle track, widened sidewalk and civic art.
- Add civic art to properly frame the right-of-way and give area sense of arrival and identity.

Key Design Features: maximum 11' vehicle travel lanes, minimum 10' two-way cycle track, minimum 6' sidewalk, minimum 10' buffer between travel lanes and two-way cycle track, 10'-11' bus rapid transit lane


Long-Term Concept Aerial View

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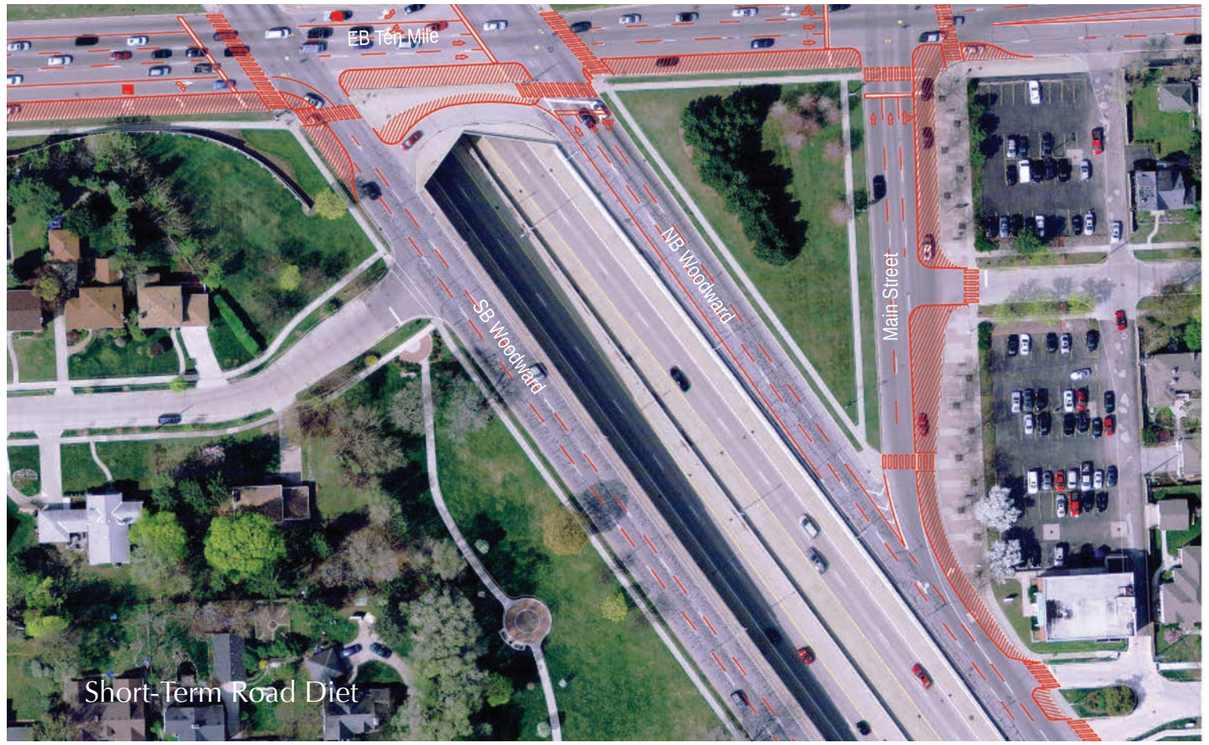
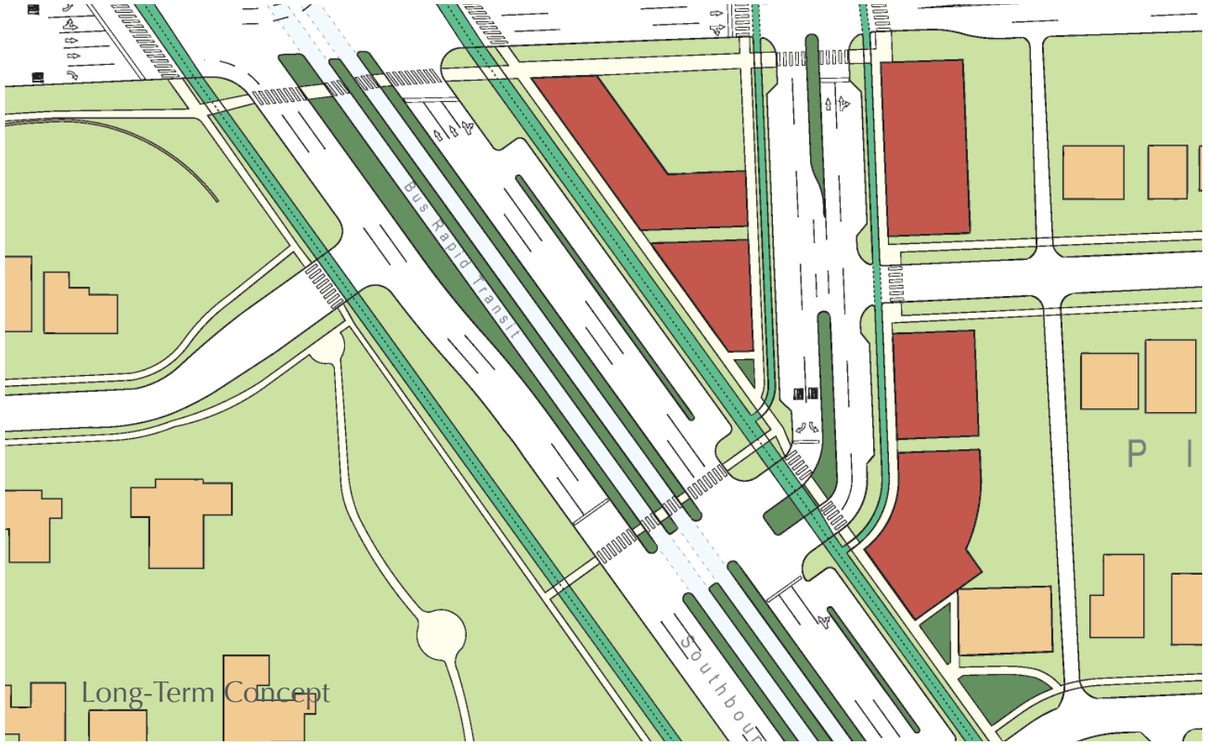


Short-Term Road Diet



Long-Term Concept

Main & Woodward Concept

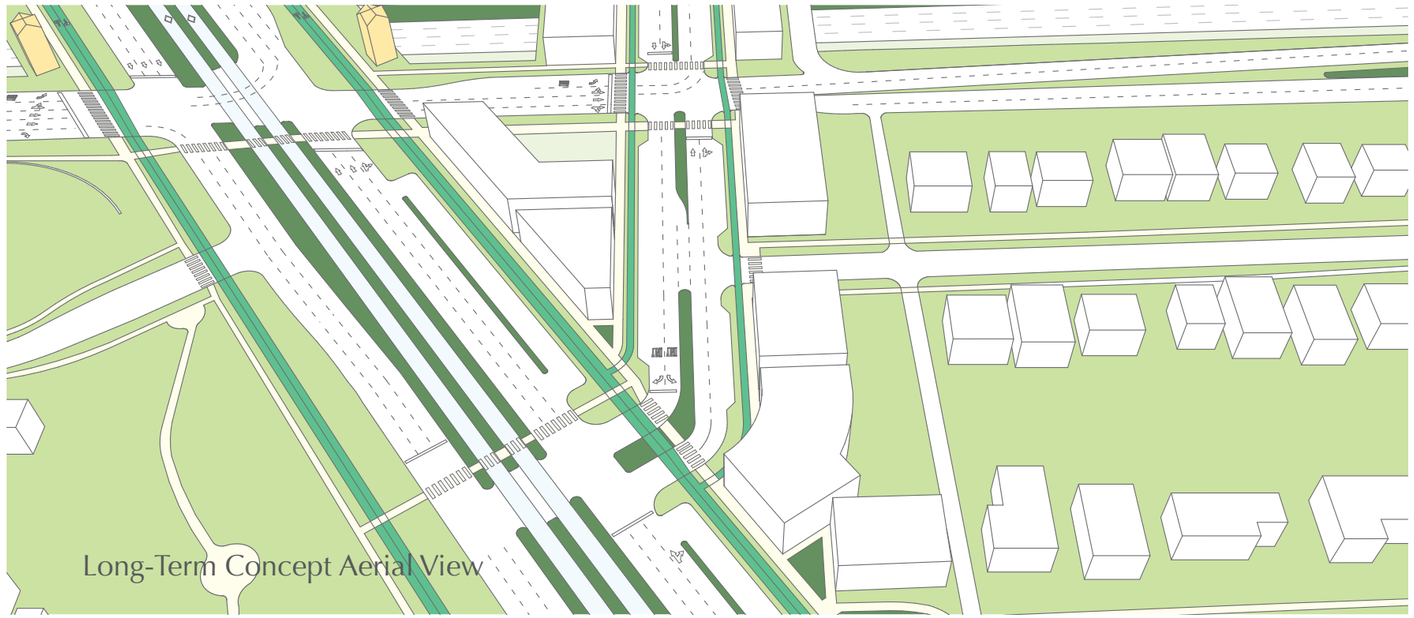
Short-Term Implementation

- Shorten pedestrian crossing distances across Main.
- Reduce dedicated turn-lanes for Woodward onto Main and Main onto EB Ten Mile.
- Reduce southern most through-lane on EB Ten Mile to increase buffer for sidewalk on triangle.
- Tighten turn radius for Woodward traffic turning onto Main.
- Consider screen wall to conceal parking lots east of Main.

Long-Term Concept

- Remove underpass; all Woodward traffic at-grade.
- Two-way traffic on Main extending south from Royal Oak, two travel lanes in each direction and one on-street parking lane on each side of Main. Additional parking may need to be provided in triangle.
- Install signalized intersection at Main and Woodward allowing right-turn from Woodward onto Main, and left-turn from Main onto SB Woodward. Add Woodward pedestrian crossing.
- Two-way cycle track on NB-SB sides of Woodward. Protected one-way bike-lane on NB-SB sides of Main.
- Expand public parking with local access lane on NB Woodward. Add to SB Woodward if necessary.

Key Design Features: maximum 11′ vehicle travel lanes (10′ lanes on Main), minimum 10′ two-way cycle track, minimum 5′ protected bike lane, minimum 6′ sidewalk, maximum 20′ local access lane, minimum 3′ buffer between parking lanes and bike facilities



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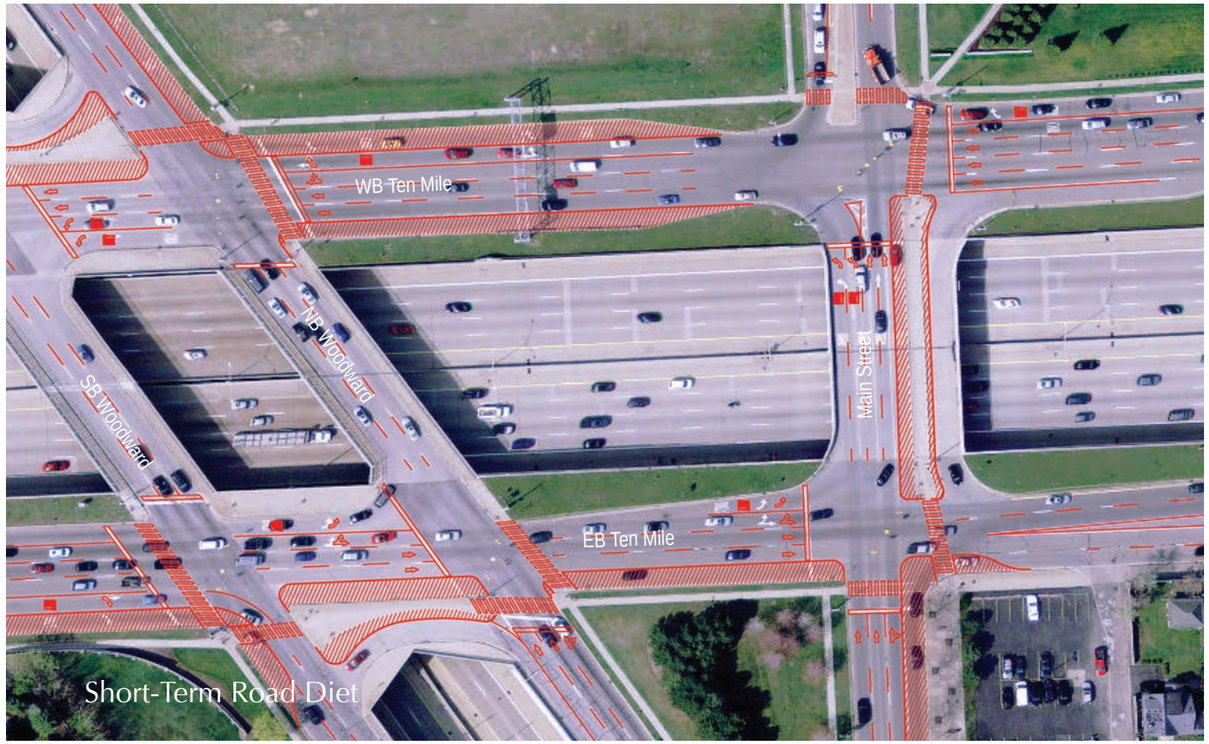
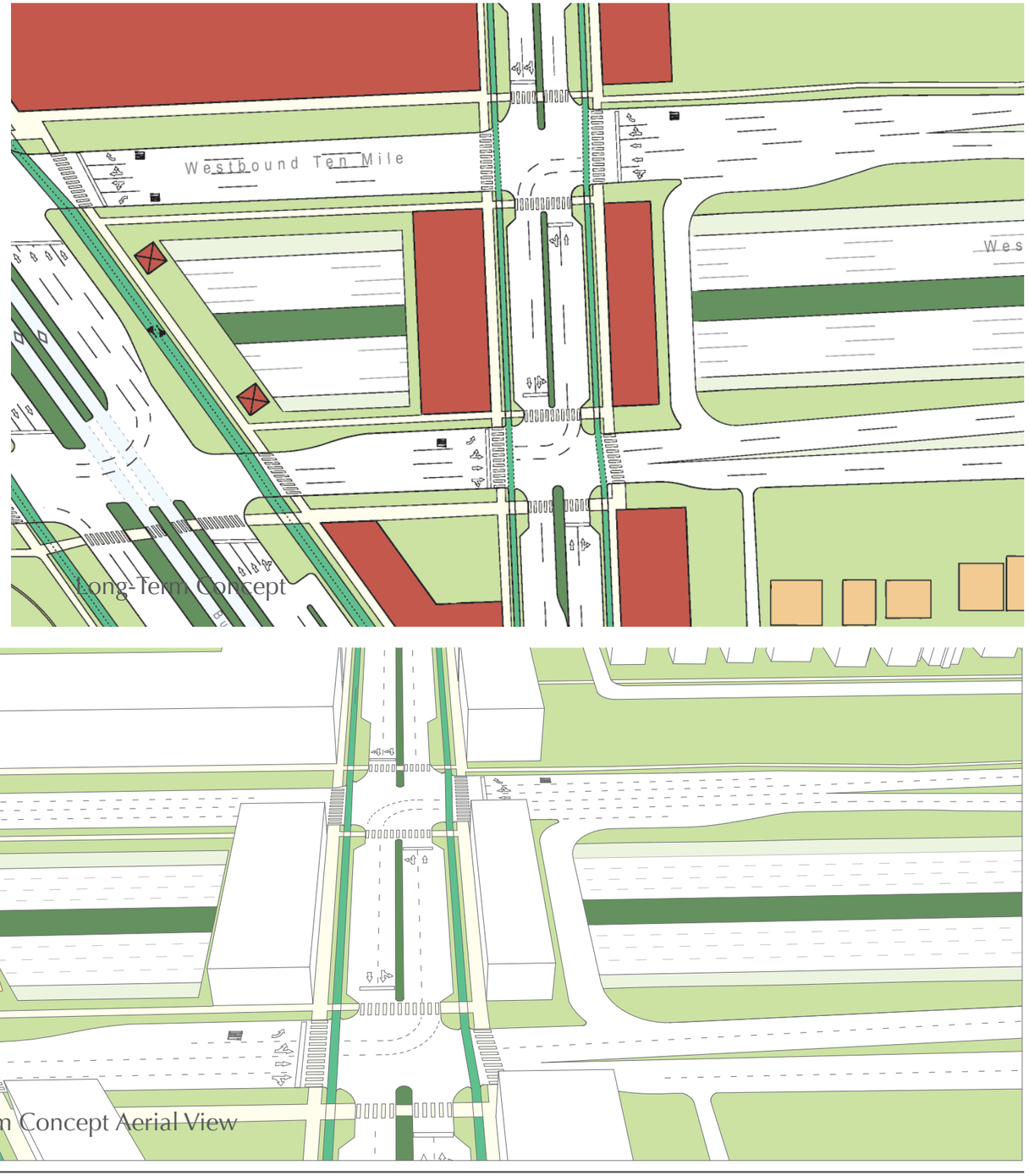


Short-Term Road Diet



Long-Term Concept

Main & Ten Mile (696) Concept

Short-Term Implementation

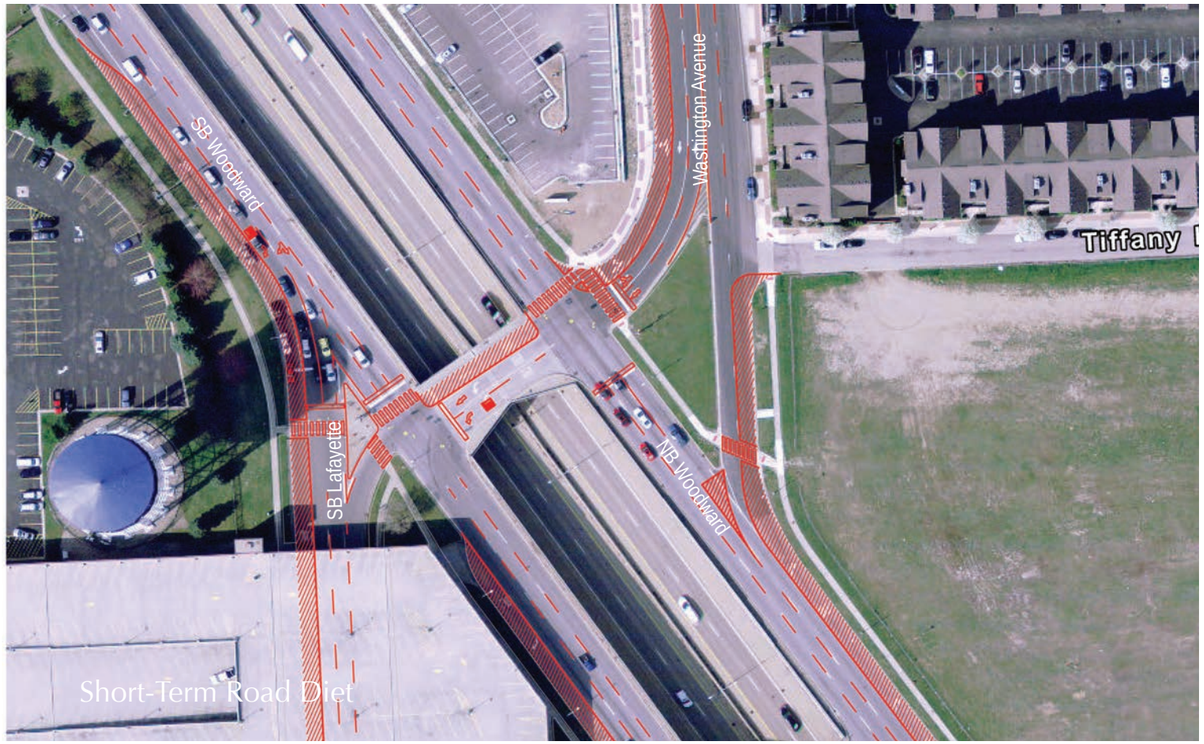
- Shorten pedestrian crossing distances across Main and EB Ten Mile.
- Add buffer around pedestrian island crossing Ten Mile by right-sizing NB Main lanes to 11′ and adjusting turn-around lane size. Saw cut and paint pedestrian islands for improved comfort.
- Install “zebra” pedestrain crossings.

