I-39/90 and US 12/18 (Beltline) Interchange

Public Hearing

4:30 p.m. – 6:30 p.m.

Traditional Style Public Hearing to begin at 5:00 p.m.

Ho-Chunk Nation Teejop Hocira

December 13, 2018

WISCONSIN DEPARTMENT OF TRANSPORTATION

39/90 IMPROVING a gateway to Wisconsin

Presentation Overview

- Design Approach
- Build Alternatives Considered / Preferred Alternative
- Safety Improvements – Preferred Alternative
- Traffic and Operations
- Next Steps

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Design Approach

December 2017 – Project Scope Revisited

New approach intended to:

- *Improve safety*
- *Avoid and minimize impacts*
- *Enable savings*

April 2018 – Public Involvement Meeting

Presented project Purpose and Need and introduce Alternatives A and B

- *Accommodate I-39/90 traffic levels*
- *Focus on safety issues*
- *Ensure compatibility with the ongoing I-39/90 reconstruction project*

Design Approach

Alternatives developed using Performance-Based Practical Design

The Performance-Based Practical Design approach:

- Uses a "design up" approach where transportation decision makers exercise engineering judgement to build up the improvements from existing conditions to meet both project and system objectives.

- Projects do not need to include features that provide performance exceeding the stated goals.

– Federal Highway Administration (https://www.fhwa.dot.gov/design/pbpd/)

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Existing Interchange Configuration

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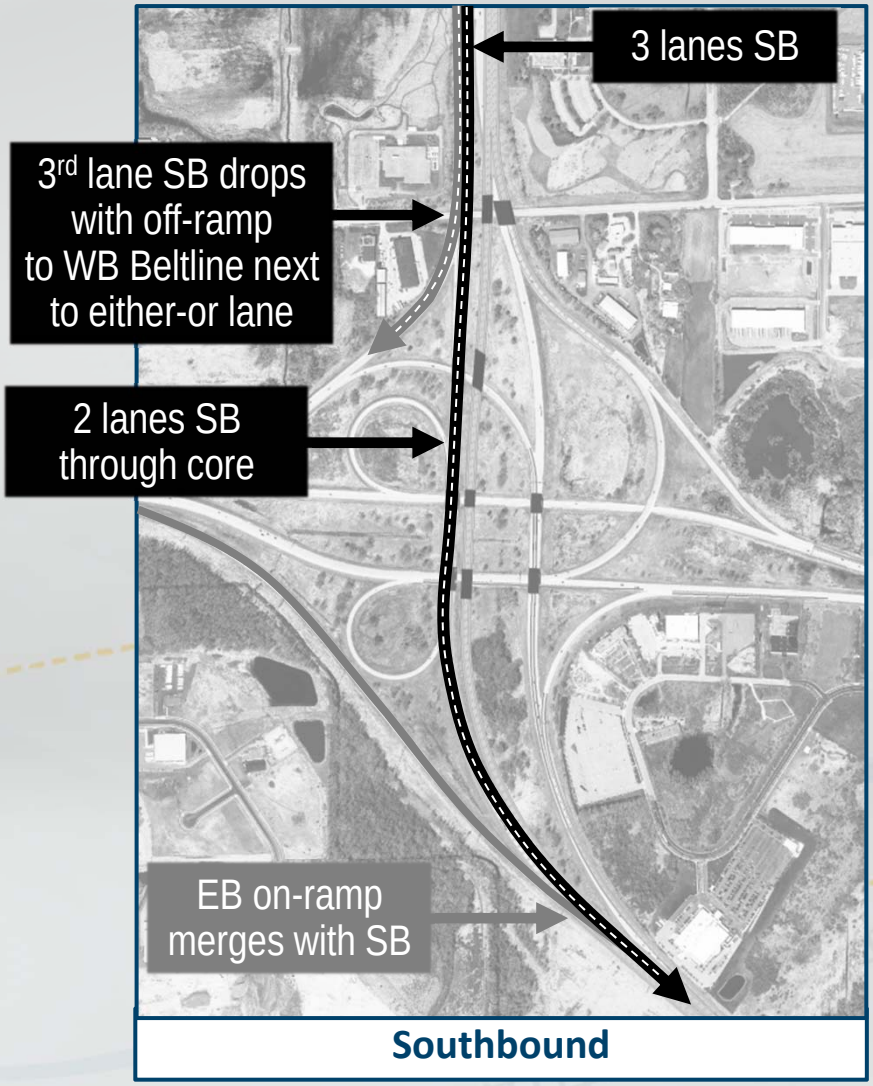

