



**I-94 Operations Study: Ann Arbor-  
Saline Road to US-23**

Public Meeting #1

November 7, 2019

Presentation 5:00pm

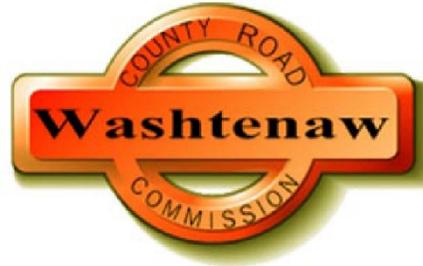
Presentation 6:30pm



# Background

- I-94 between Ann Arbor-Saline Road and US-23 is a heavily used commuter and freight corridor of regional and national significance.
- This segment of the I-94 corridor has not received significant improvements since the 1950's.
- The segment between State Street and US-23 is in the top 10 of the highest volume two-lane freeway segments in Michigan.
- In 2016, corridor operations and safety prompted MDOT to perform a preliminary analysis for roadway improvements.
- MDOT commissioned this study to provide a detailed analysis of the 2016 improvement concepts, identify additional concepts through a collaborative stakeholder process and vetted through public engagement.

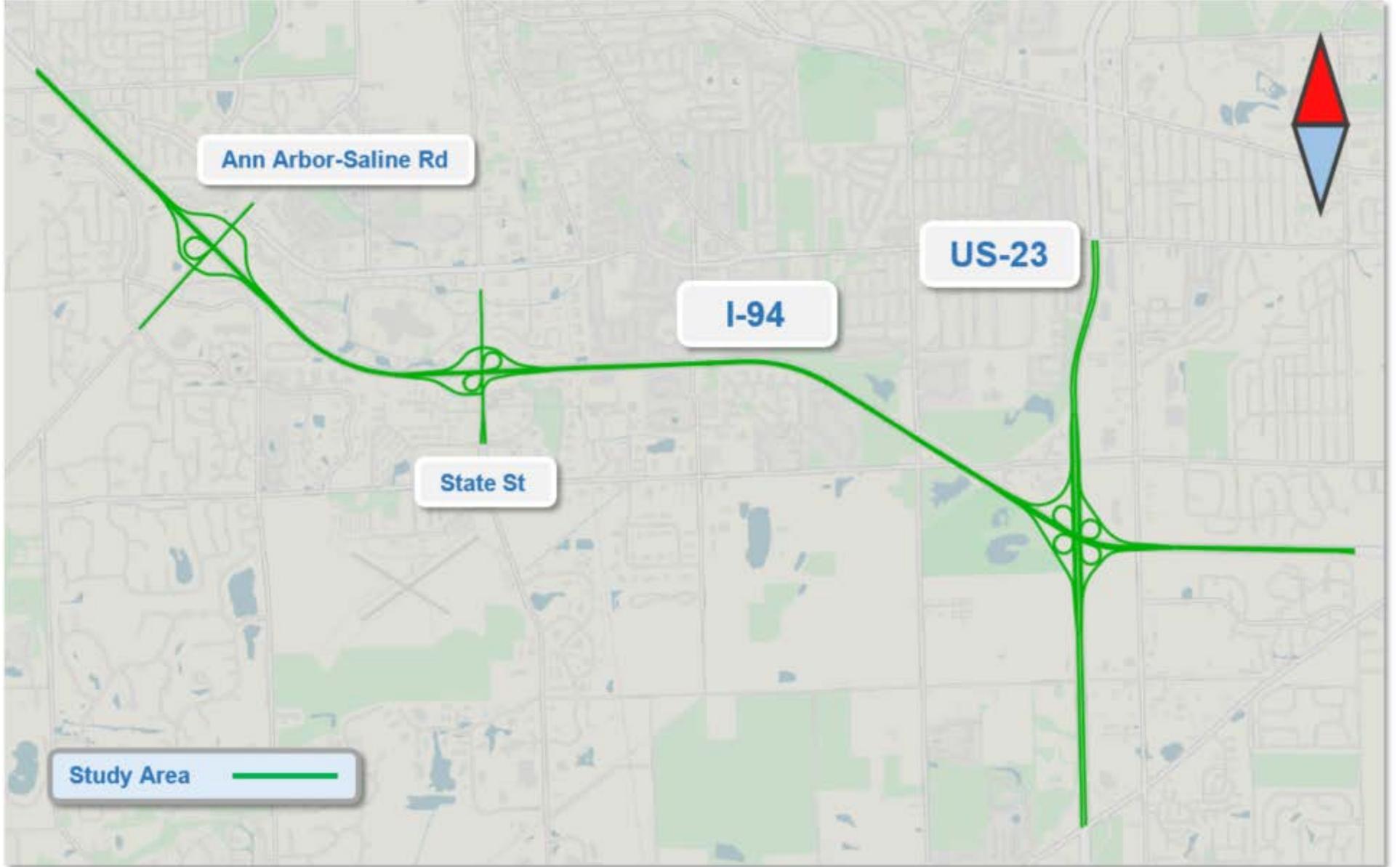




## Project Partners

- Michigan Department of Transportation
- City of Ann Arbor
- Pittsfield Township
- Washtenaw Area Transportation Study
- Washtenaw County Road Commission
- Federal Highway Administration