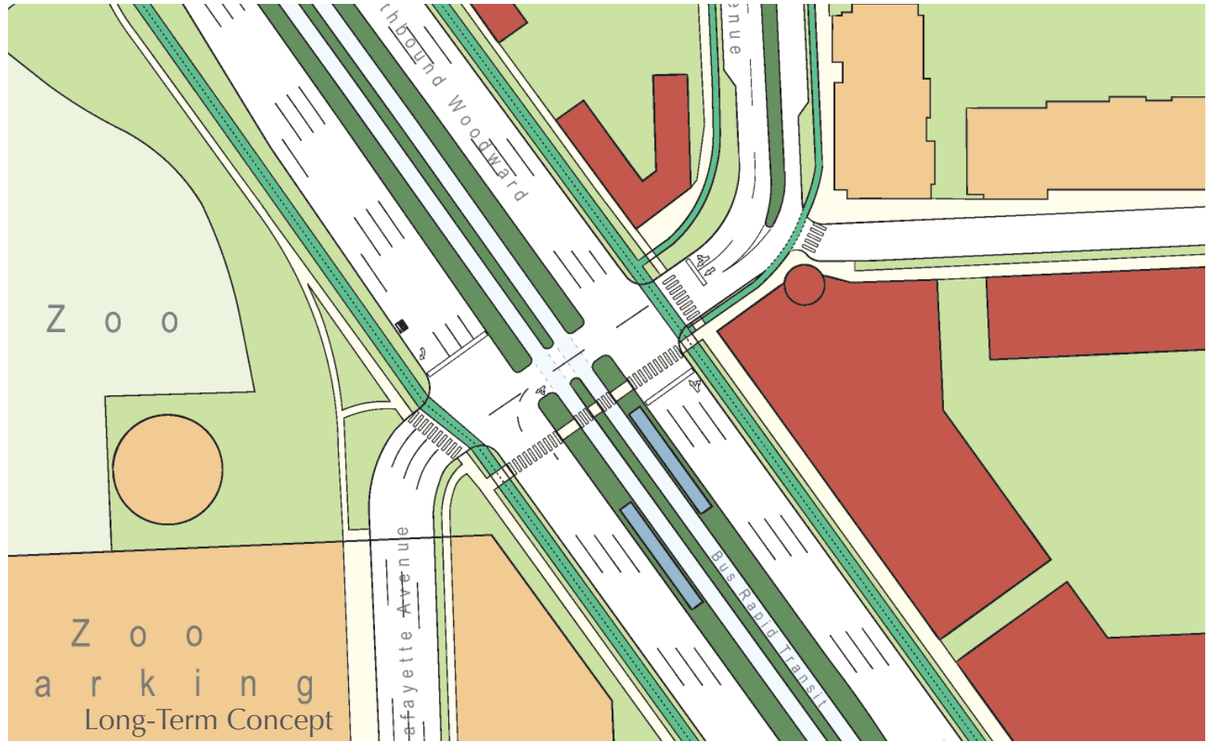
Long-Term Concept

- Remove underpass; all Woodward traffic at-grade.
- Install partial cap or cantilever over 696 to expand pedestrian and bicycle facilities. Develop commercial buildings on each side of the Main cap.
- Two-way traffic on Main extending south from Royal Oak, two travel lanes in each direction and one on-street parking lane on each side of Main. Additional parking may need to be provided behind west commercial building on cap.
- Expand signilized intersection to allow turns onto Main from EB and WB Ten Mile. Allow pedestrian crossing on each side of Main.
- Protected one-way bike-lane on NB-SB sides of Main.

Key Design Features: maximum 10′ lanes on Main, minimum 5′ protected bike lane, minimum 5′ sidewalk, maximum 8′ on-street parking lane, minimum 3′ buffer between parking lane and bike facilities

Long-Term Concept Aerial View





Woodward & Washington/Lafayette Concept

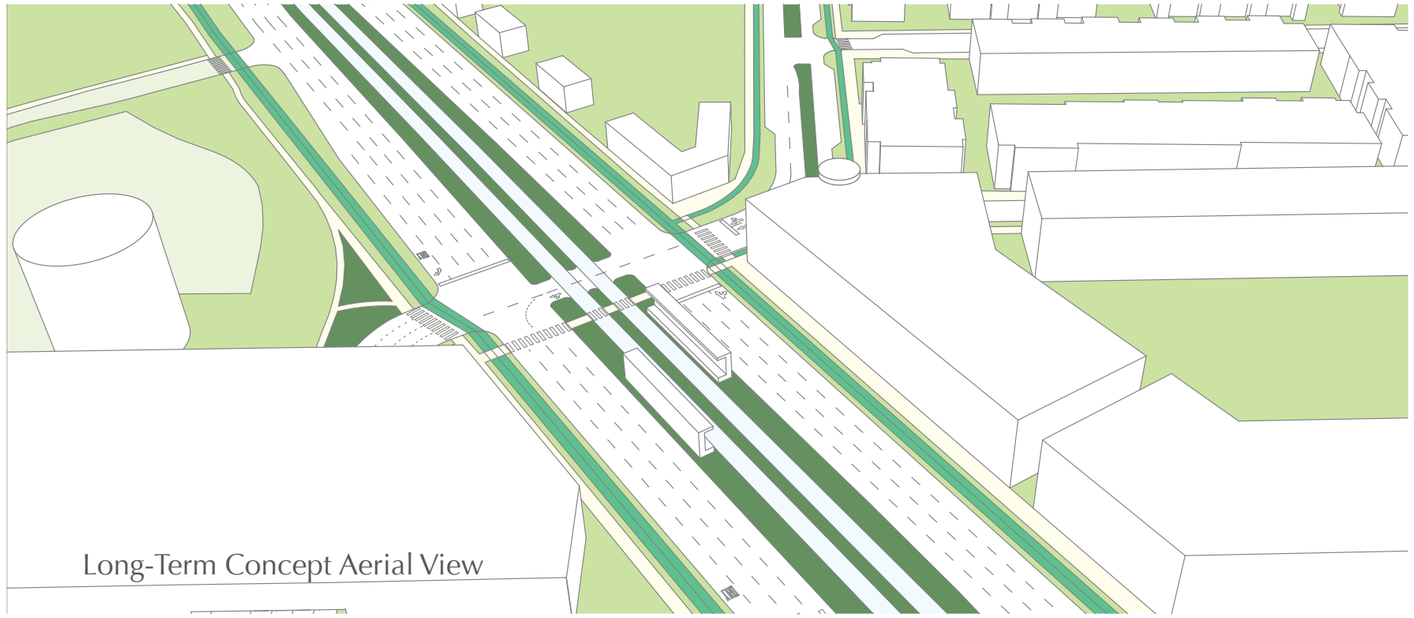
Short-Term Implementation

- Shorten pedestrian crossing distances across NB Washington, SB Washington and SB Lafayette by removing dedicated turn lanes.
- Add buffer along Woodward pedestrian crossing by reducing to two through-lanes moving from Washington to Lafayette. Saw cut and paint pedestrian sidewalk for improved comfort.
- Install “zebra” pedestrain crossings.

Long-Term Concept

- Remove underpass; all Woodward traffic at-grade.
- Remove all dedicated turn lanes onto NB Washington and SB Lafayette, install right-turns from Woodward to Washington and Woodward to Lafayette. Lane configuration may change if BRT route extends to Wash.
- Reduce Washington to one lane in each direction with one on-street parking lane on each side of Washington. Use excess right-of-way to install boulevard, turn lane or local BRT lane.
- Center-running bus rapid transit lanes in median. BRT station in median south of Washington.
- Two-way cycle track on NB-SB sides of Woodward. Protected one-way bike-lane on NB-SB sides of Wash.

Key Design Features: maximum 11′ lanes (10′ on Washington), minimum 10′ two-way cycle track, minimum 5′ protected bike lane, minimum 5′ sidewalk, maximum 8′ on-street parking lane, minimum 3′ buffer between parking lane and bike facilities, 10′-11′ bus rapid transit lane



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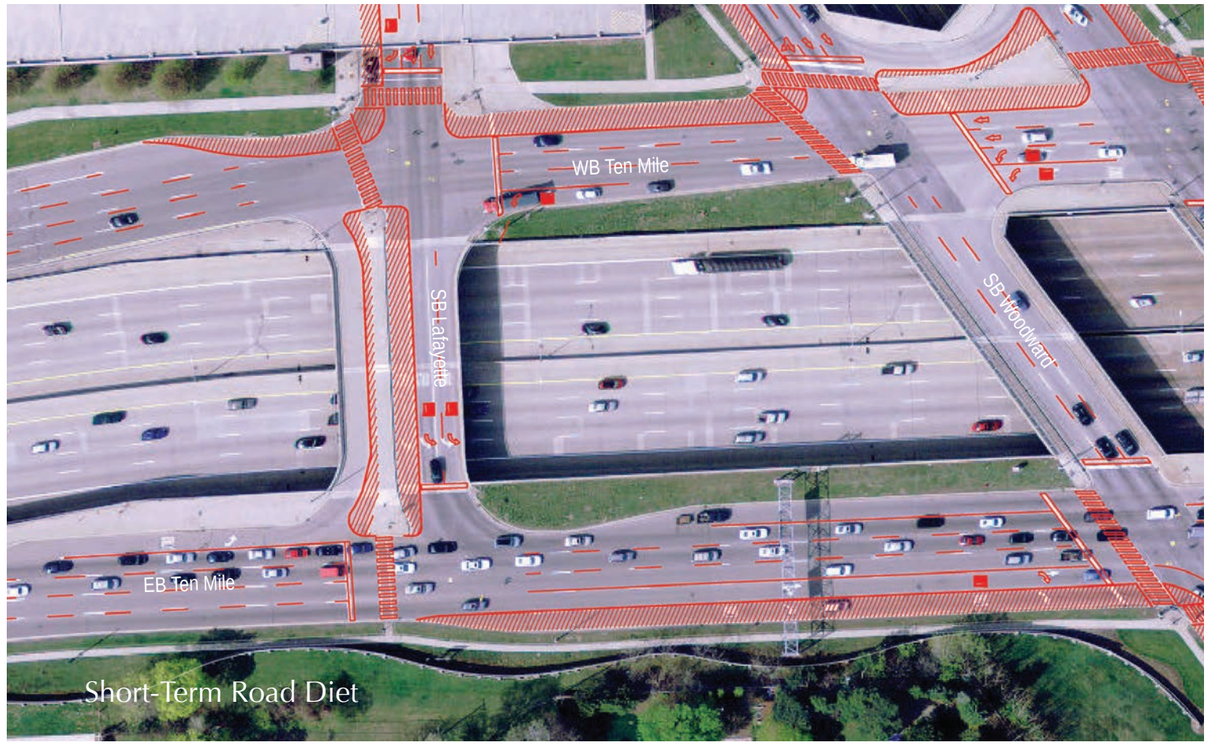
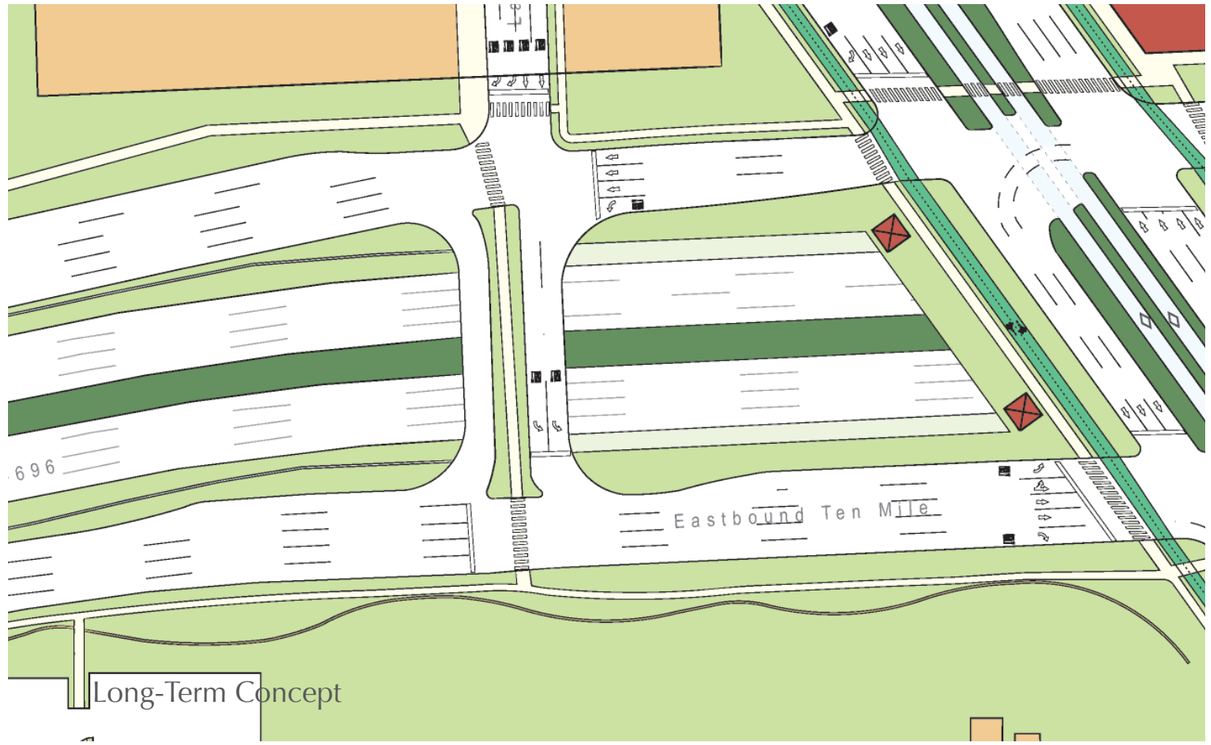


Short-Term Road Diet



Long-Term Concept

Lafayette & 10 Mile (696) Concept

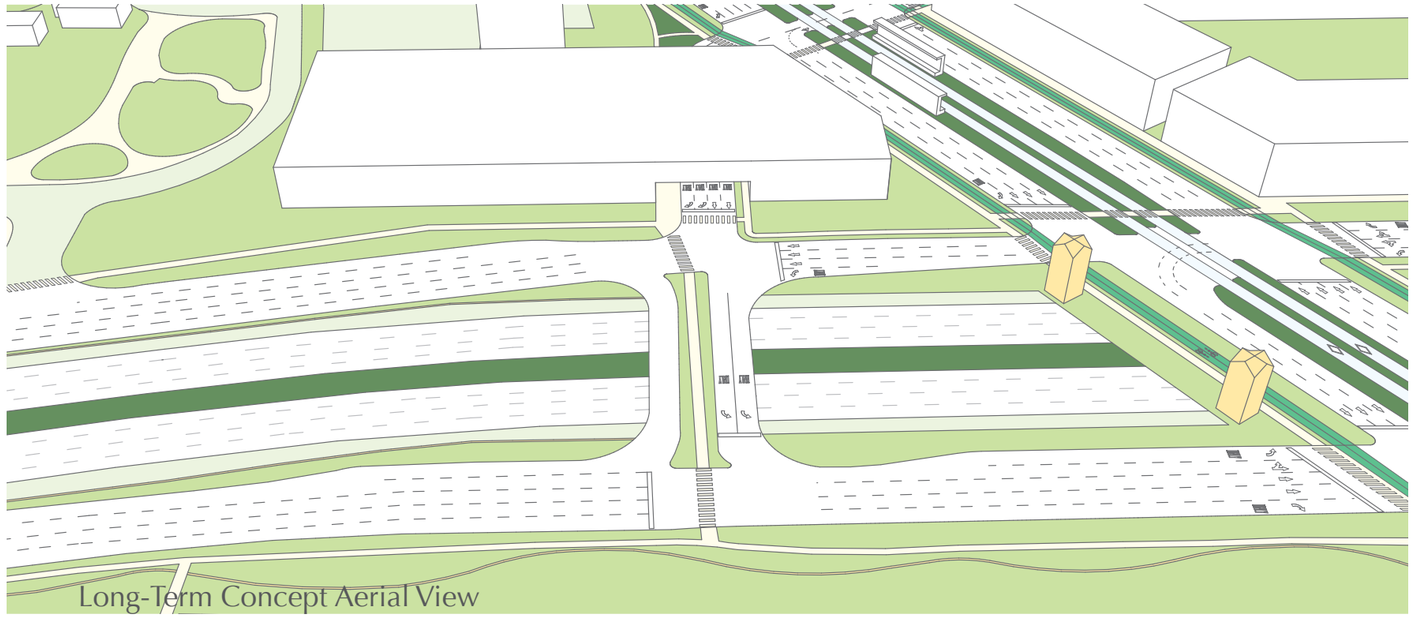
Short-Term Implementation

- Shorten pedestrian crossing distances across WB Ten Mile, EB Washington and SB Woodward by removing dedicated turn lanes and tightening curb radii.
- Add buffer along Ten Mile pedestrian crossing by reducing to two through-lanes moving from Lafayette to EB Ten Mile. Saw cut and paint pedestrian island for improved comfort.
- Install “zebra” pedestrain crossings.

Long-Term Concept

- Remove underpass; all Woodward traffic at-grade.
- Expand Ten Mile pedestrian crossing and plant or color for improved comfort.
- Tighten curb radii from SB Woodward and SB Lafayette to WB Ten Mile.
- Install pedestrian access through Ten Mile sound wall at Ridge Road.