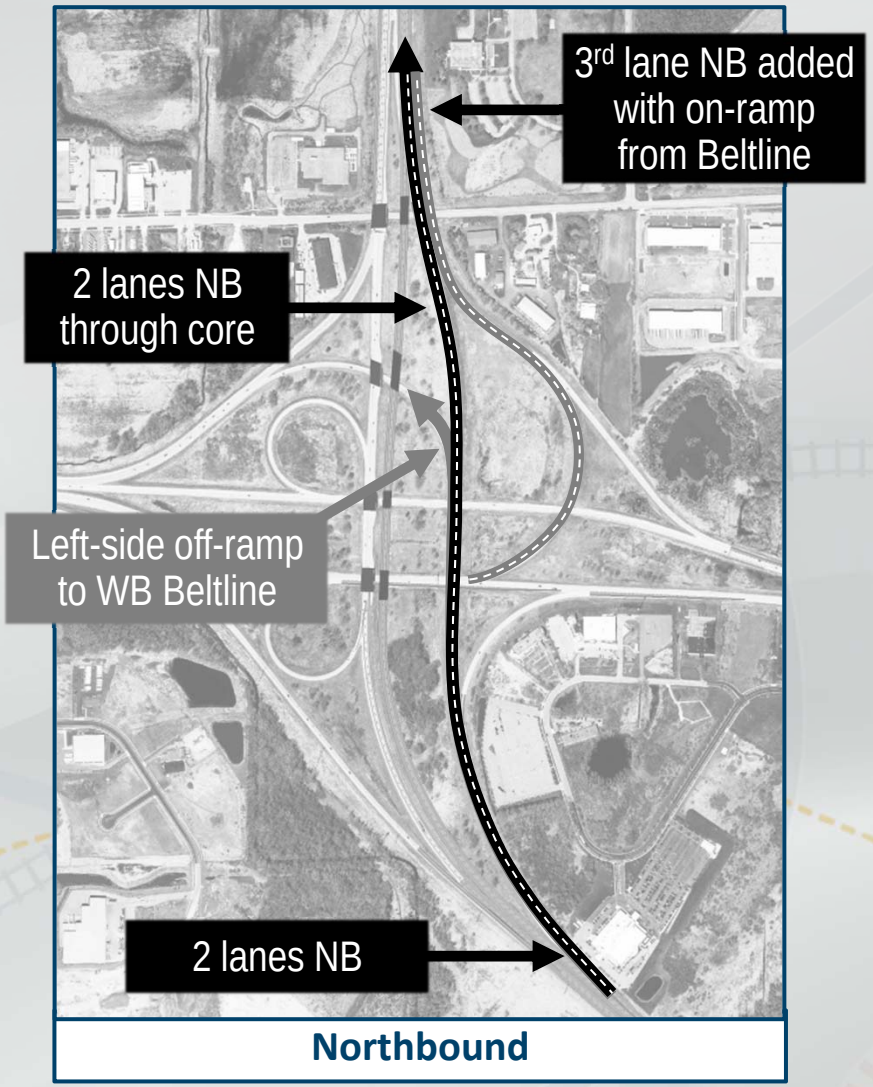

Alternative A (2 lanes NB and SB)