# Study Area



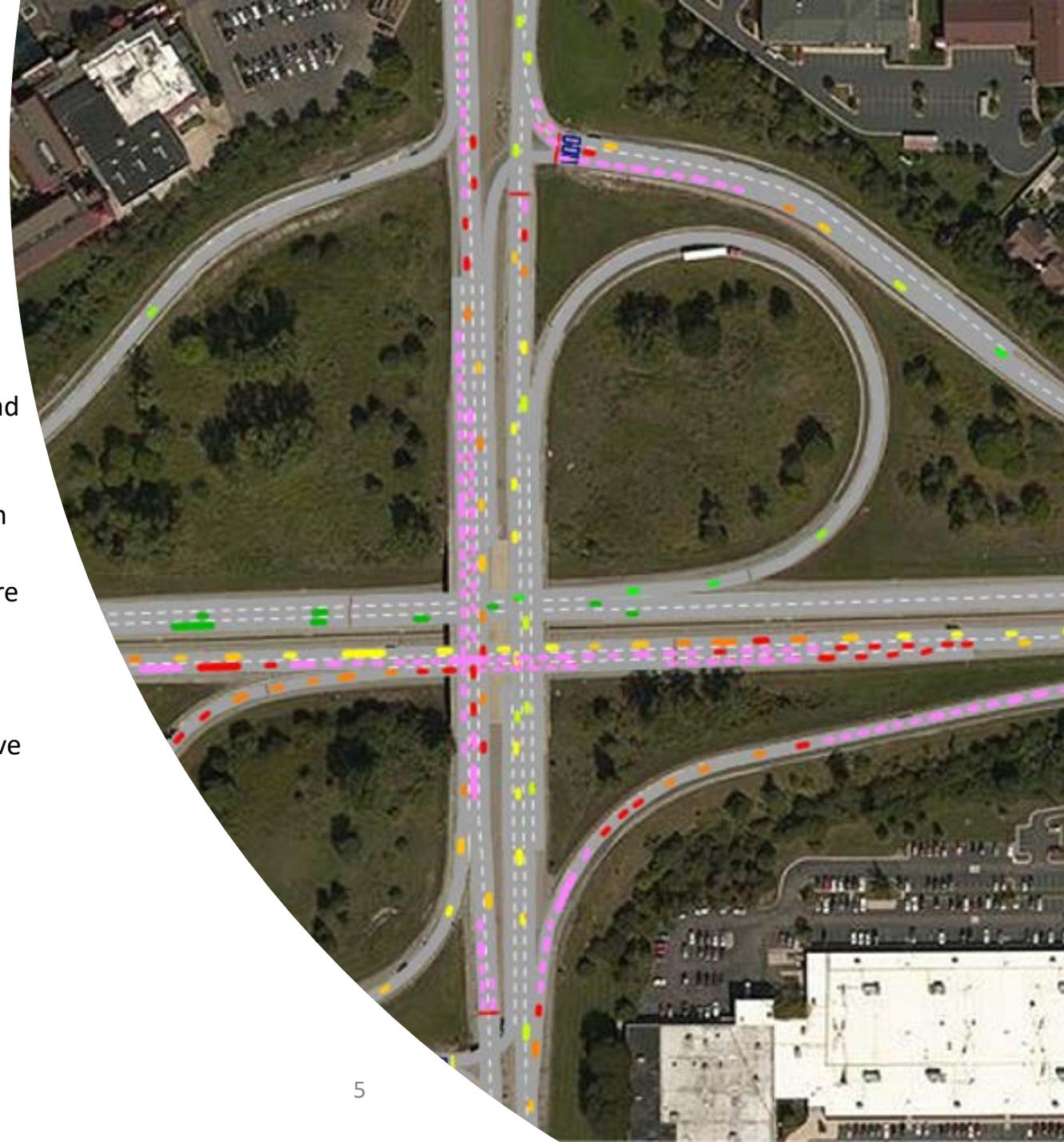
# Study Purpose and Objectives

## Purpose of the Study

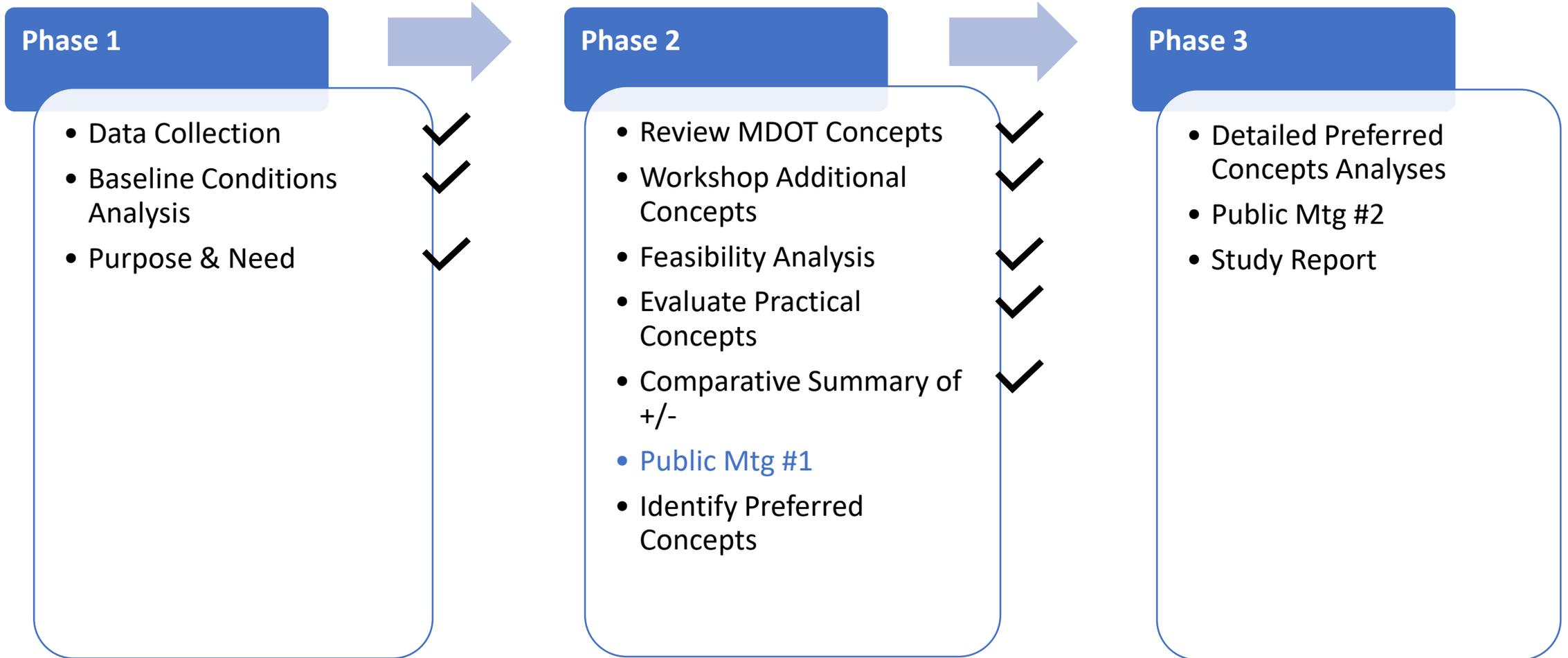
- Determine preferred concepts for a series of mobility, reliability, and safety improvements along the I-94 corridor from Ann Arbor-Saline Road to US-23.
- Develop concepts that optimally use the existing roadway footprint as much as possible to meet corridor performance needs and objectives in a process called **Performance Based Practical Design**.
- The preferred concepts from this study will provide a roadmap for future study, design, and construction along the corridor when funding becomes available.