Key Design Features: maximum 11′ lanes, minimum 10′ two-way cycle track, minimum 5′ sidewalk, minimum 3′ buffer between parking lane and bike facilities,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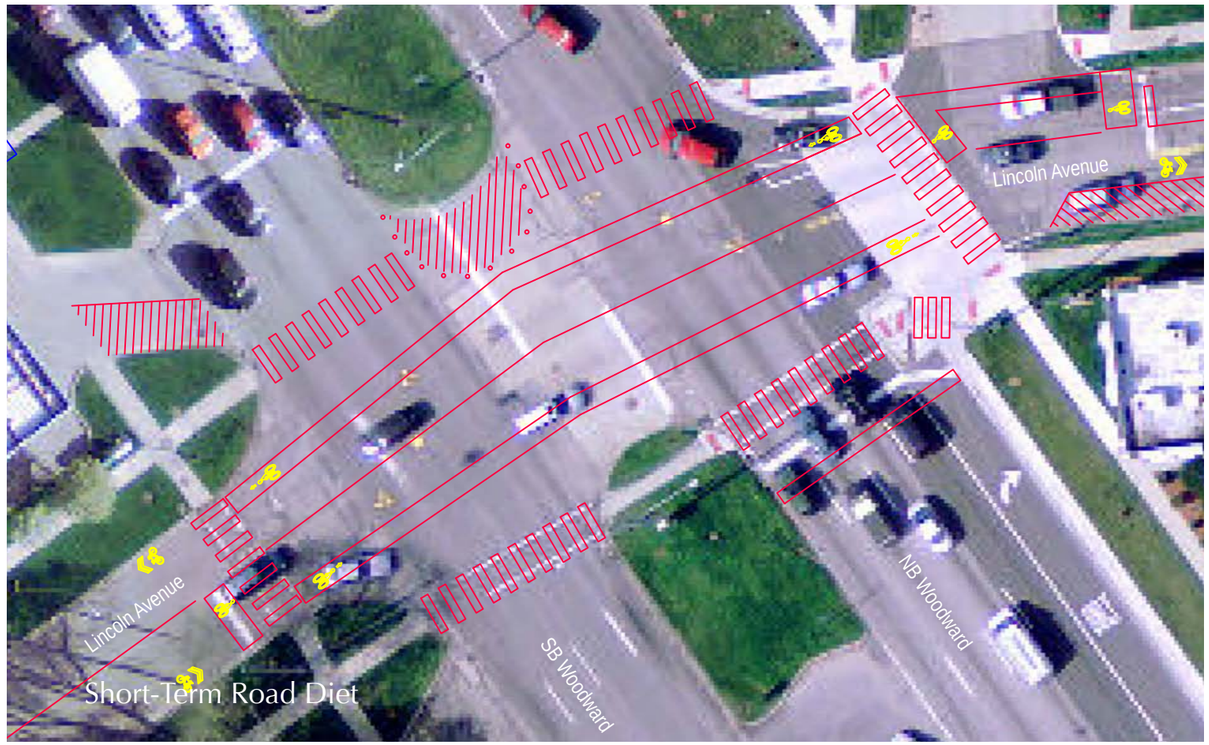
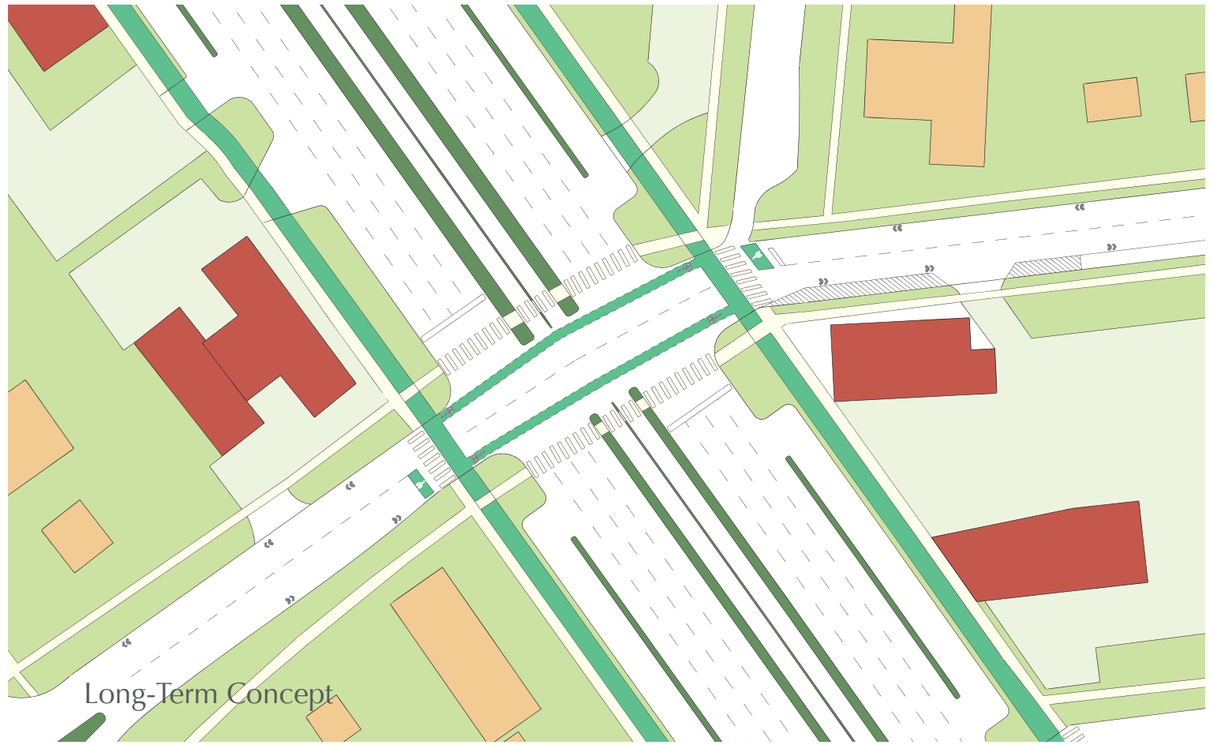


Short-Term Road Diet


Long-Term Concept

Woodward & Lincoln Concept

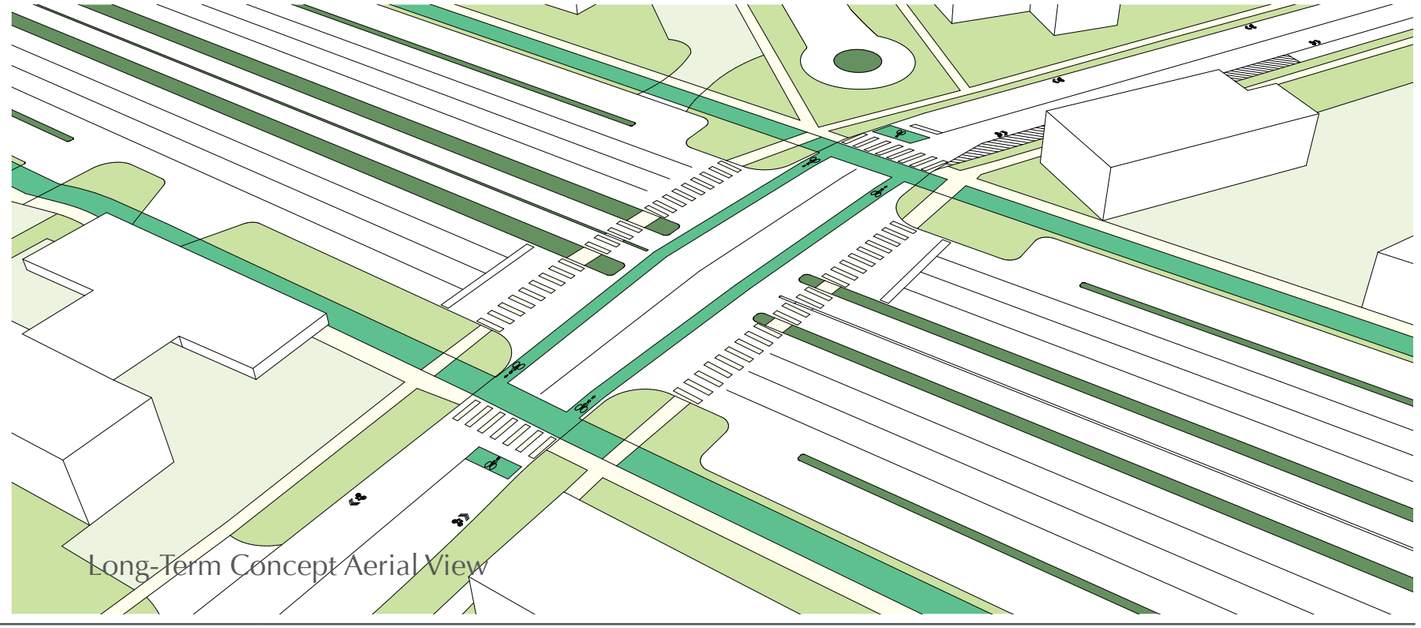
Short-Term Implementation

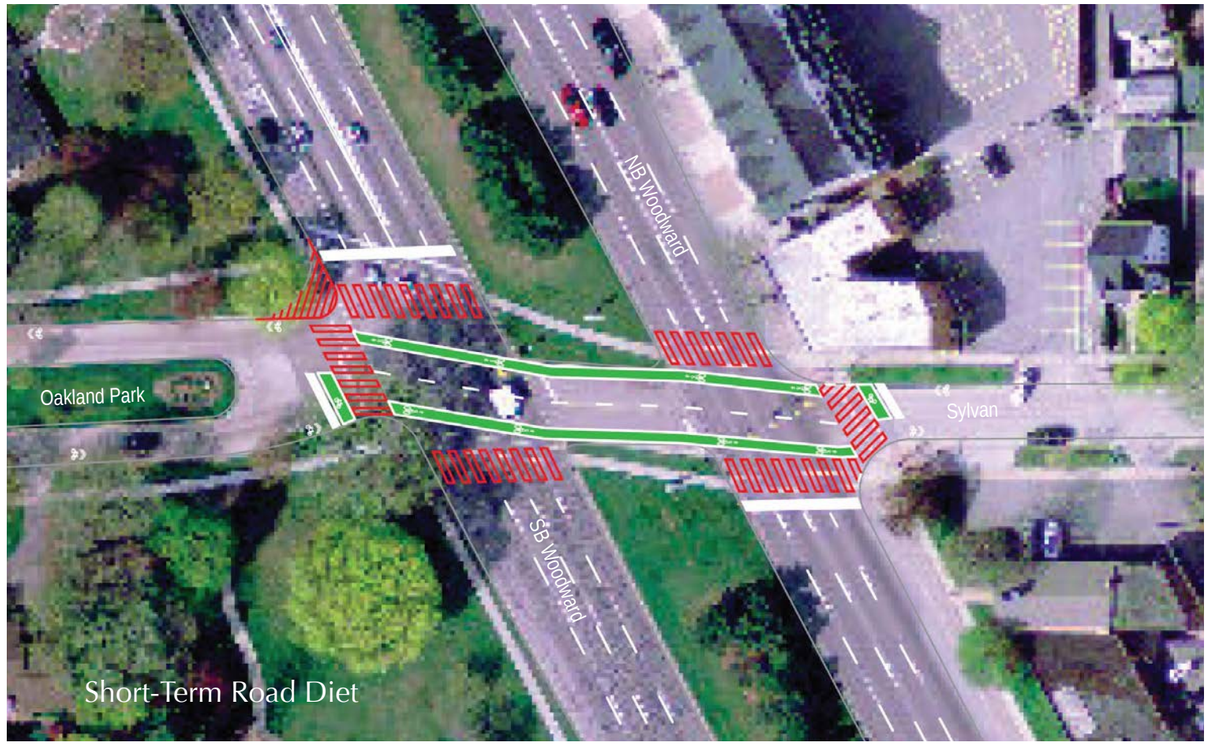
- Make pedestrian crossing more direct by extending north boulevard.
- Add bicycle box at signal and provisional bike-lane through intersection. Add sharrow markings to Lincoln.
- Reduce gas station curb cut to avoid pedestrian conflict with exiting vehicles.
- Move stop line south on NB side of Woodward to improve visibility of pedestrians in crosswalk.
- Revise signage before the underpass entrance to better describe local and express routes.
- Add public sidewalk for access from Huntington Road to SB Woodward (Zoo & Huntington Woods).

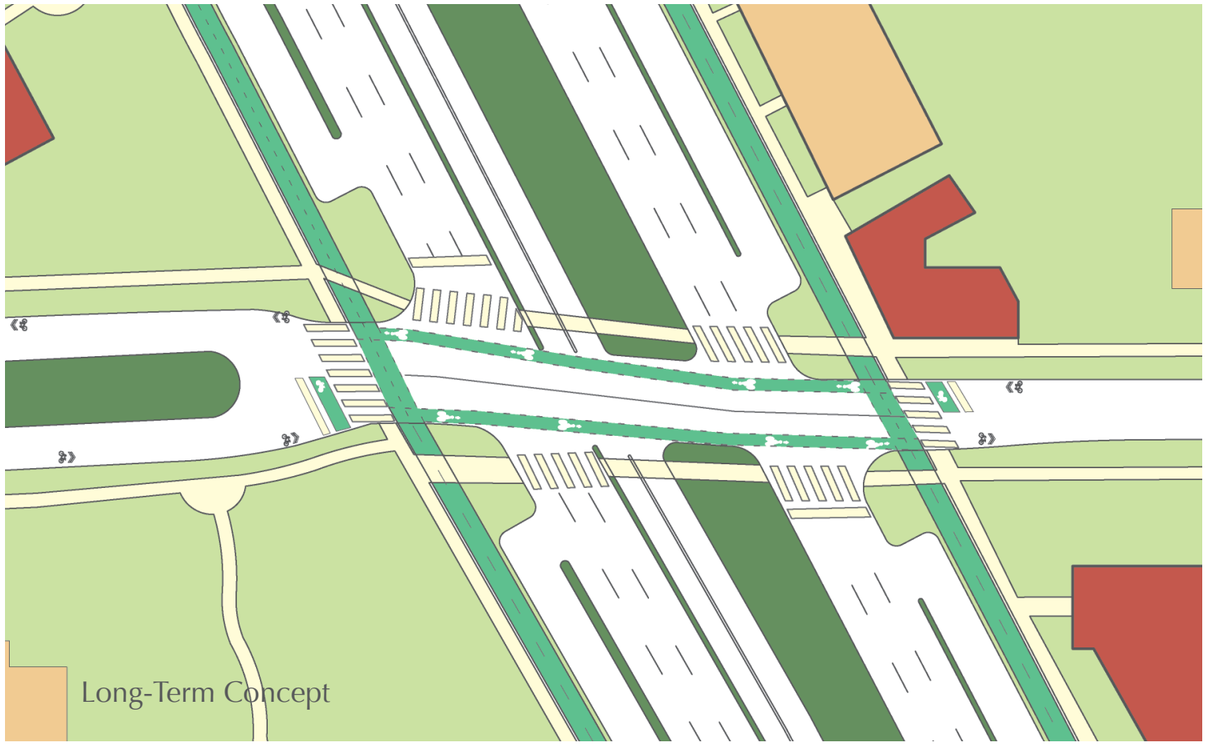
Long-Term Concept

- Four lanes of Woodward traffic in each direction. Local acess lane on NB-SB sides of Woodward.
- Two-way cycle track on NB-SB sides of Woodward.
- Remove southern gas station curb cut.
- Center-running bus rapid transit lanes in median.
- Remove redundant curb cuts or consolidate curb cuts through shared-access agreements.
- Close through access to Hendrie by installing a cul-de-sac. Access still available at 6th Street.

Key Design Features: maximum 11′ lanes (10′ on Lincoln), minimum 8′ two-way cycle track, minimum 5′ sidewalk, minimum 3′ buffer between parking lane and bike facilities, sharrow markings along Lincoln, minimum 5′ provisional bike lane crossing Woodward


Long-Term Concept Aerial View





Woodward & Oakland Park/Sylvan Concept

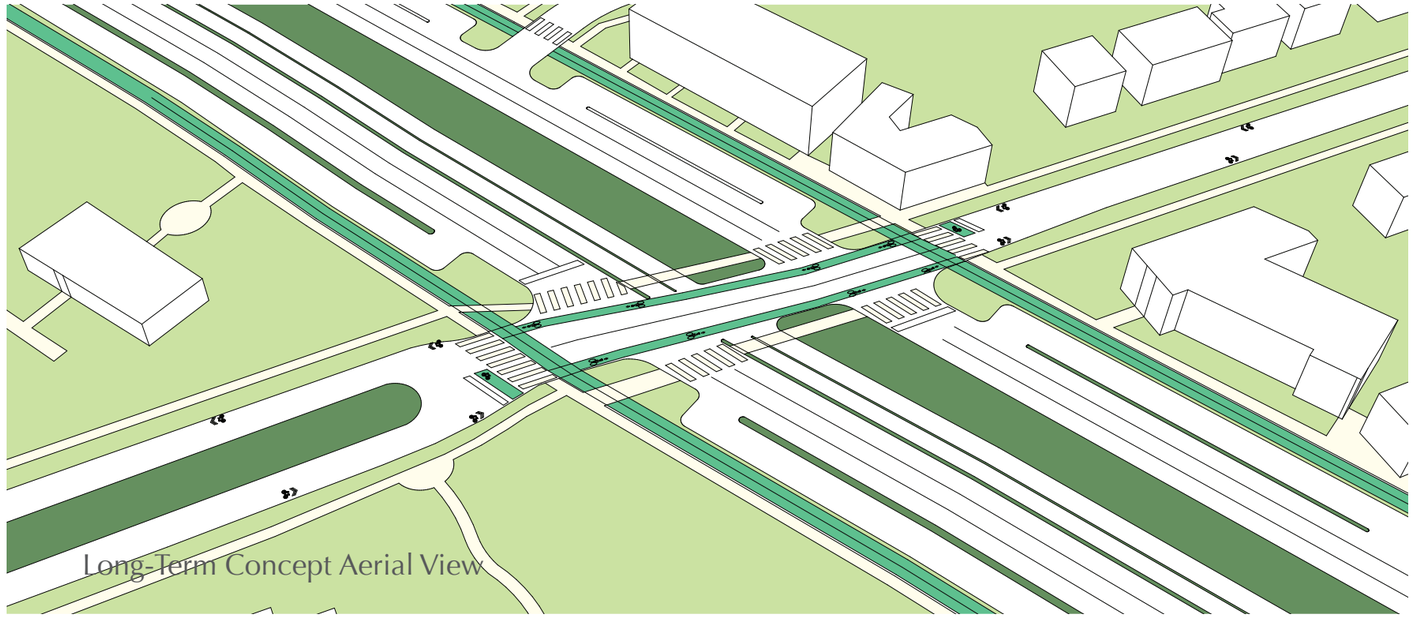
Short-Term Implementation

- Make pedestrian crossing more direct by reducing curb radius at SB Woodward and Oakland Park.
- Add bicycle box at signal and provisional bike-lane through intersection. Add sharrow markings or bike route signage to Oakland Park and Sylvan.
- Install wide, “zebra” crosswalks and move vehicle stop lines to improve pedestrian visibility.

Long-Term Concept

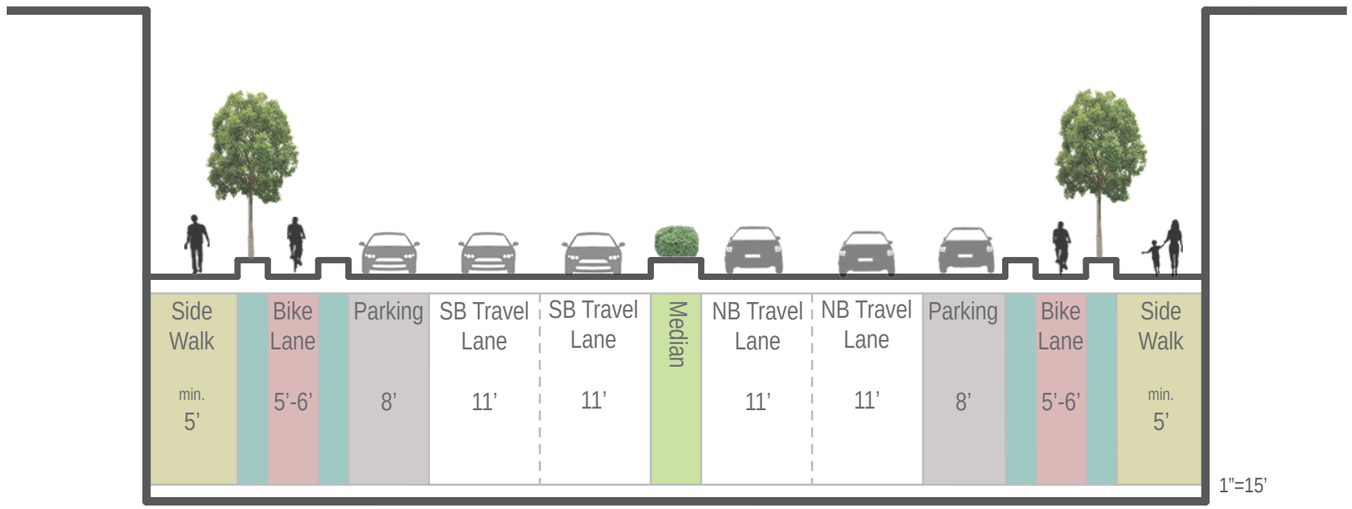
- Three lanes of Woodward traffic in each direction. Local acess lane on NB-SB sides of Woodward.
- Two-way cycle track on NB-SB sides of Woodward.
- West-edge running bus rapid transit lanes in median to preserve existing trees.
- Redesign residential street intersections with Woodward to tighten curb radii and create 90° turns for improved pedestrian visibility.
- Realign Oakland Park with Sylvan if existing tree dies.