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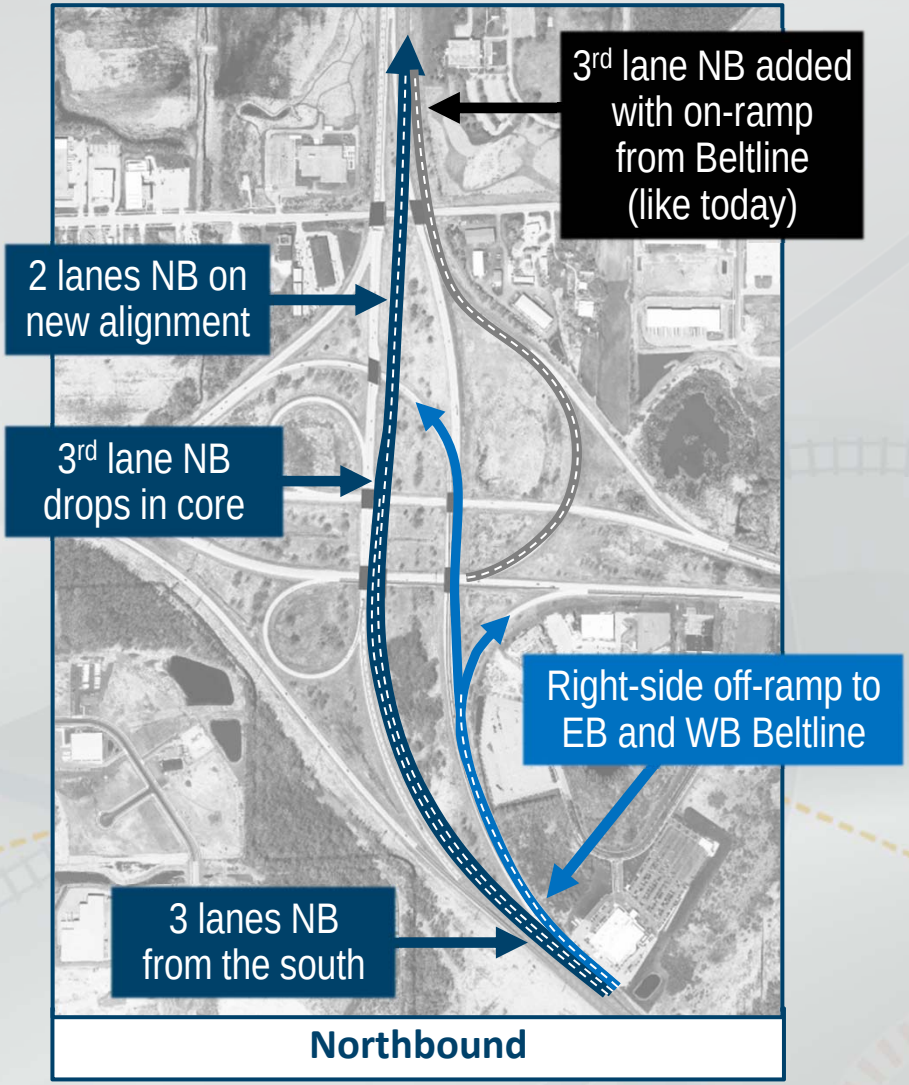

Alternative B (3 lanes NB and SB)