## Specific Objectives

- Reduce recurring peak period congestion along the corridor and improve travel time reliability.
- Enhance safety for all roadway users on this portion of the interstate system and interchanges.
- Provide reasonable capacity to address existing and 20-year forecasted 2045 traffic demand along the corridor.
- Eliminate and minimize existing substandard design elements, where feasible, that contribute to operational and safety issues.



# Scope of Study



# Schedule

**PP Mtg #1**  
Project  
Introduction  
• 7/12/19

**PP Mtg #3**  
Practical  
Concepts  
Review  
• 9/17/19

**PP Mtg #4**  
Preferred  
Concepts  
Review  
• December 2019

**PP Mtg #5**  
Final Preferred  
Concepts  
• February 2020



4 wks



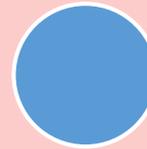
5 wks



7 wks



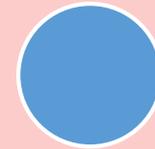
6 wks



3 wks



3 wks



**PP Mtg #2**  
Purpose &  
Need/Concepts  
Workshop  
• 8/8/19

**Public Meeting  
#1**  
• 11/7/19

**Public Meeting  
#2**  
• January 2020

PP Mtg = Project Partner Meeting

# Purpose & Need

EXHIBITS

## Purpose of this Study

### Purpose

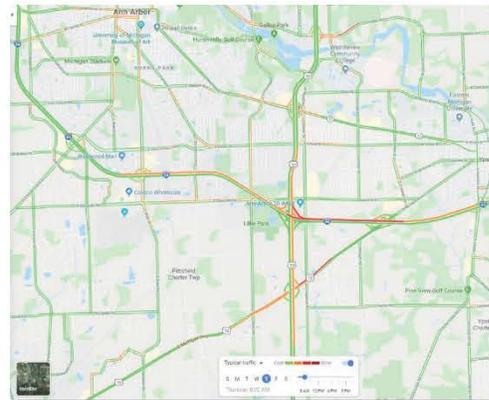
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### Specific Objectives

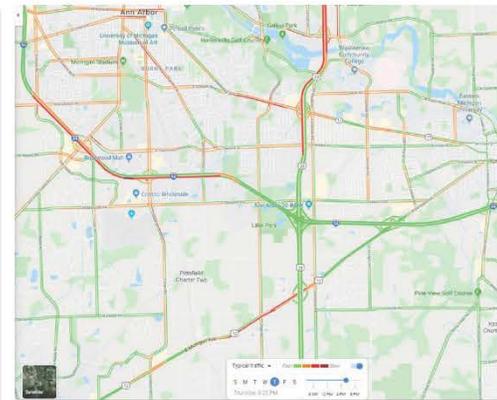
- Reduce recurring peak period congestion along the corridor and improve travel time reliability.
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## Congestion



AM Peak - Typical Congestion



PM Peak - Typical Congestion

## Safety



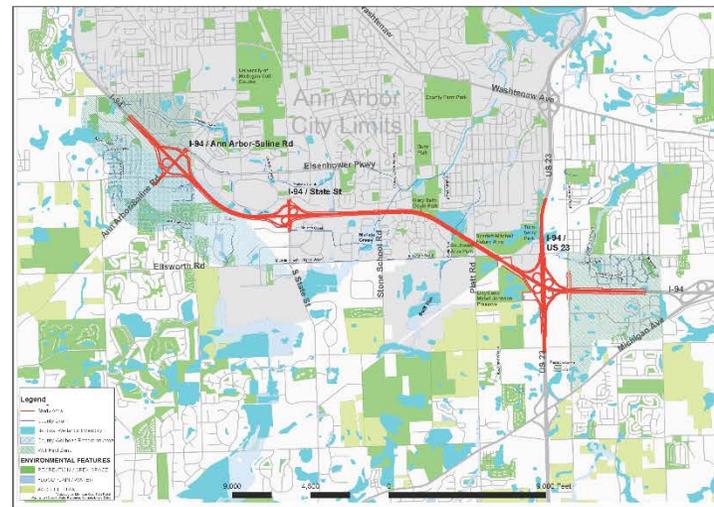
Concentration of crashes for WB I-94 between the two loop ramps at the US-23 system interchange

### CRASH DENSITY



- This portion of I-94 has the highest frequency of crashes and second highest crash rate along I-94 between M-60 (Jackson, Michigan) and I-275.
- This portion of I-94 has the highest frequency and rate of severe crashes along I-94 between M-60 (Jackson, Michigan) and I-275.
- There is a high frequency of congestion related crashes within the study corridor.