Key Design Features: maximum 11′ lanes, minimum 8′ two-way cycle track, minimum 5′ sidewalk, minimum 3′ buffer between parking lane and bike facilities, sharrow markings along Oakland Park/Sylvan, minimum 5′ provisional bike lane crossing Woodward

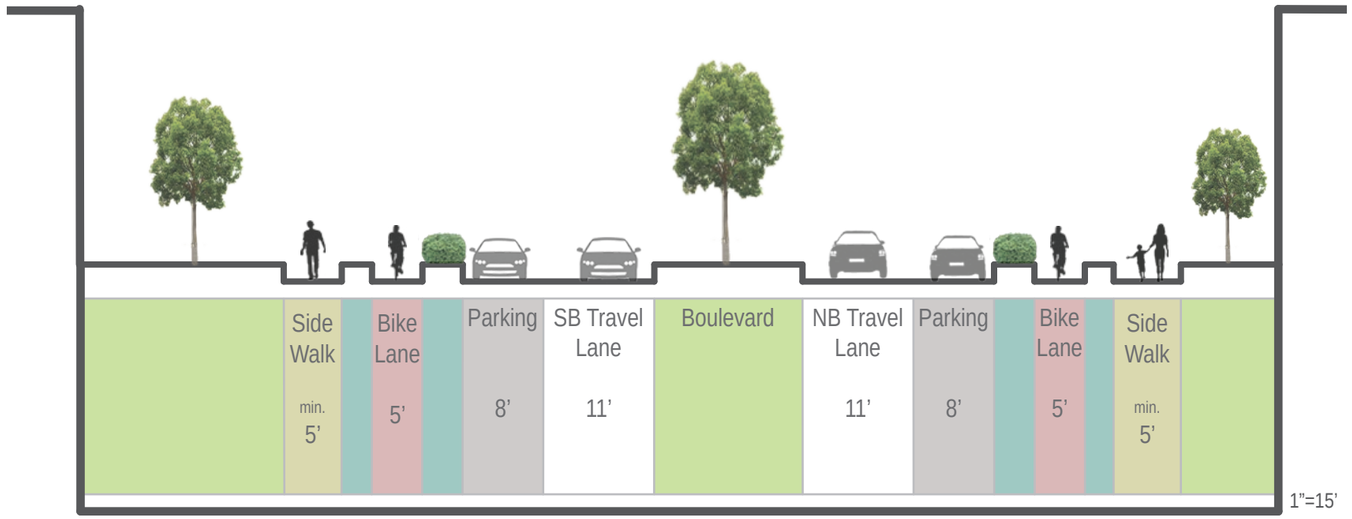


Main, Ridge & Washington Cross-Sections

Main Street (Pleasant Ridge & Royal Oak)

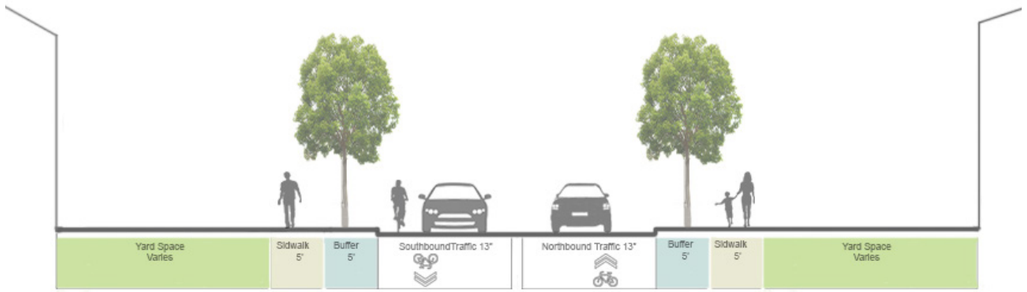


Washington Avenue (Royal Oak)



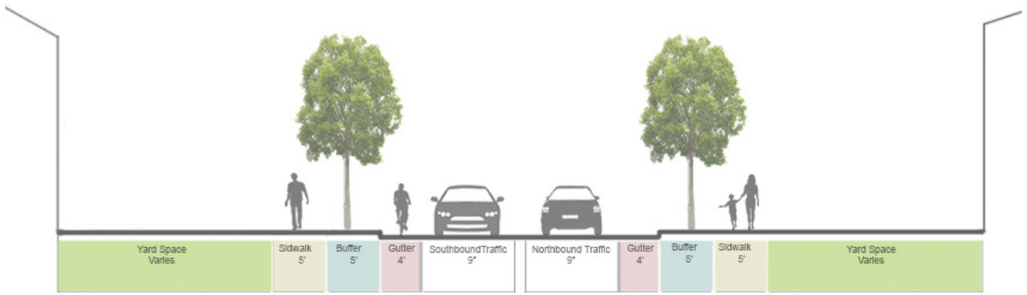
Dimensions are suggested and subject to municipal, county and state engineering review. Buffer widths should be a minimum of 3 feet and may be adjusted as necessary. Existing street trees should be accomodated to the extent possible.

Ridge Road (Pleasant Ridge)



* Not to scale

Sharrow Marking in Existing Lane



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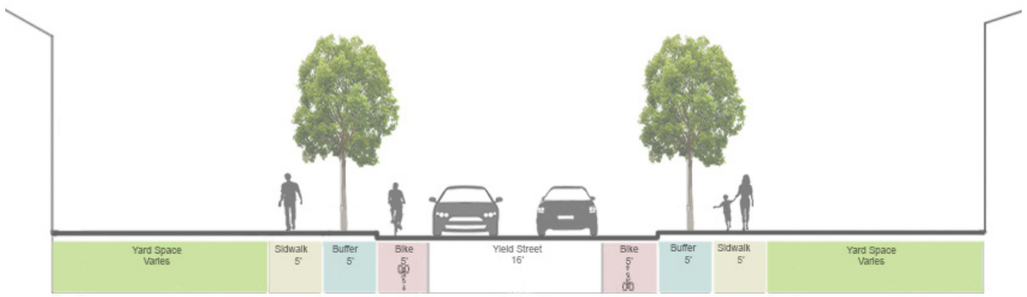
Provisional 4′ Bike Lane



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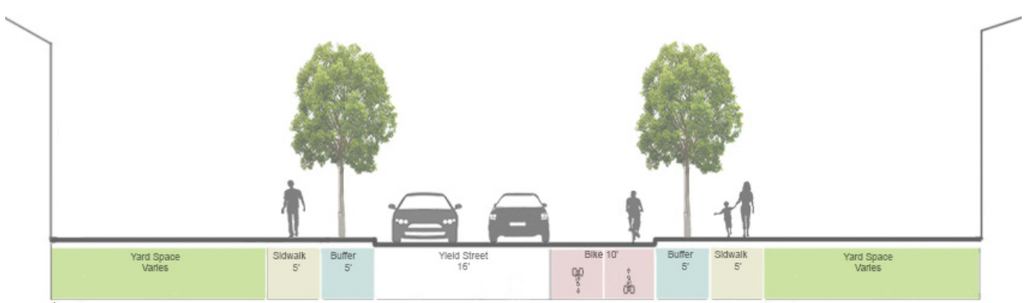
5′ Bike Lane



* Not to scale

Two-Way 8′ Bike Lane

Limits of Study: The images and recommendations illustrated on page are conceptual artist renderings for general discussion and planning purposes only. Further research, planning, design, engineering and permitting are required PRIOR to implementing any pedestrian, bicycle, streetscape, signage, landscaping or street modifications.

City of Pleasant Ridge
Ordinance No. 413

AN ORDINANCE TO AMEND THE PLEASANT RIDGE CODE OF ORDINANCES, TO ADD A NEW SECTION 62-1 COMPLETE STREETS.

THE CITY OF PLEASANT RIDGE ORDAINS THAT THE PLEASANT RIDGE CITY CODE IS HEREBY AMENDED TO ADD A NEW SECTION NUMBERED 62-1, WHICH SAID SECTION READS AS FOLLOWS:

Section 1.

Section 62-1 – Complete Streets

The City of Pleasant Ridge will plan for, design, and construct all transportation improvement projects to provide appropriate accommodation for bicyclists, pedestrians, transit users, and persons of all ages and abilities in accordance with the City of Pleasant Ridge Complete Streets Plan, as funding priorities permit. This Section 61-1 and the Pleasant Ridge Complete Streets Plan shall serve as the City's complete streets policy pursuant to MCL 247.660p.

(a) Definitions.

"Complete Streets" means 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.

(b) The City of Pleasant Ridge Complete Streets Plan shall be referenced and its implementation considered prior to construction or reconstruction within city rights-of-way.

(c) The Complete Streets Plan will include, at a minimum, accommodations for bicycle routes, lanes, and paths; sidewalks and pedestrian paths; best practices for crossing pedestrians and bicycles at both intersections and mid-block locations; transit facilities; and related safety improvements and amenities. In developing the plan consideration will be given to existing non-motorized transportation facilities, potential non-motorized travel patterns, implementation and maintenance cost versus potential use, the public safety of both street users and abutting property owners, and funding priorities over a 6-year horizon. The City will look for opportunities to incorporate principles of complete streets and maximize walkable and bikeable streets within the City of Pleasant Ridge in conjunction with all public works projects, as appropriate.

(d) Complete streets shall be designed and built in substantial conformance to the latest guidelines published by the American Association of State Highway Transportation Officials (AASHTO), the National Association of City Transportation Officials (NACTO), Institute of Transportation Engineers (ITE), the Michigan Department of Transportation (MDOT), and the U.S. Department of Justice (relative to the Americans with Disabilities Act of 1990).

(e) It will be a goal of the city to fund the implementation of the non-motorized transportation plan, which shall include expending State Act 51 funds received by the city annually in accordance with Public Act 135 of 2010, as amended.

(f) Exceptions. Complete streets improvements may be excepted in cases where the cost to complete such improvements would be excessively disproportionate to the need or potential use, where the project segment would not result in a meaningful addition to the non-motorized network, or where the project is due to an emergency that requires nearterm action.

Section 2. Severability – This ordinance and each article, section, subsection, paragraph, subparagraph, part, provision, sentence, word and portion thereof are hereby declared to be severable, and if they or any of them are declared to be invalid or unenforceable for any reason by a court of competent jurisdiction, it is hereby provided that the remainder of this ordinance shall not be affected thereby.

Section 3. Repeal and Effective Date

Repeal – All regulatory provisions contained in other City ordinances which are inconsistent with the provisions of this ordinance are hereby repealed.

Effective Date - This Ordinance shall be effective fifteen days after enactment and upon publication.

Certificate

I hereby certify that the foregoing ordinance was adopted by the City Commission of the City of Pleasant Ridge at a meeting thereof on July 14, 2015

_____

Amy M. Drealan, Clerk
City of Pleasant Ridge

City Commission Introduction: ..... Tuesday, June 9, 2015
City Commission Public Hearing: .....Tuesday, July 14, 2015
City Commission Adoption: .....Tuesday, July 14, 2015
Published: .....Sunday, July 19, 2015
Effective: .....Wednesday, July 29, 2015

City of Pleasant Ridge

James Breuckman, City Manager

From: Jim Breuckman, City Manager

To: Planning Commission

Date: July 23, 2015

Re: Traffic Calming Pilot Projects Overview

Overview

The City is preparing to undertake traffic calming pilot projects on Ridge Road and in the alley between Kensington and Devonshire.

Background

Staff will provide an update on proposed traffic calming pilot projects at the July 27 meeting. Attached is to this memo is the following background information:

1. Pages from the NACTO Urban Street Design Guide
2. A summary of Ridge Road traffic and speed counts from last fall
3. A summary of key traffic statistics from surveyed streets

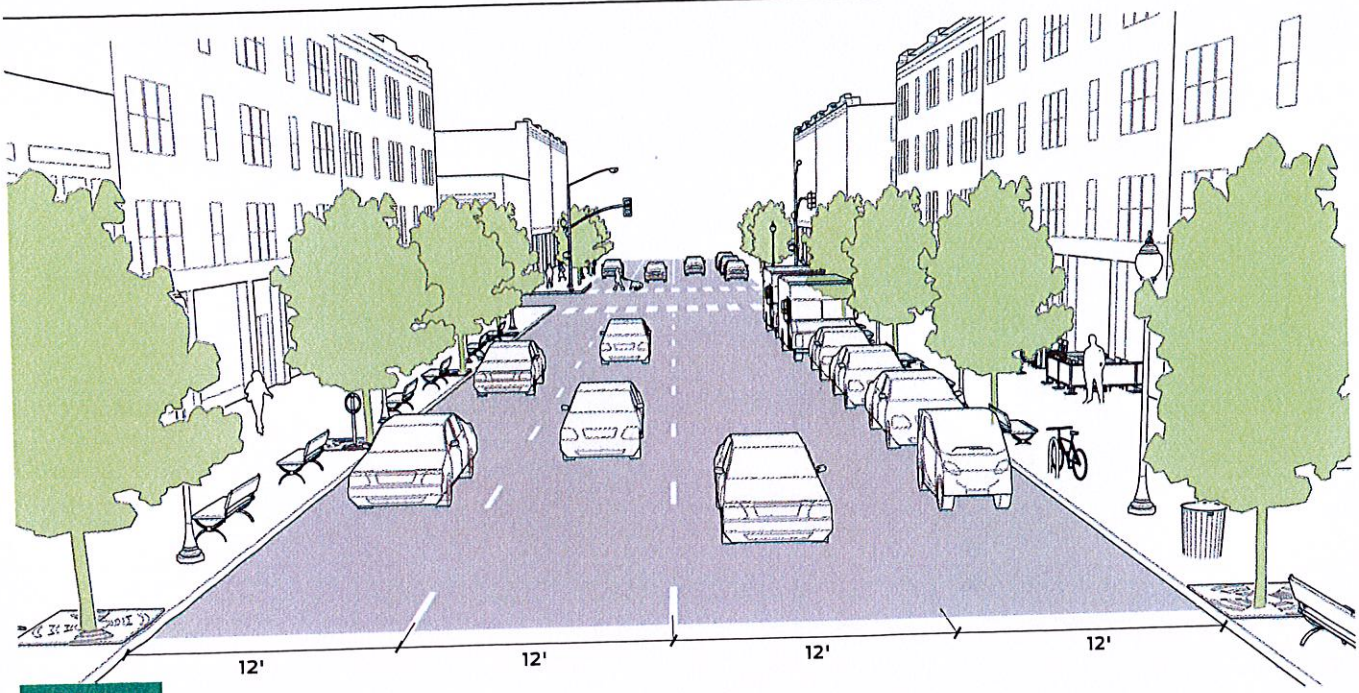
I am preparing a presentation on proposed traffic calming projects that we can test on Ridge Road, which we will review on Monday.

Requested Action

No requested action at this time.

Lane Width

The width allocated to lanes for motorists, buses, trucks, bikes, and parked cars is a sensitive and crucial aspect of street design. Lane widths should be considered within the assemblage of a given street delineating space to serve all needs, including travel lanes, safety islands, bike lanes, and sidewalks. Each lane width discussion should be informed by an understanding of the goals for traffic calming as well as making adequate space for larger vehicles, such as trucks and buses.



Existing

Travel lanes are striped to define the intended path of travel for vehicles along a corridor. Historically, wider travel lanes (11–13 feet) have been favored to create a more forgiving buffer to drivers, especially in high-speed environments where narrow lanes may feel uncomfortable or increase potential for side-swipe collisions.

Lane widths less than 12 feet have also historically been assumed to decrease traffic flow and capacity, a claim new research refutes.[1]

DISCUSSION

The relationship between lane widths and vehicle speed is complicated by many factors, including time of day, the amount of traffic present, and even the age of the driver. Narrower streets help promote slower driving speeds. which in turn reduce the severity of crashes. Narrower streets have other benefits as well, including reduced crossing distances, shorter signal cycles, less stormwater, and less construction material to build.

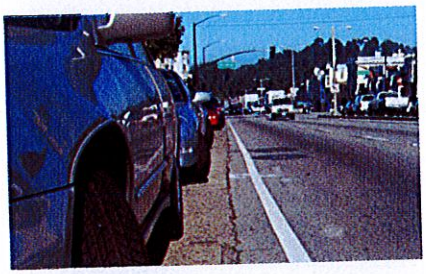
Lane widths of 10 feet are appropriate in urban areas and have a positive impact on a street's safety without impacting traffic operations. For designated truck or transit routes, one travel lane of 11 feet may be used in each direction. In select cases, narrower travel lanes (9–9.5 feet) can be effective as through lanes in conjunction with a turn lane.[2]

RECOMMENDED

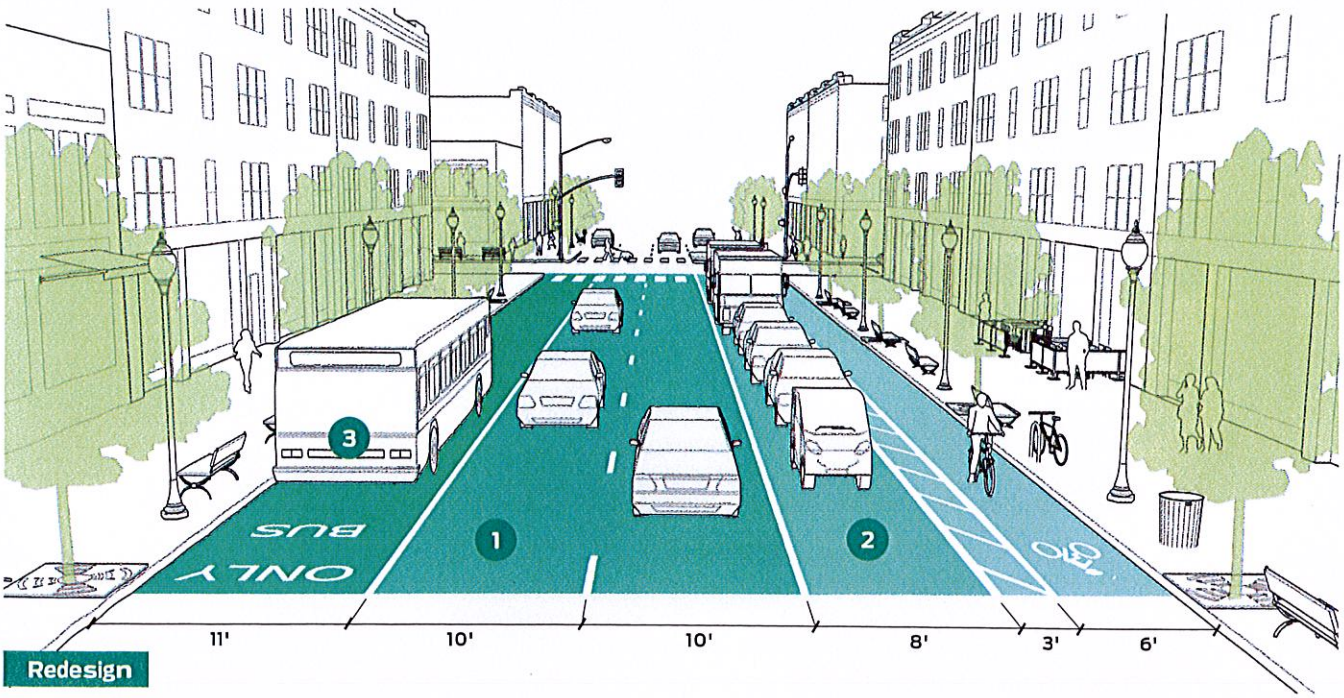
Lanes greater than 11 feet should not be used as they may cause unintended speeding and assume valuable right-of-way at the expense of other modes.