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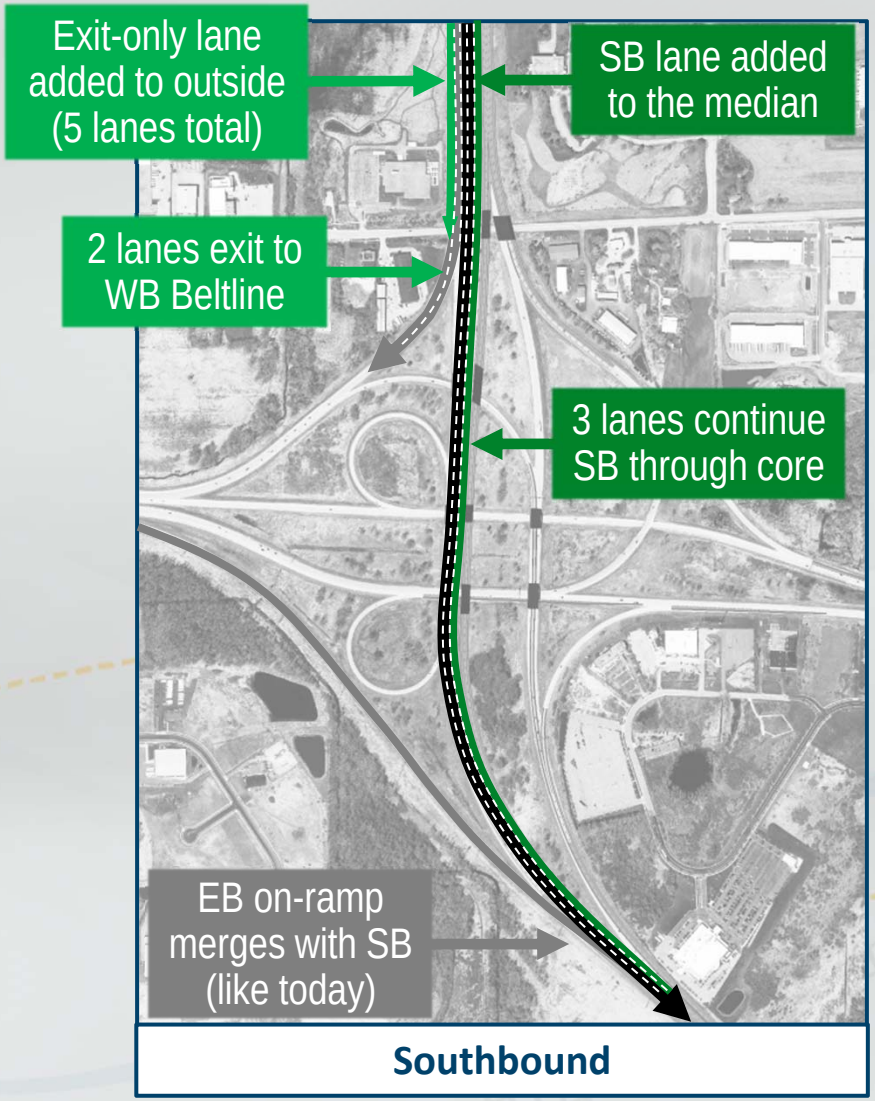