## Environmental

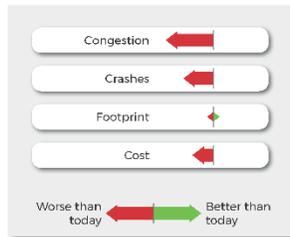
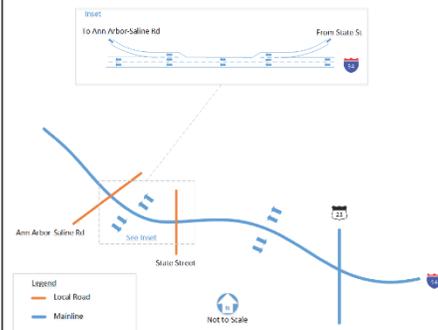


# Mainline I-94 Congestion

EXHIBITS

## No-Build

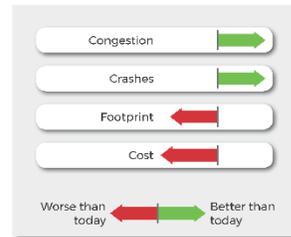
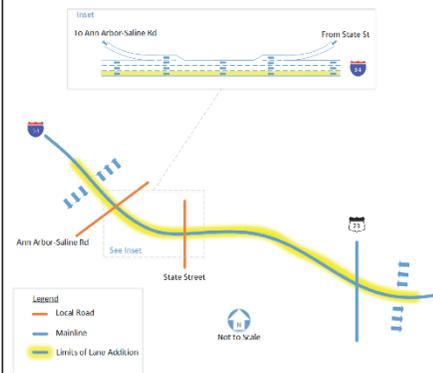
The No-Build alternative maintains the existing physical roadway network and serves as a baseline for comparison against the subsequent build concepts.



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## Continuous 3rd Lane

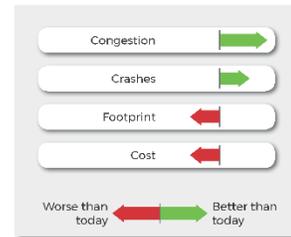
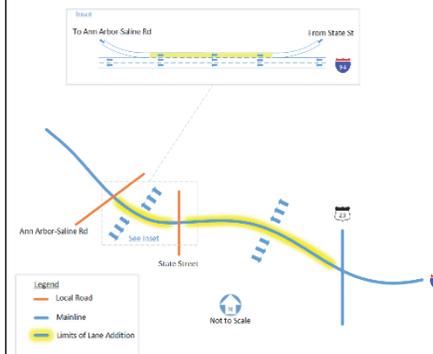
Add a new continuous 3rd travel lane on the left to both EB and WB I-94 from Ann Arbor-Saline Rd to US-23. New lane addition options could include: conventional widening w/full shoulders, restriping w/ narrower shoulders, or restriping & using shoulder as travel lane during peak times (Flex Route).



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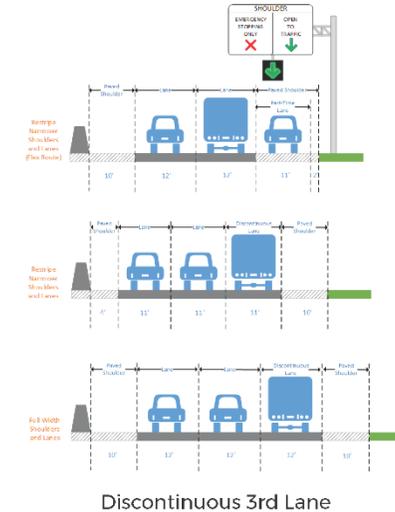
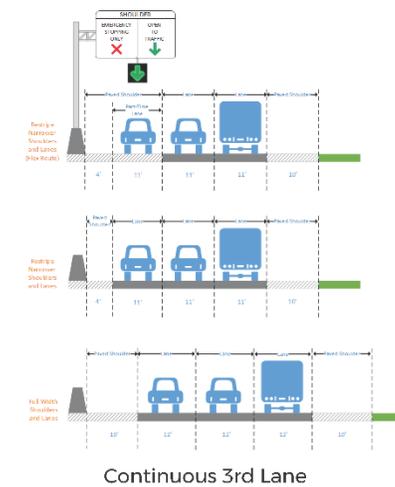
## Discontinuous 3rd Lane

Add a new discontinuous 3rd lane on the right to both EB and WB I-94 between key interchanges from Ann Arbor-Saline Rd to US-23. New lane addition options could include: conventional widening w/full shoulders, restriping w/ narrower shoulders, or restriping & using shoulder as travel lane during peak times (Flex Route).