Restrictive policies that favor the use of wider travel lanes have no place in constrained urban settings, where every foot counts. Research has shown that narrower lane widths can effectively manage speeds without decreasing safety and that wider lanes do not correlate to safer streets.[3] Moreover, wider travel lanes also increase exposure and crossing distance for pedestrians at intersections and midblock crossings.[4]

Use striping to channelize traffic, demarcate the road for other uses, and minimize lane width.



SAN FRANCISCO, CA
Striping should be used to delineate parking and curbside uses from the travel lane.



Redesign

1 Lane width should be considered within the overall assemblage of the street. Travel lane widths of 10 feet generally provide adequate safety in urban settings while discouraging speeding. Cities may choose to use 11-foot lanes on designated truck and bus routes (one 11-foot lane per direction) or adjacent to lanes in the opposing direction.

Additional lane width may also be necessary for receiving lanes at turning locations with tight curves, as vehicles take up more horizontal space at a curve than a straightaway.

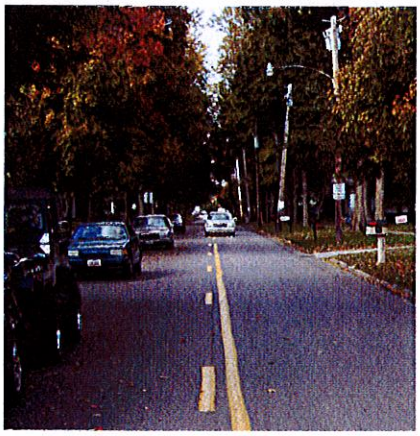
Wide lanes and offsets to medians are not required but may be beneficial and necessary from a safety point of view.

OPTIONAL

2 Parking lane widths of 7–9 feet are generally recommended. Cities are encouraged to demarcate the parking lane to indicate to drivers how close they are to parked cars. In certain cases, especially where loading and double parking are present, wide parking lanes (up to 15 feet) may be used. Wide parking lanes can serve multiple functions, including as industrial loading zones or as an interim space for bicyclists.

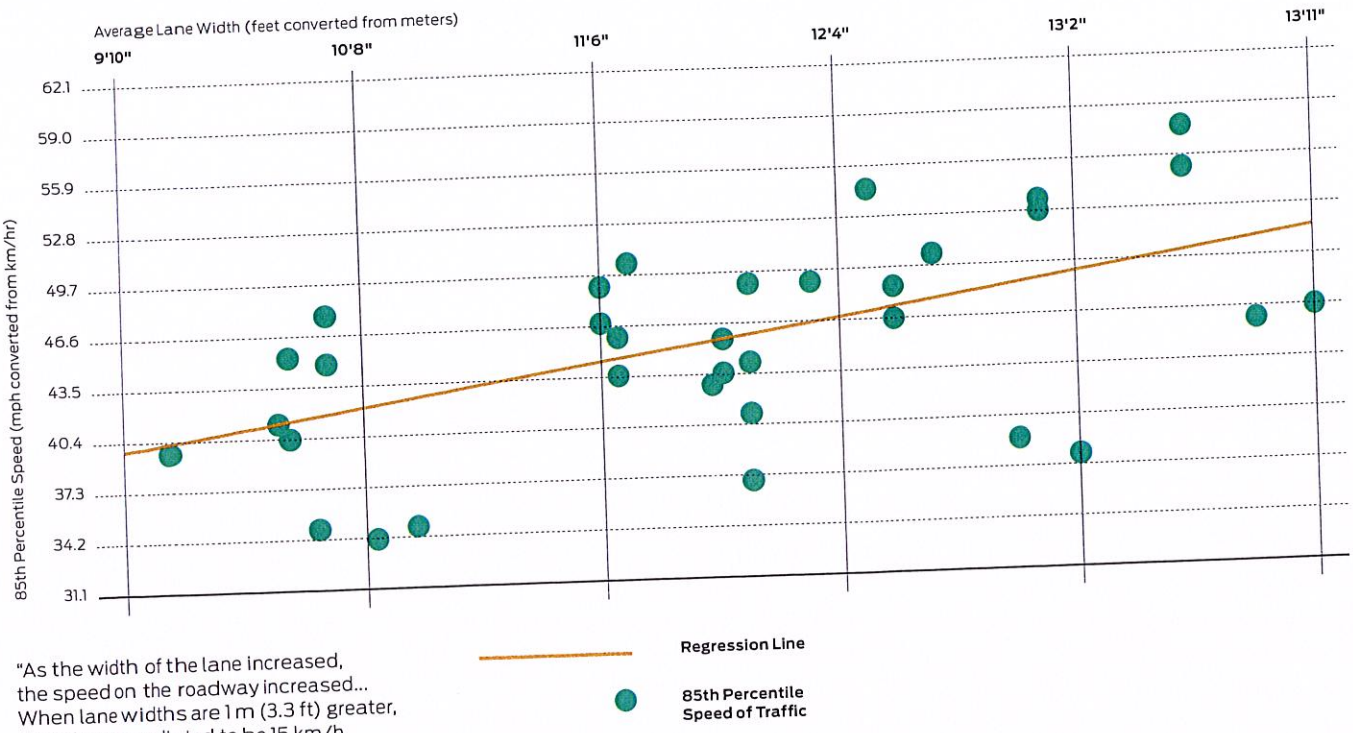
3 For multilane roadways where transit or freight vehicles are present and require a wider travel lane, the wider lane should be the outside lane (curbside or next to parking). Inside lanes should continue to be designed at the minimum possible width. Major truck or transit routes through urban areas may require the use of wider lane widths.

2-way streets with low or medium volumes of traffic may benefit from the use of a dashed center line with narrow lane widths or no center line at all. In such instances, a city may be able to allocate additional right-of-way to bicyclists or pedestrians, while permitting motorists to cross the center of the roadway when passing.



ELMORE, OH

Wider travel lanes are correlated with higher vehicle speeds.

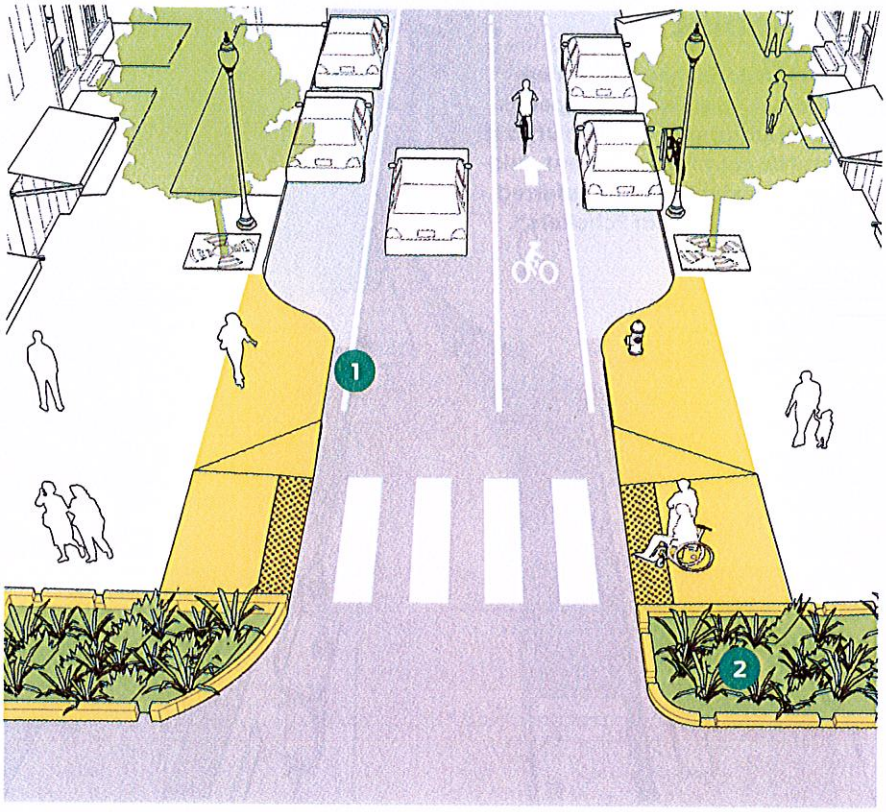


"As the width of the lane increased, the speed on the roadway increased... When lane widths are 1 m (3.3 ft) greater, speeds are predicted to be 15 km/h (9.4 mph) faster."

Chart source: Fitzpatrick, Kay, Paul Carlson, Marcus Brewer, and Mark Wooldridge. 2000. "Design Factors That Affect Driver Speed on Suburban Streets." *Transportation Research Record* 1751: 18–25.

Gateway

Curb extensions are often applied at the mouth of an intersection. When installed at the entrance to a residential or low-speed street, a curb extension is referred to as a "gateway" treatment and is intended to mark the transition to a slower speed street.



CRITICAL

The length of a curb extension should at least be equal to the width of the crosswalk, but is recommended to extend to the advanced stop bar.

RECOMMENDED

1 A curb extension should generally be 1–2 feet narrower than the parking lane, except where the parking lane is treated with materials that integrate it into the structure of the sidewalk.

NEW YORK, NY

Curb extensions should be installed whenever on-street parking is present to increase visibility, reduce the crossing distance, provide extra queuing space, and allow for enhancements, such as seating or greenery.

2 Combine stormwater management features, such as bioswales or rain gardens, with curb extensions to absorb rainwater and reduce the impervious surface area of a street.

INDIANAPOLIS, IN

Curb extensions may be combined with bioswales in order to decrease puddling at crosswalks.

OPTIONAL

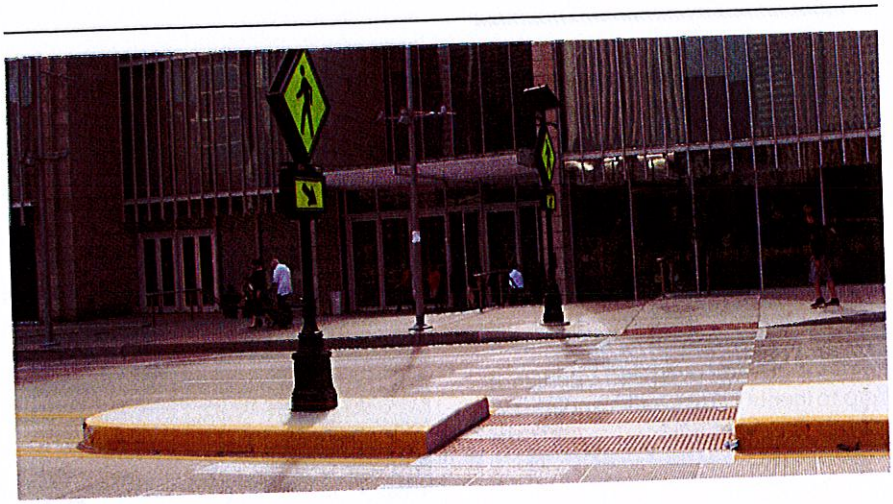
Curb extensions may be treated with corner street furniture and other amenities that enhance the public realm.

NEW YORK, NY

In advance of a full reconstruction, gateways can be designed using striping or signage that communicates the entrance into a slow zone.

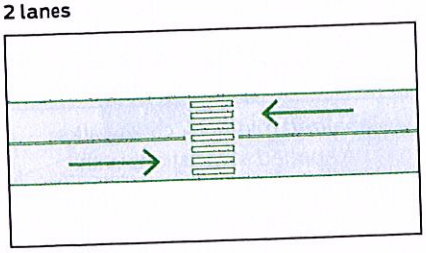
Pedestrian Safety Islands

A pedestrian safety island reduces the exposure time experienced by a pedestrian in the intersection. While safety islands may be used on both wide and narrow streets, they are generally applied at locations where speeds and volumes make crossings prohibitive, or where three or more lanes of traffic make pedestrians feel exposed or unsafe in the intersection.

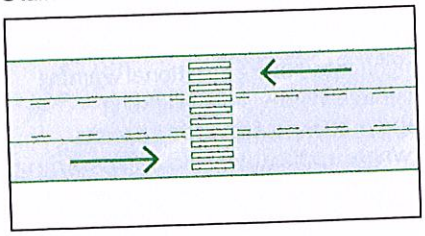


CHICAGO, IL

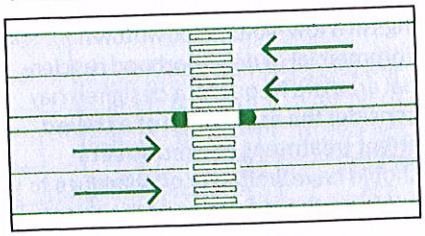
2 lanes



3 lanes



4 lanes



As the number of travel lanes increases, pedestrians feel more exposed and less safe entering the intersection. For unsignalized crossings, higher speeds and volumes may necessitate the use of a median at narrower cross sections.

DISCUSSION

Pedestrian safety islands limit pedestrian exposure in the intersection. They are recommended where a pedestrian must cross three lanes of traffic in one direction (on a 1-way or a 2-way street), but may be implemented at smaller cross-sections where space permits.

CRITICAL

Pedestrian safety islands should be at least 6 feet wide, but have a preferred width of 8–10 feet. Where a 6-foot-wide median cannot be attained, a narrower raised median is still preferable to nothing. The minimum protected width is 6 feet, based on the length of a bicycle or a person pushing a stroller. The refuge is ideally 40 feet long.

The cut-through or ramp width should equal the width of the crosswalk. Where this cannot be achieved, crosswalks should be striped wider than the cut-through area.

RECOMMENDED

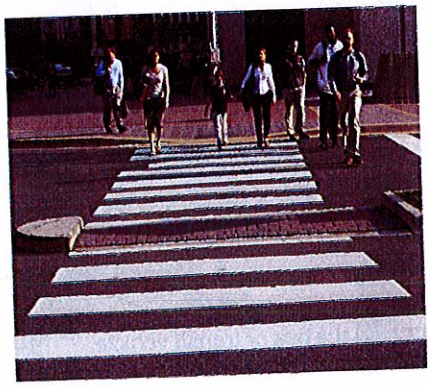
All medians at intersections should have a "nose" which extends past the crosswalk. The nose protects people waiting on the median and slows turning drivers.

Safety islands should include curbs, bollards, or other features to protect people waiting.

It is preferable to have the crosswalk "cut-through" the median. Where the median is wider than 17 feet, ramps are preferred. This dimension is based on a 6-inch-high curb, two 1:12 ramps, and a 5-foot-wide level landing in the center.

OPTIONAL

Pedestrian safety islands may be enhanced using plantings or street trees. Plantings may require additional maintenance responsibilities and need to be maintained to ensure visibility.



CRYSTAL CITY, VA

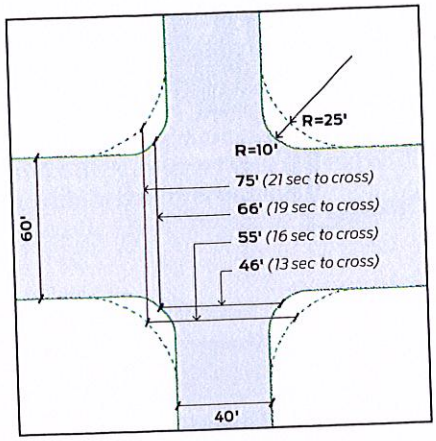
The "nose" in the median above protects pedestrians from turning cars.

Corner Radii

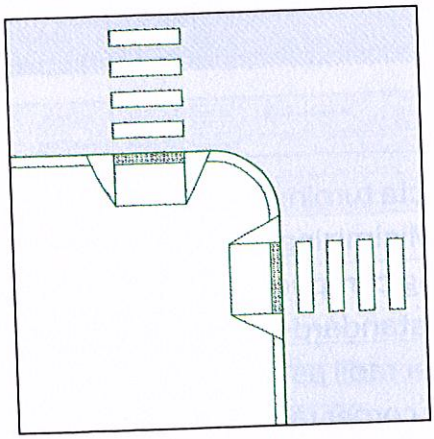
Corner radii directly impact vehicle turning speeds and pedestrian crossing distances. Minimizing the size of a corner radius is critical to creating compact intersections with safe turning speeds. While standard curb radii are 10–15 feet, many cities use corner radii as small as 2 feet. In urban settings, smaller corner radii are preferred and actual corner radii exceeding 15 feet should be the exception.

DISCUSSION

The size of the corner relates directly to the length of the crosswalk. Longer crosswalks take more time to cross, increasing pedestrian exposure risk and diminishing safety.[1]

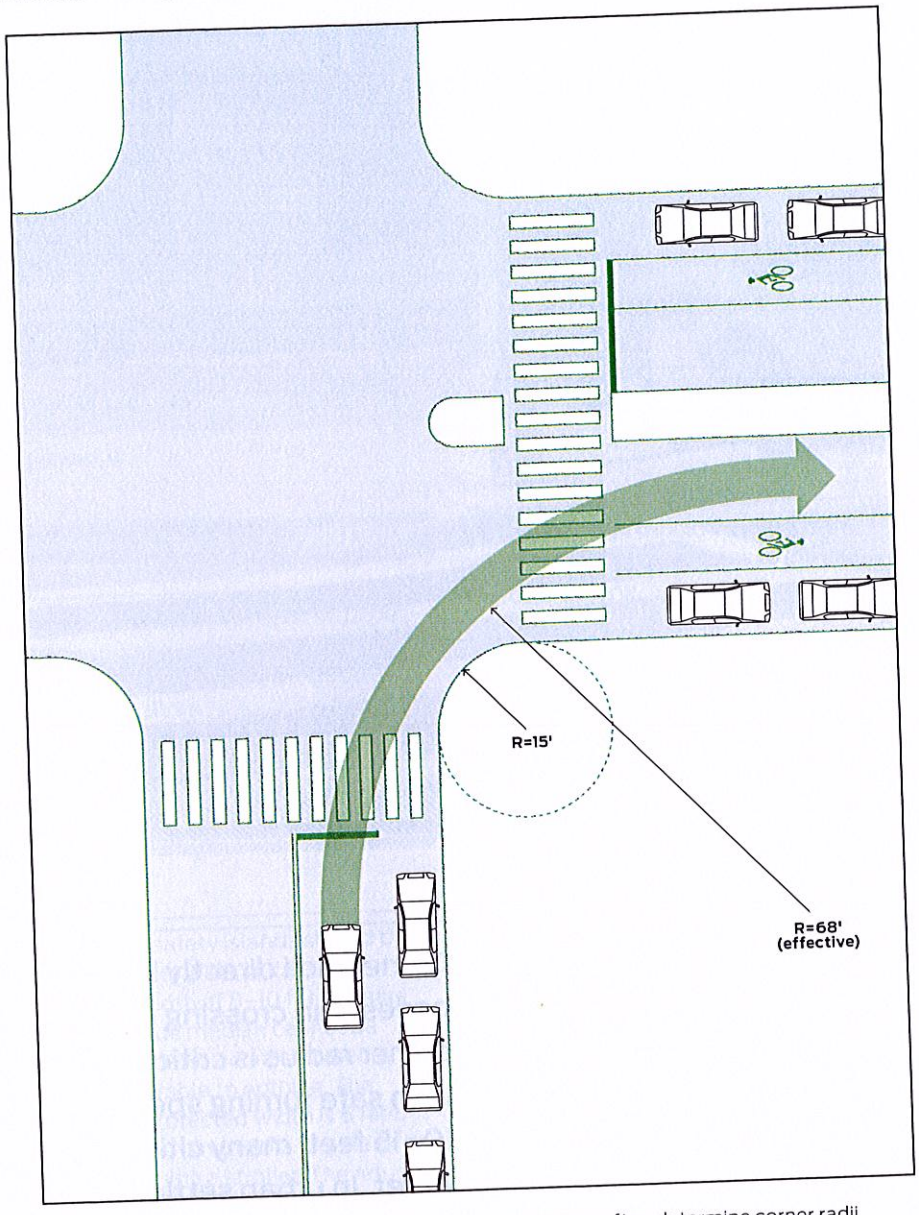


A smaller curb radius expands the pedestrian area, allowing for better pedestrian ramp alignment.