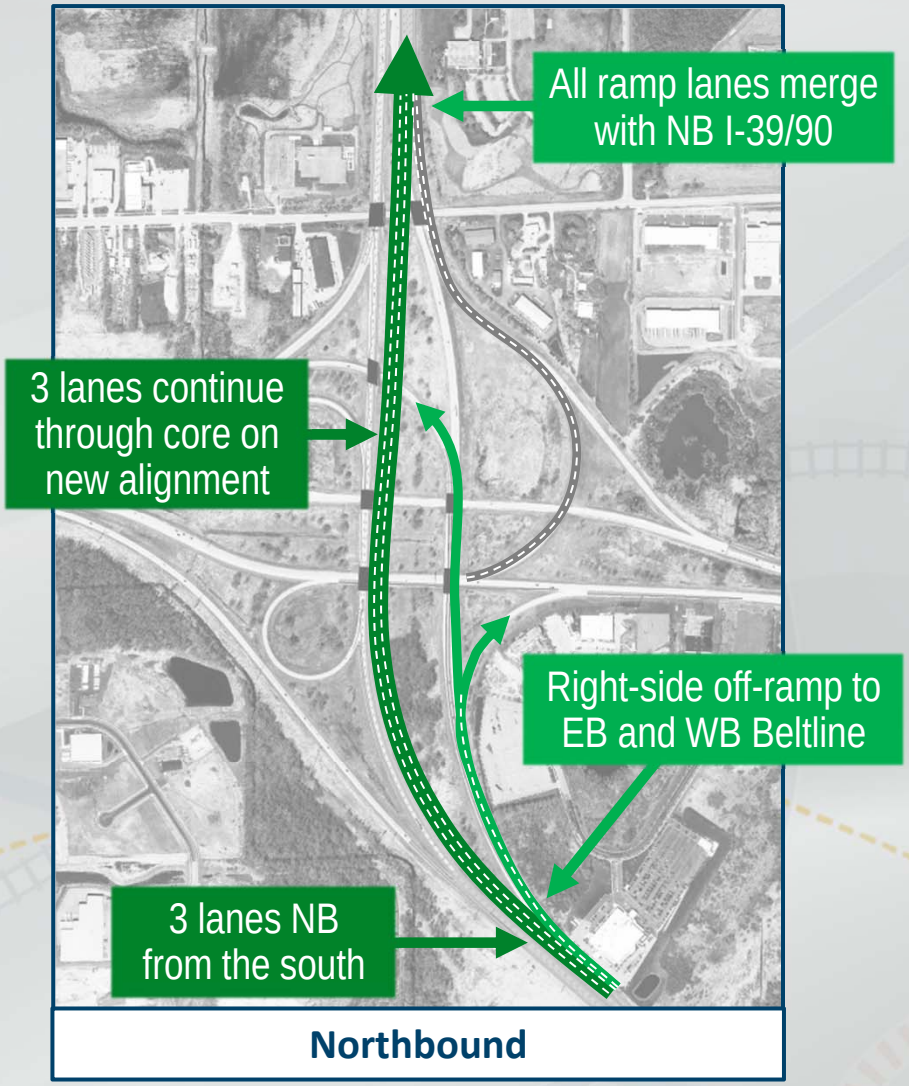

Performance-Based Practical Design

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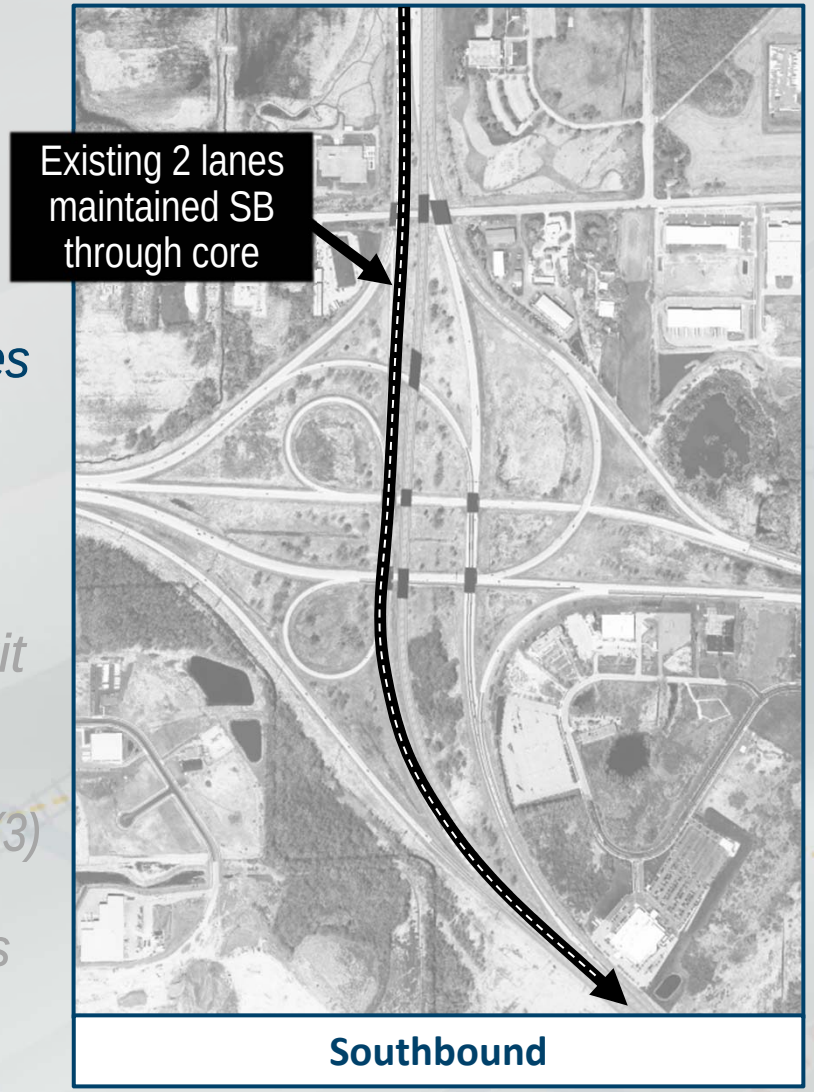
Alternatives A and B