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## Conceptual Lane Configurations

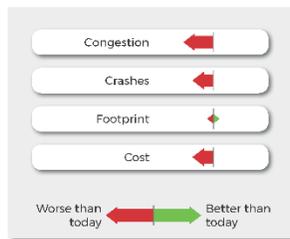
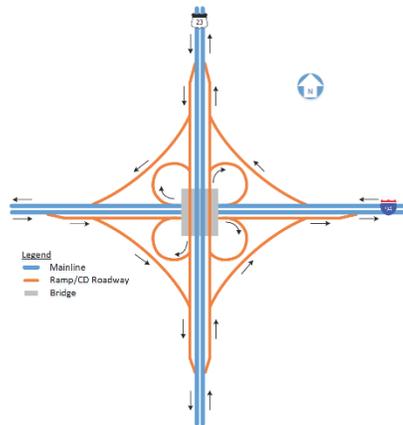


# Westbound I-94 at US-23 Weave

# EXHIBITS

## No-Build

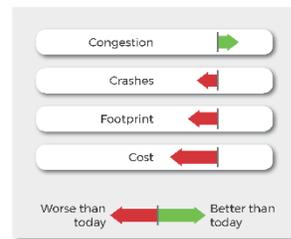
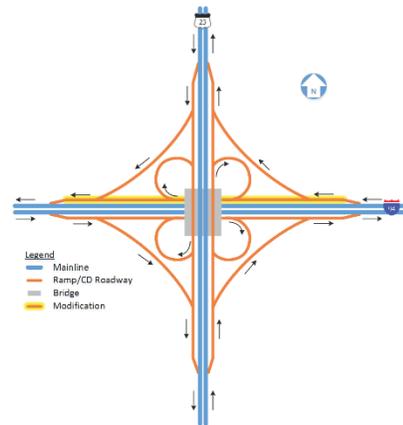
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## WB Collector-Distributor

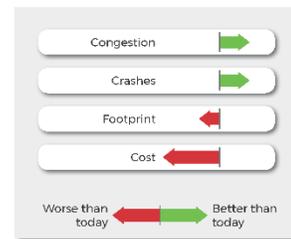
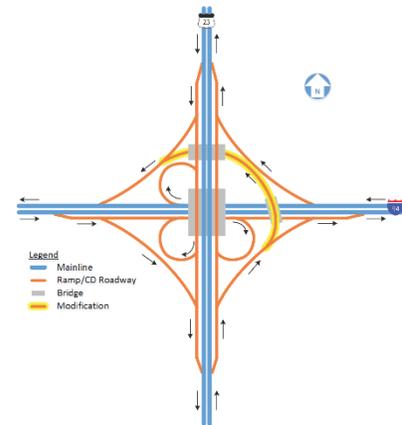
Add a new single lane westbound collector-distributor roadway parallel to westbound I-94 to facilitate weaving between the US-23 loop ramps on a lower volume roadway and mirror the eastbound I-94 CD roadway at US-23.



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## NB to WB Flyover

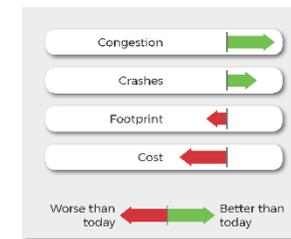
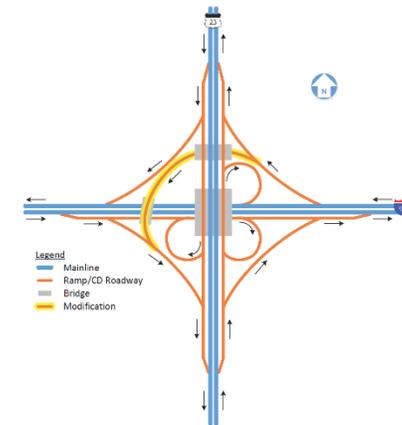
Remove and replace the loop ramp in the northwest quadrant of the interchange with a northbound to westbound flyover ramp eliminating the existing weave area between the loop ramps along westbound I-94.



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## WB to SB Flyover

Remove and replace the loop ramp in the northwest quadrant of the interchange with a westbound to southbound flyover ramp eliminating the existing weave area between the loop ramps along westbound I-94.