A large corner radius should not be used to facilitate a truck turning from the right lane into the right lane.[2]

Effective Turning Radius



The distinction between the corner radius and the effective turning radius is crucial and often overlooked. The corner radius may be a simple or a complex curve and depends primarily on the presence of on-street parking, bike lanes, the number of travel lanes, medians, and traffic control devices.

Designers often determine corner radii based on the intersection geometry only and overlook the effective radius. As a result, drivers making a turn on a green signal have little incentive to turn into the nearest receiving lane and routinely turn as wide as possible to maintain travel speeds.

RECOMMENDED

Turning speeds should be limited to 15 mph or less. Minimizing turning speeds is crucial to pedestrian safety, as corners are where drivers are most likely to encounter pedestrians crossing in the crosswalk.[3]

Minimize effective turning radius where possible by employing one or more of the following techniques:

- Select the smallest possible design vehicle.
- Accommodate trucks and buses on designated truck and bus routes.
- Restrict right-turns-on-red so there is no expectation of turning into the nearest receiving lane.
- Require larger vehicles to employ on-roadway personnel to "spot" vehicles through difficult turns.[4]
- Design so that emergency vehicles may utilize the full area of the intersection for making turns.

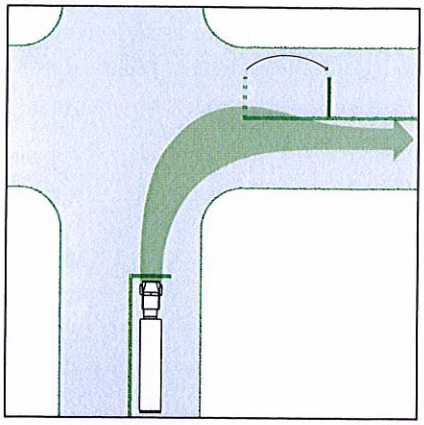
OPTIONAL

In cases where the curb radius of a given intersection has resulted in an unwieldy or unsafe crossing distance, but where funding is not available to reconstruct the curb immediately, a city may delineate the appropriate curb radius using interim materials such as epoxied gravel, planters, and bollards. This should be a temporary option until funding becomes available for a more permanent treatment.[5]

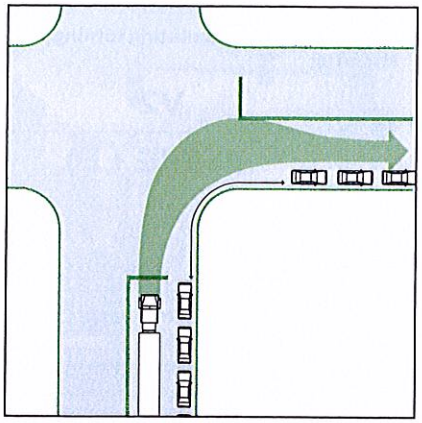
HONOLULU, HI

This landscaped island reduces corner and effective radii while maintaining existing drainage and providing a cut-through for pedestrians.

Various methods that accommodate large vehicles, while restricting the turning speed of smaller vehicles, may be used to avoid unnecessary widening of the intersection.



Stop bar set back

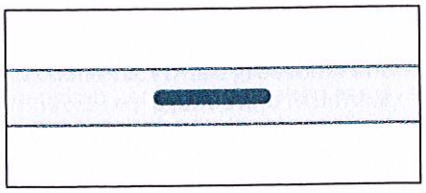


Parking restrictions near the corner

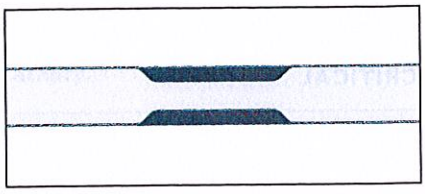
Narrower streets with curbside travel lanes may require larger corner radii because the effective turning radius mirrors the actual corner radius. The same holds true for streets with curb extensions. Streets should not be designed with larger corner radii in anticipation of the entire roadway being used for vehicle traffic at some point in the future.

Speed Reduction Mechanisms

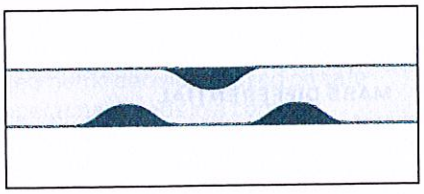
Cities can achieve a reduction in traffic speeds using a variety of traffic calming techniques. While certain speed controls alter the configuration of a roadway, others change how people psychologically perceive and respond to a street. Consider the following tools to encourage motorists to drive at target speeds.



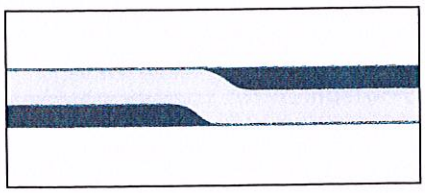
Median
Medians create a pinchpoint for traffic in the center of the roadway and can reduce pedestrian crossing distances.



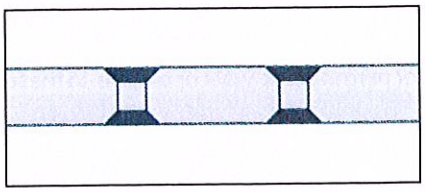
Pinchpoint
Chokers or pinchpoints restrict motorists from operating at high speeds on local streets and significantly expand the sidewalk realm for pedestrians.



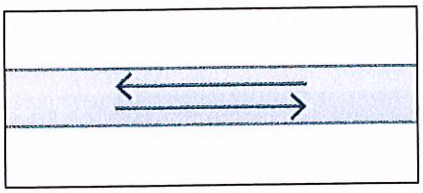
Chicane
Chicanes slow drivers by alternating parking or curb extensions along the corridor.



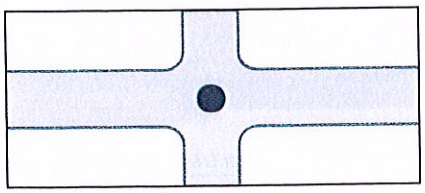
Lane Shift
A lane shift horizontally deflects a vehicle and may be designed with striping, curb extensions, or parking.



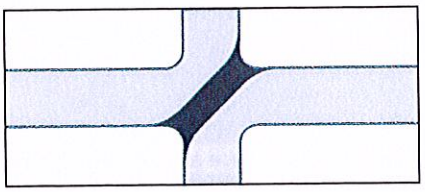
Speed Hump
Speed humps vertically deflect vehicles and may be combined with a midblock crosswalk.



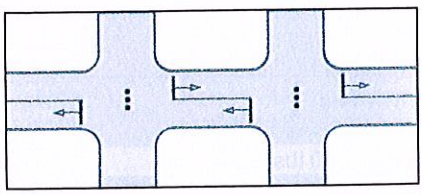
2-Way Street
2-way streets, especially those with narrower profiles, encourage motorists to be more cautious and wary of oncoming traffic.



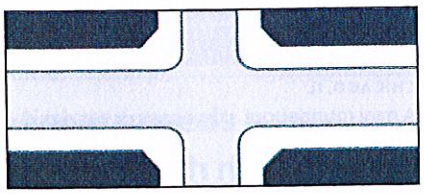
Roundabout
Roundabouts reduce traffic speeds at intersections by requiring motorists to move with caution through conflict points.



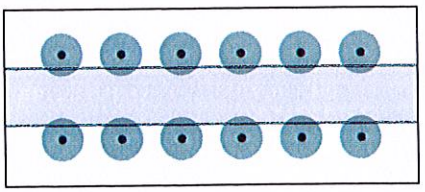
Diverter
A traffic diverter breaks up the street grid while maintaining permeability for pedestrians and bicyclists.



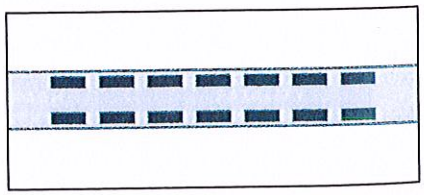
Signal Progression
Signals timed to a street's target speed can create lower speeds along a corridor.



Building Lines
A dense built environment with no significant setbacks constrains sightlines, making drivers more alert and aware of their surroundings.



Street Trees
Trees narrow a driver's visual field and create rhythm along the street.



On-Street Parking
On-street parking narrows the street and slows traffic by creating friction for moving vehicles.

Street	Average Weekday Volume	Average Weekend Volume	Avg. Weekday Westbound Volume	Avg. Weekday Eastbound Volume	Avg. Weekday Southbound Volume	Avg. Weekday Northbound Volume	Average Speed	85th Percentile Speed	% over 25 mph	% over 30 mph	% over 35 mph	% over 40 mph
Ridge	3,549	3,257			2,220	1,329	28.5	32.3	82.4%	44.1%	6.5%	0.7%
Woodward Heights	2,854	2,068	1,515	1,339			26.2	29.9	54.7%	16.4%	3.8%	0.9%
Oxford	1,152	888	216	936			26.2	30.3	61.7%	22.3%	2.8%	0.5%
Indiana	892	730			432	460	21.4	26.0	18.3%	4.3%	1.2%	0.1%
Cambridge W	525	227	261	264			26.2	30.7	61.4%	23.9%	3.7%	0.7%
Maplefield	424				256	168	23.4	30.2	38.0%	17.0%	3.2%	0.5%
Amherst												
Bermuda												
Cambridge E												
Devonshire												
Elm Park Avenue												
Elm Park Boulevard												
Fairwood												
Hanover												
Kenberton												
Kenberton W												
Kensington												
Maywood												
Millington												
Norwich												
Oakdale												
Oakland Park												
Poplar Park												
Sylvan												
Wellesley												
Woodside Park												
Woodward												

Ridge Road Traffic Analysis

100 feet South of Oakland Park

December 8, 2014 through December 14, 2014

Count Location

Location: Ridge Road 100 feet south of Oakland Park

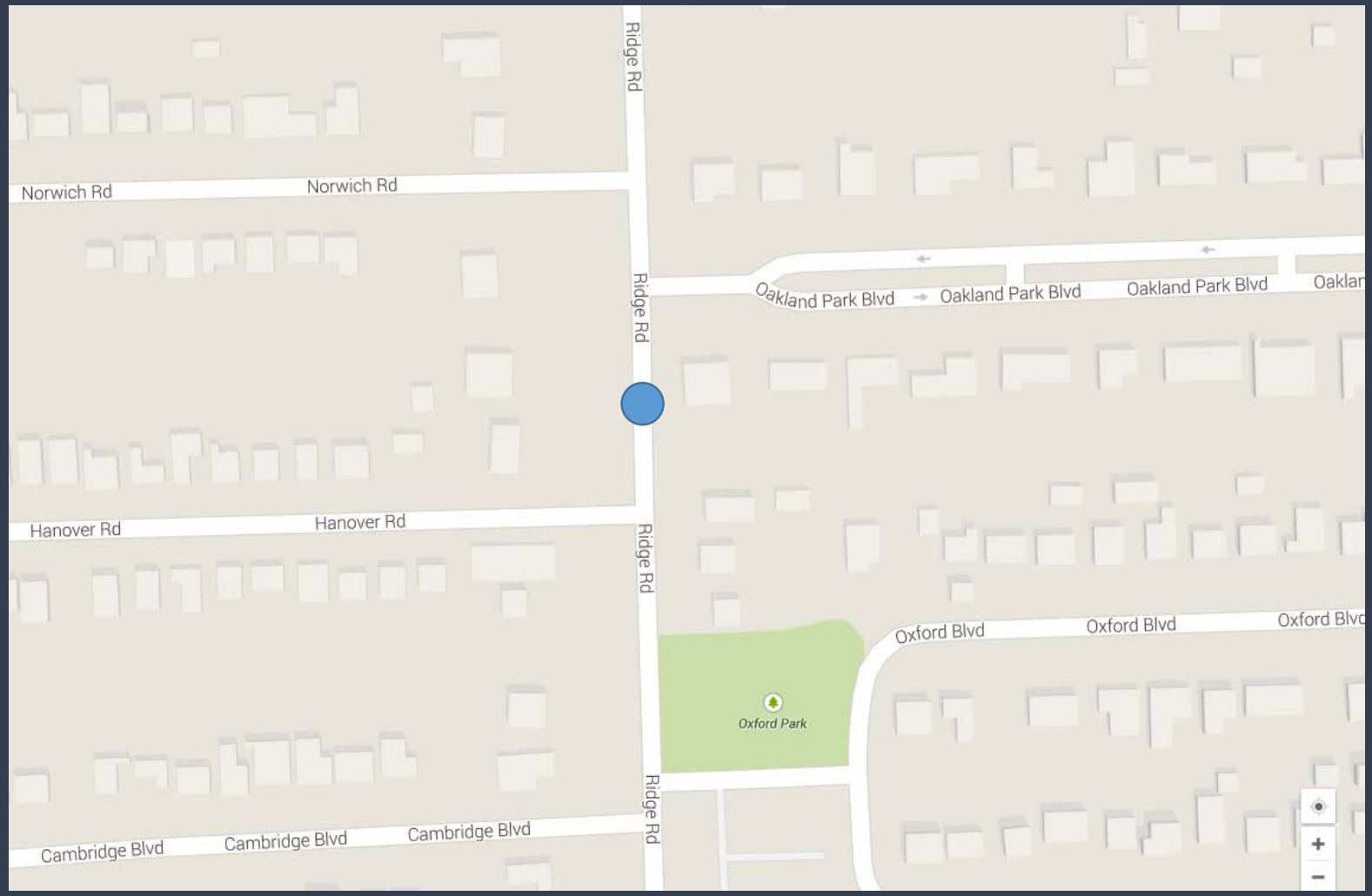
Time Period: Monday, 12/8/14 through Sunday, 12/14/14