- Build up the improvements from existing conditions.
  - o *Maintains the 2 existing southbound lanes of I-39/90, instead of fully reconstructing the roadway.*
  - o *Uses the existing northbound I-39/90 roadway for the realigned northbound exit ramp to the westbound Beltline.*
  - o *Maintains all of the existing northbound (3) and southbound (4) bridges and only widens or extends the existing structures rather than replacing them.*



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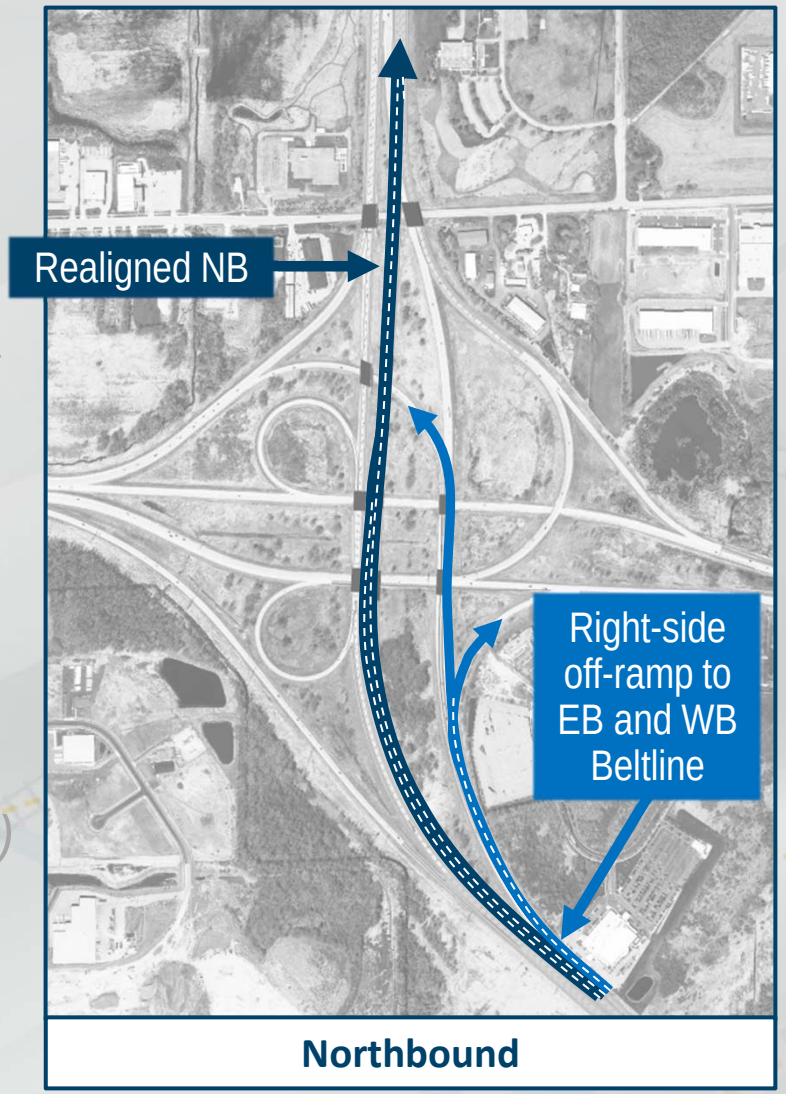