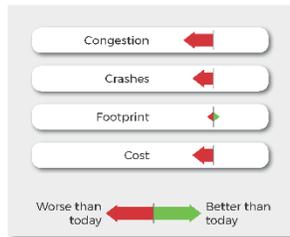
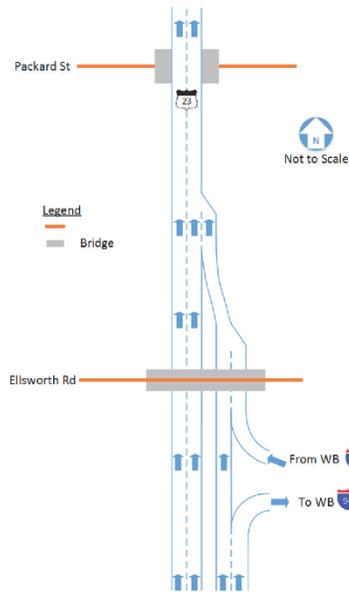
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# Westbound I-94 to Northbound US-23 Bottleneck

# EXHIBITS

## No-Build

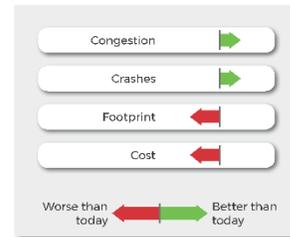
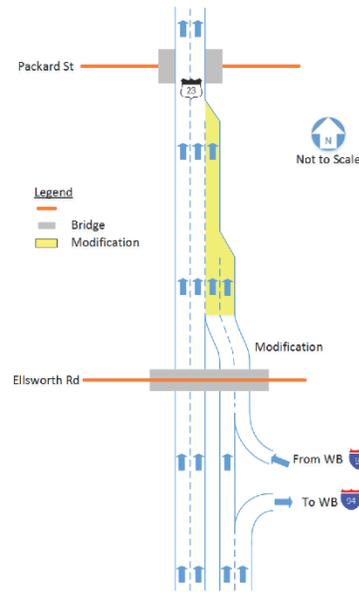
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## Acceleration Lane

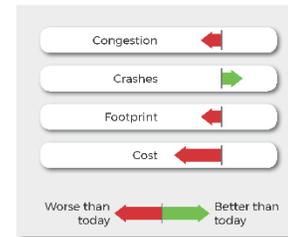
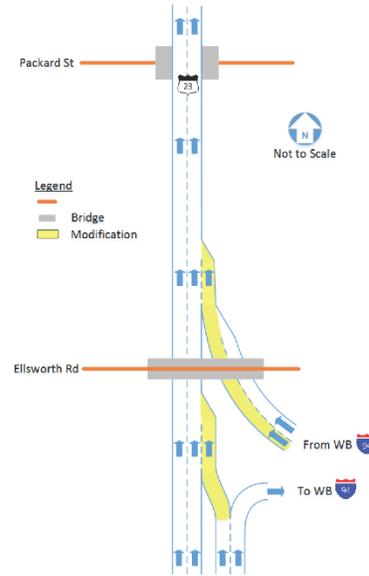
Reconstruct acceleration lane where the NB collector-distributor road merges with mainline NB US-23 to lengthen it to just south of the Packard Road bridge.



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## Dual Lane WB to NB Ramp

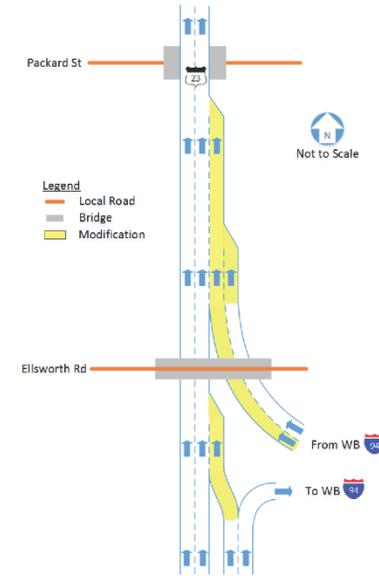
Merge existing northbound collector-distributor road with northbound US-23 in advance of westbound I-94 and carry a dual-lane westbound to northbound ramp on the existing alignment of the northbound collector-distributor roadway.



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## Hybrid

This concept combines the previous acceleration lane lengthening and dual lane WB to NB ramp concepts into single concept.



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