Total 7-day volume: 24,259

Average daily volume: 3,466

Average weekday volume: 3,549

Average weekend volume: 3,257

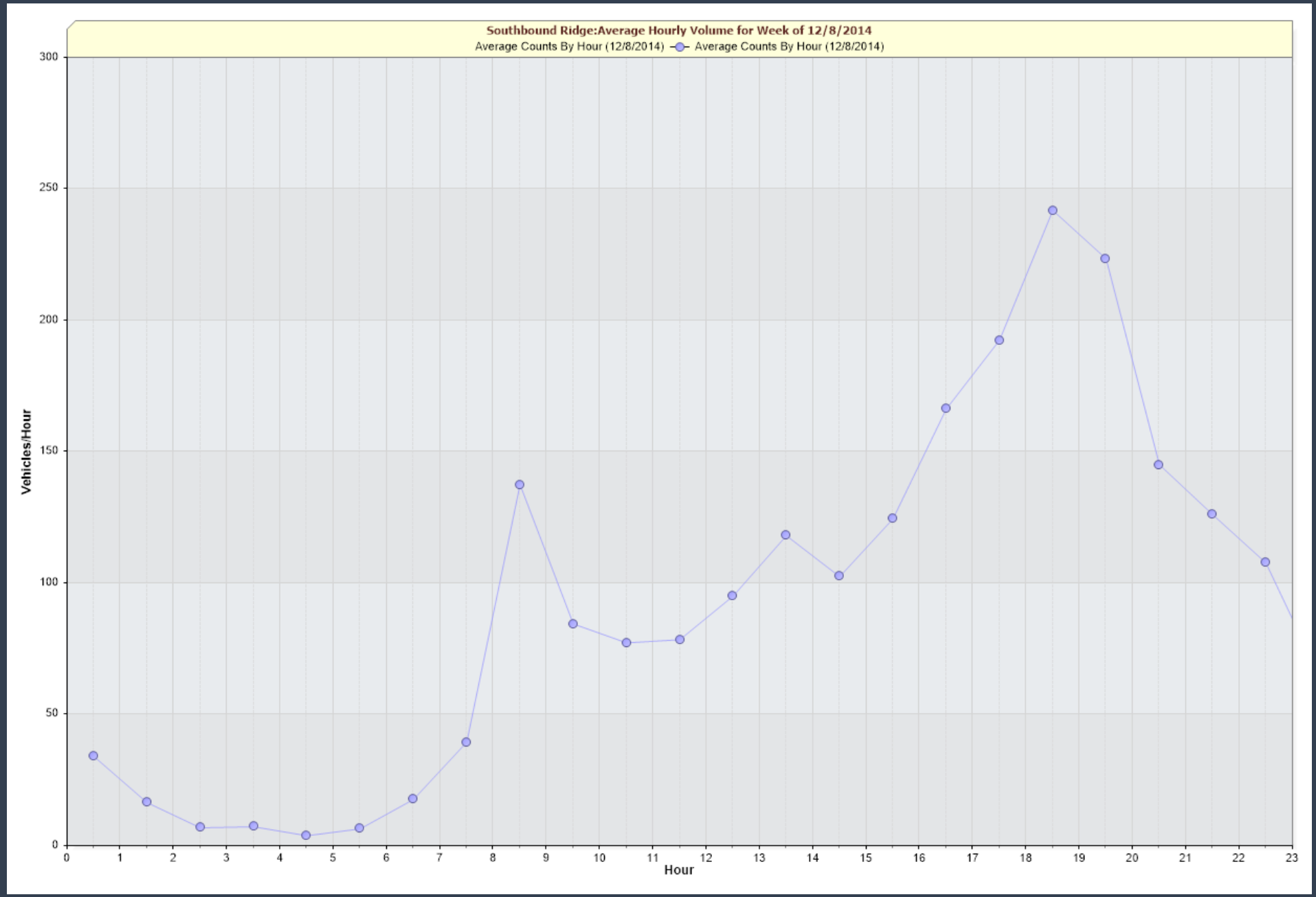


Key Data

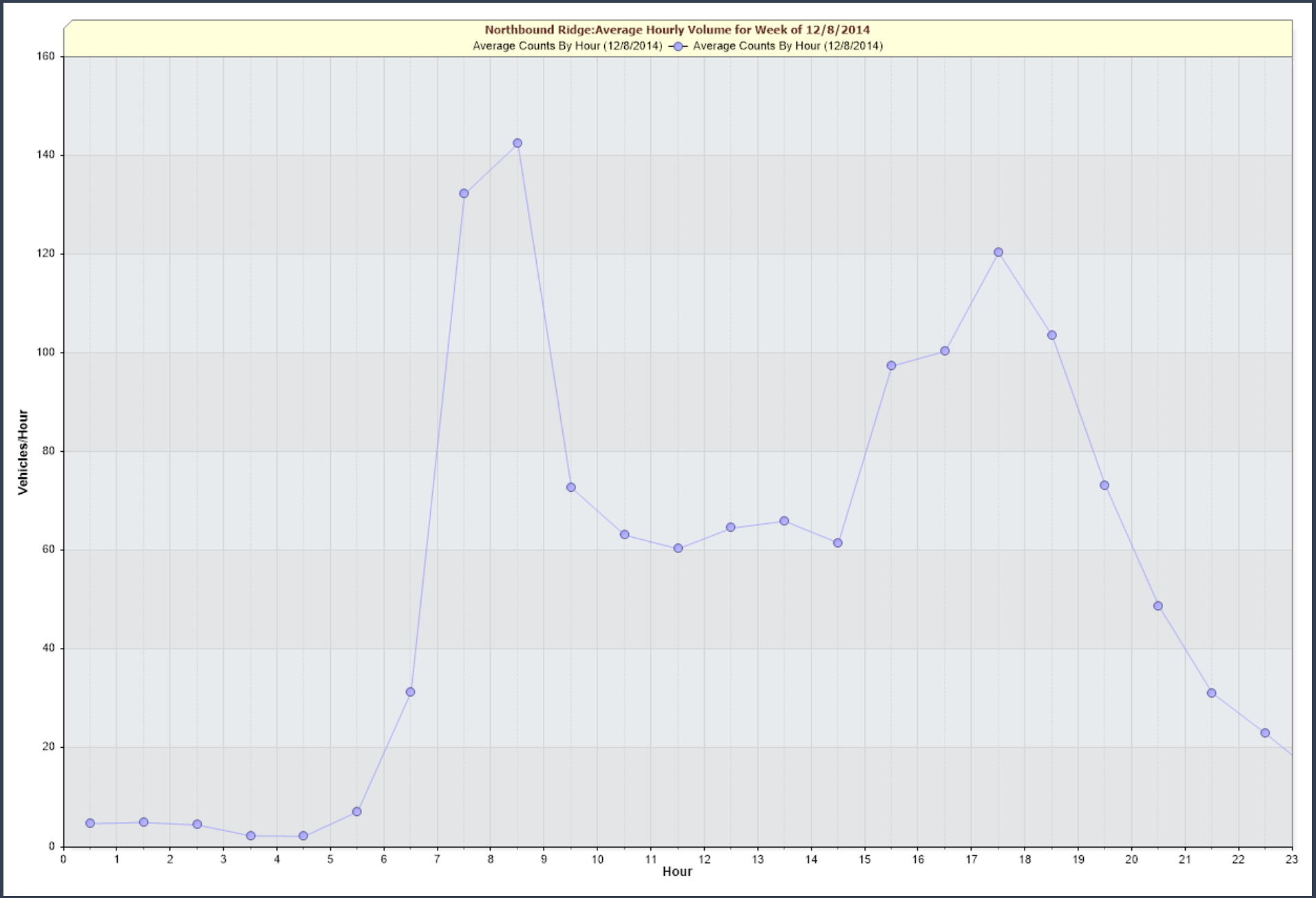
AM peak hour is 8-9am, and PM peak hour is 5-6pm

	Northbound	Southbound	Total
Average Daily Traffic (weekday)	1,329	2,220	3,549
AM Peak Hour Vol. (weekday)	160	135	295
PM Peak Hour Vol. (weekday)	125	242	367
Average Speed	28.2 mph	28.6 mph	28.5 mph
85th Percentile Speed	31.9 mph	32.3 mph	--
% over 25 mph	84.2%	79.5%	82.4%
% over 30 mph	45.6%	41.7%	44.1%
% over 35 mph	7.0%	5.7%	6.5%
% over 40 mph	1.0%	0.4%	0.7%

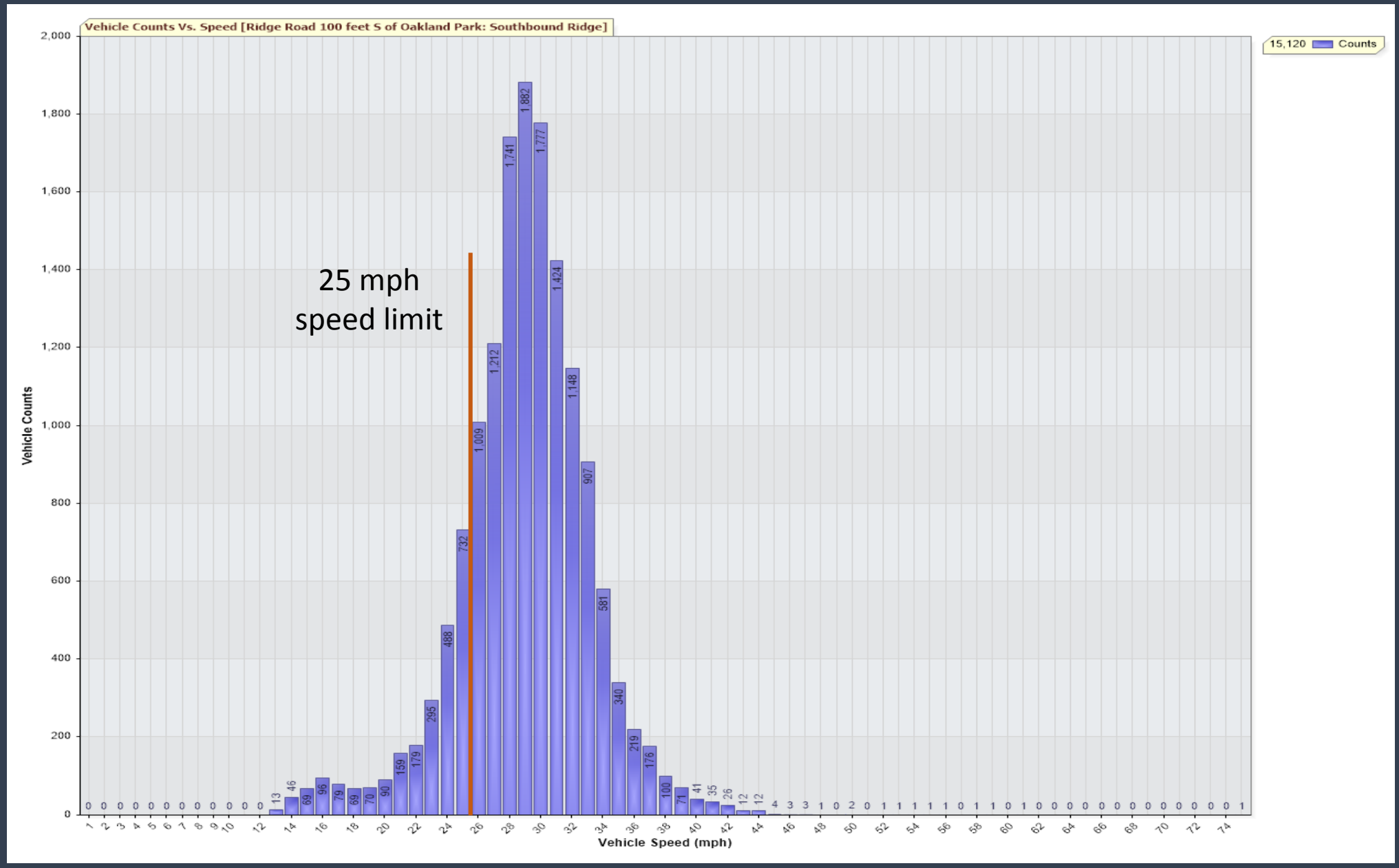
Southbound Avg. Hourly Volume



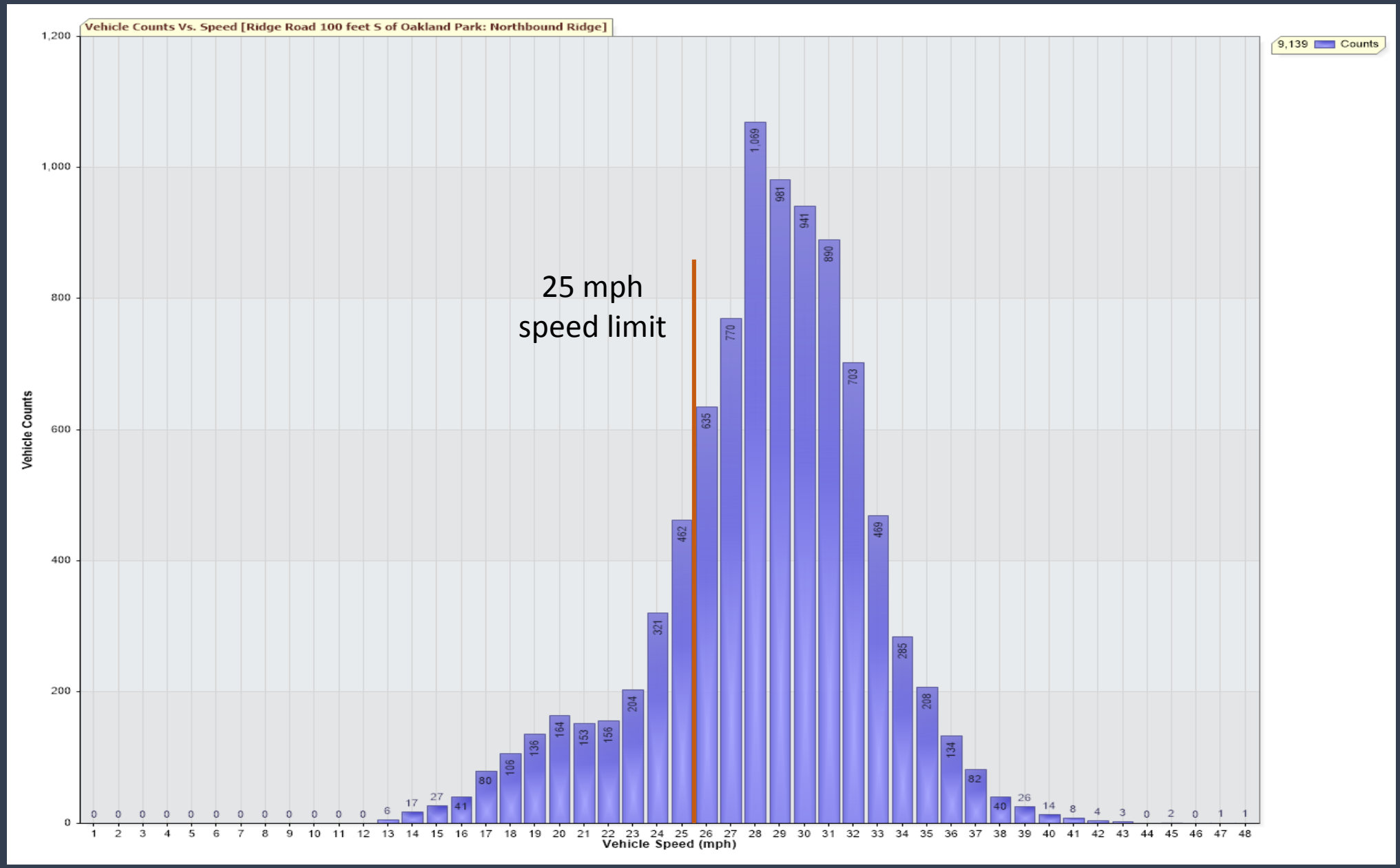
Northbound Avg. Hourly Volume



Southbound Speed Distribution

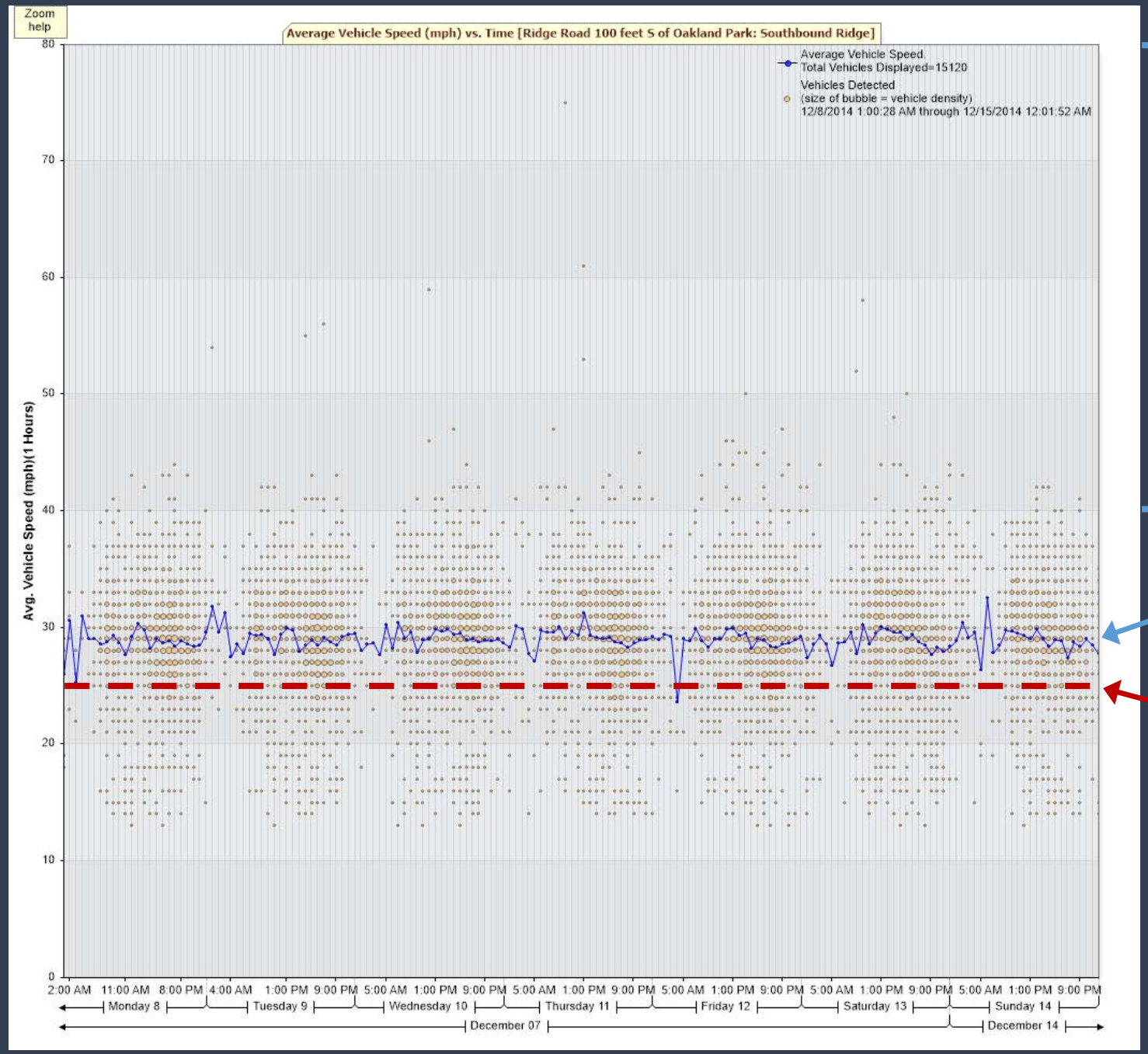


Northbound Speed Distribution



Ridge Rd.