Performance-Based Practical Design

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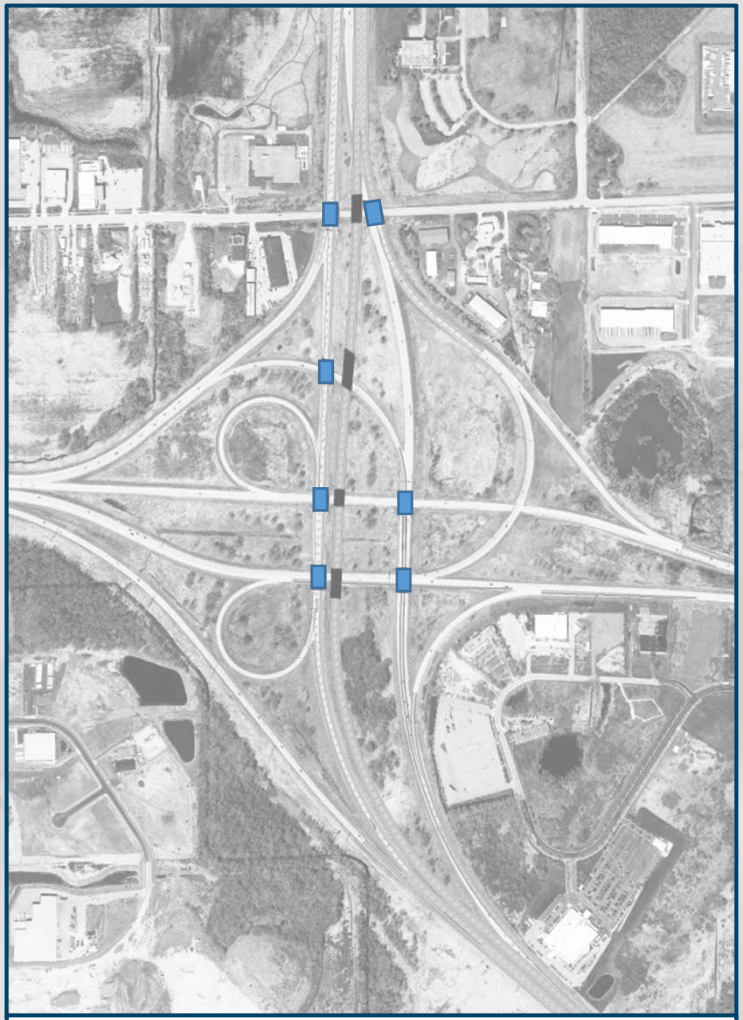
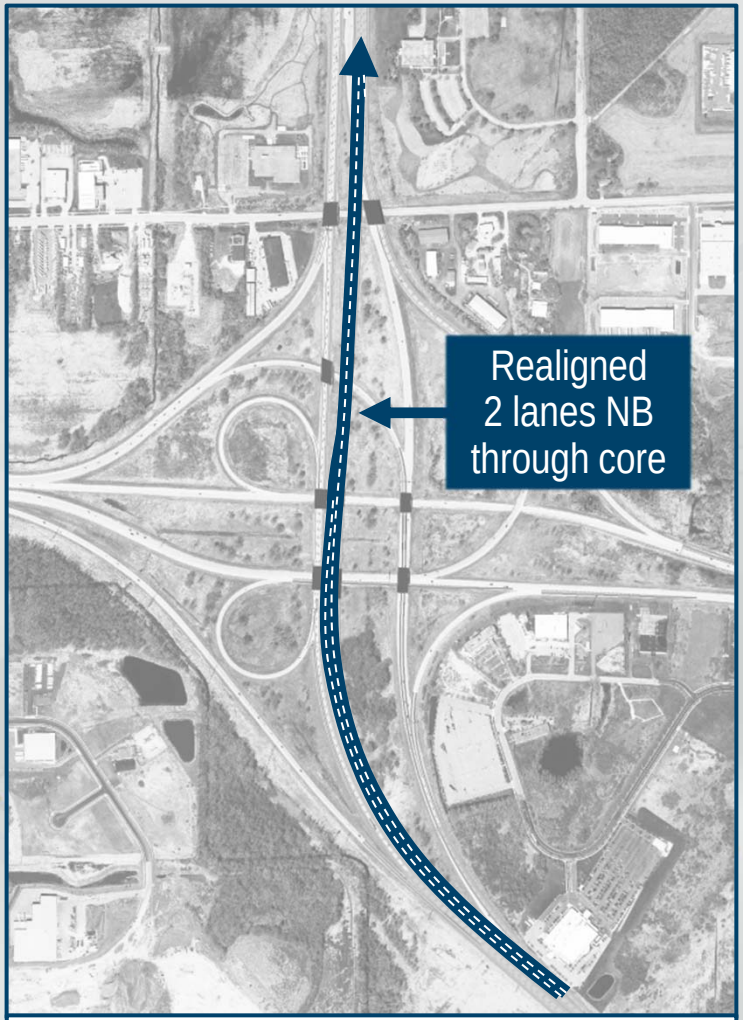