Southbound Speed Scatterchart

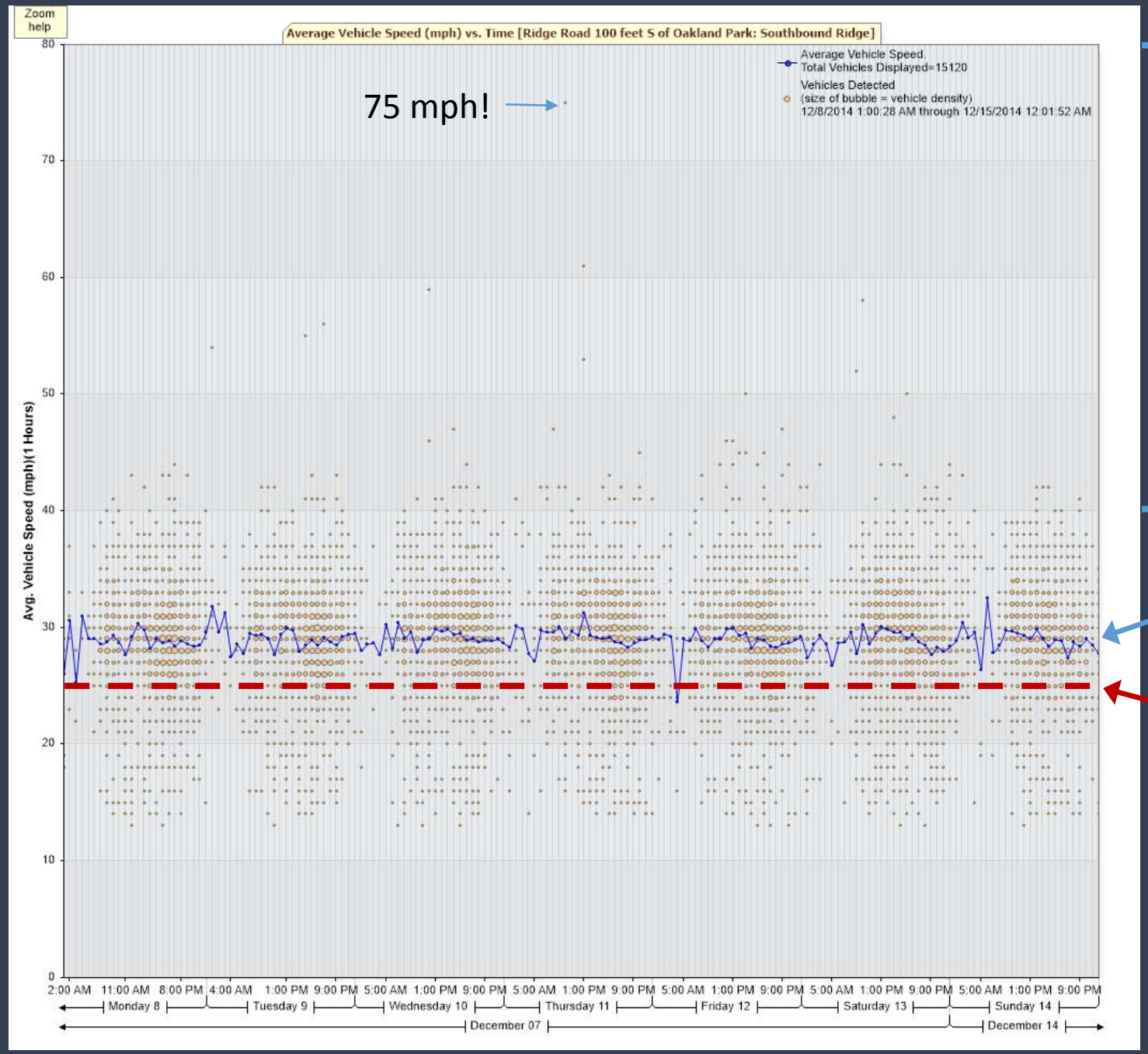


>40 mph
measured speed

Average measured speed

25 mph speed limit

Southbound Speed Scatterchart



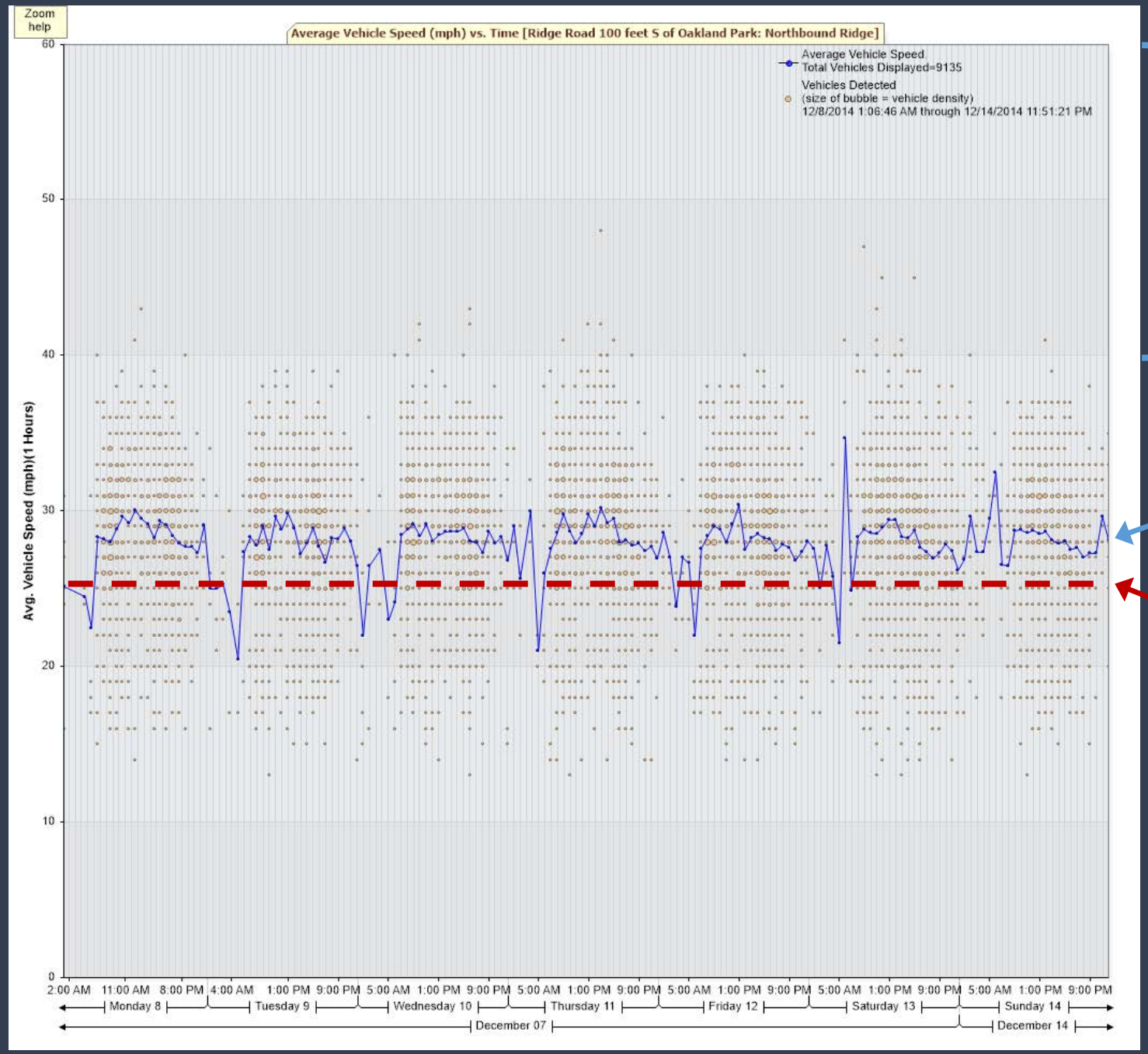
>40 mph
measured speed

Average measured speed

25 mph speed limit

Northbound Speed Scatterchart

Ridge Rd.



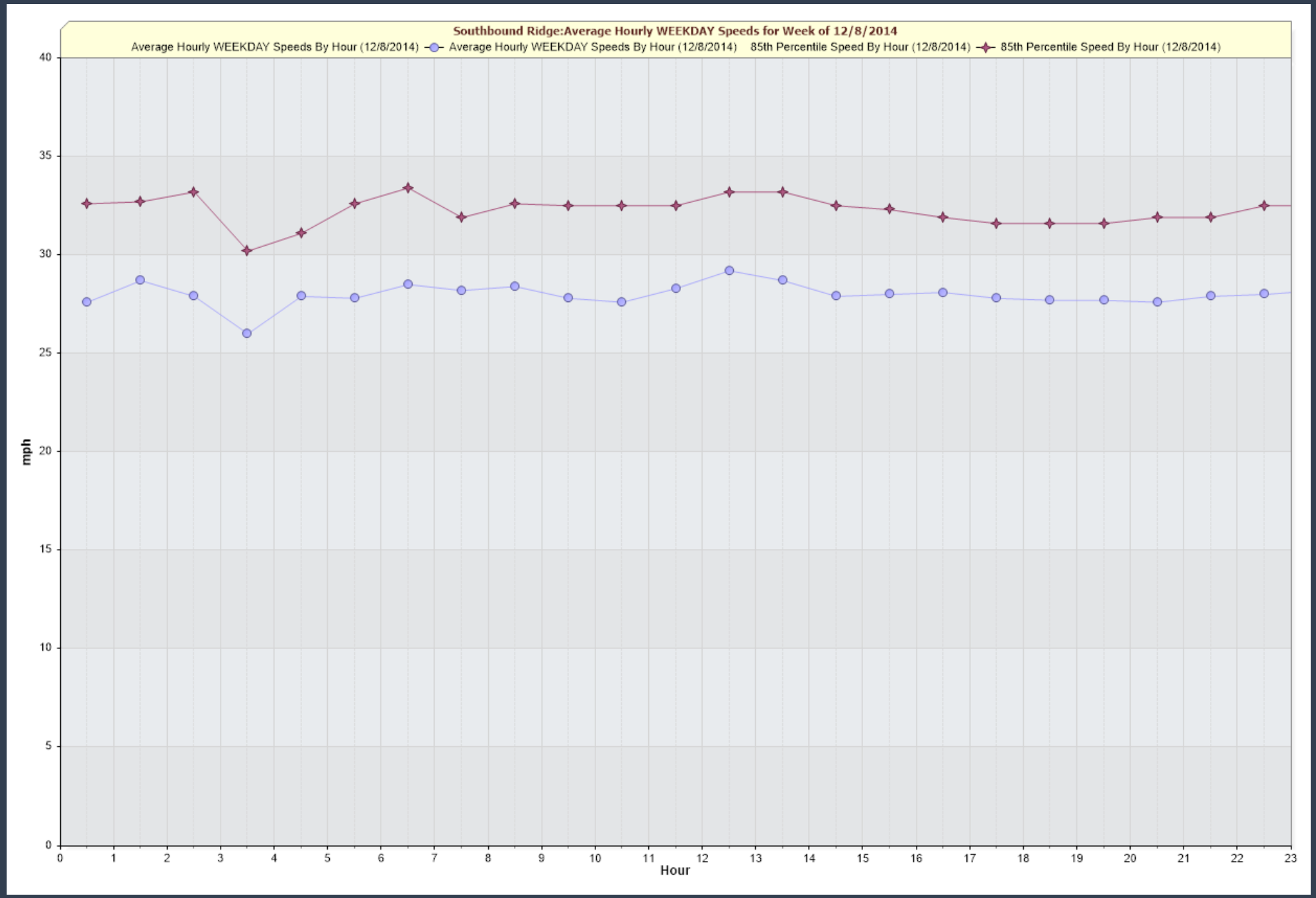
>40 mph measured speed

Average measured speed

25 mph speed limit

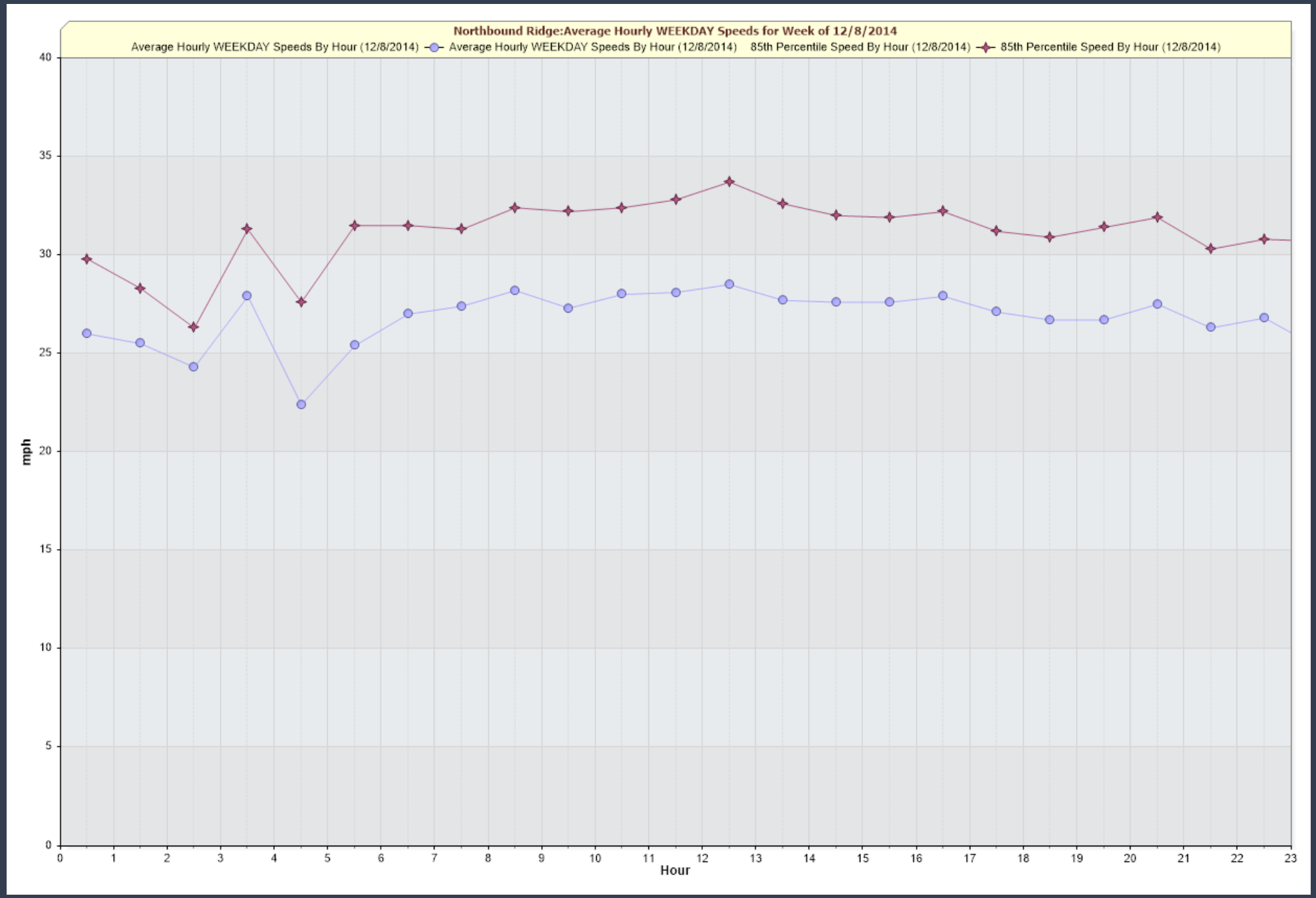
Southbound Speeds by Hour

Ridge Rd.

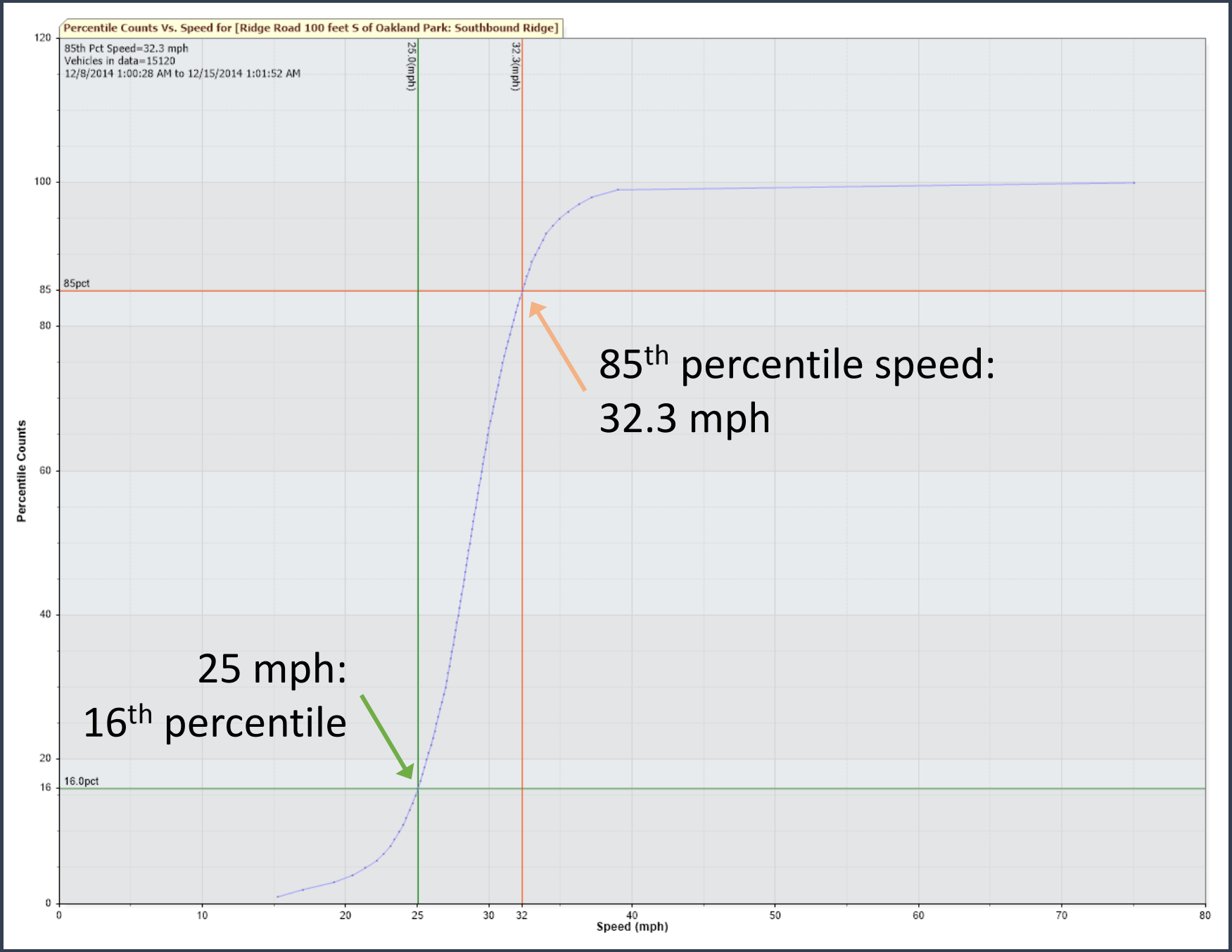


Ridge Rd.

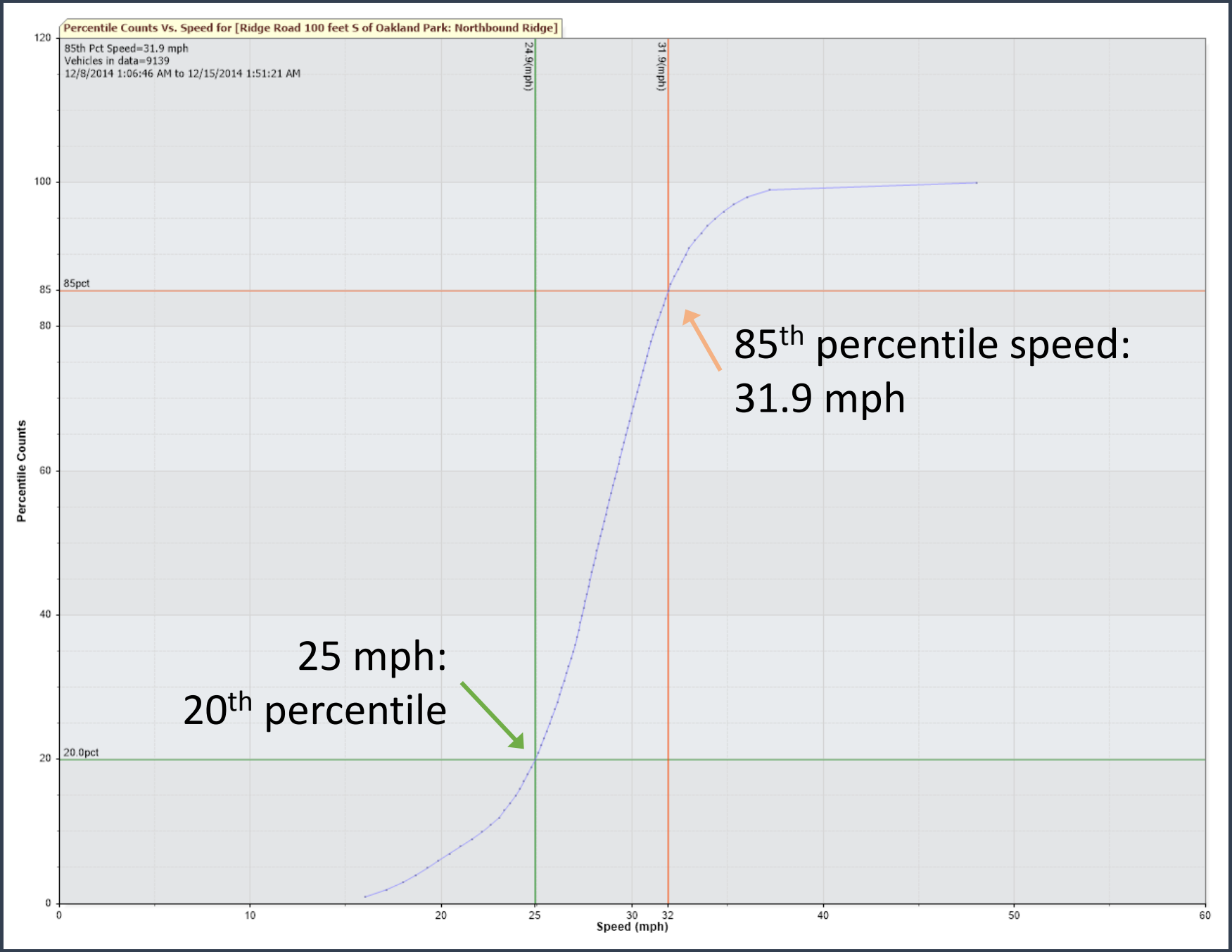
Northbound Speeds by Hour



Southbound Speed Percentiles



Northbound Speed Percentiles



Conclusions

- Speeds are consistently above 25 mph
- 56% of traffic travels <30mph
- Almost all traffic is below 35 mph
- A few very high vehicle speeds (>50 mph) on southbound Ridge (75 mph max)
- Traffic calming interventions necessary to support 25mph target speed