Southbound & Northbound

Performance-Based Practical Design

Alternatives A and B

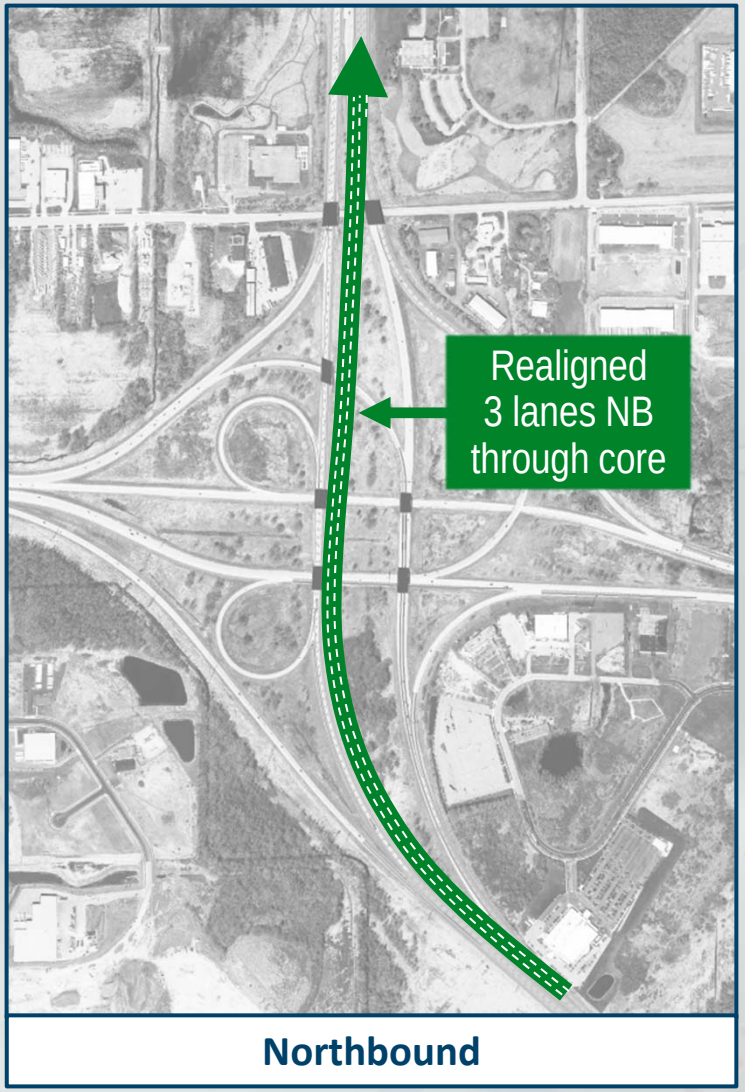
- Does not include features that provide performance exceeding the stated goals.
  - *Alternative A: only provides the number of lanes needed through the core of the Beltline Interchange to accommodate the forecasted design year (2040) traffic volume.*
  - *Alternative B: By providing a 3rd lane northbound through the core, "performance exceeds the stated goals", which in this case is lane capacity above what is needed.*



Performance-Based Practical Design

Alternatives A and B

- Does not include features that provide performance exceeding the stated goals.
  - *Alternative A: only provides the number of lanes needed through the core of the Beltline Interchange to accommodate the forecasted design year (2040) traffic volume.*
  - *Alternative B: by providing a 3rd lane northbound through the core, "performance exceeds the stated goals", which in this case is lane capacity above what is needed, and does not follow the Performance-Based Practical Design approach.*



Comparison of Alternatives

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Alternative A (2 lanes NB & SB)

- ✗ SB - Smaller safety improvement
- ✓ NB - Larger safety improvement
- ✓ Provides capacity needed for future traffic volumes (2040)
- ✓ Fewer right of way impacts (approximately 2 acres)
- ✓ Lower cost to construct

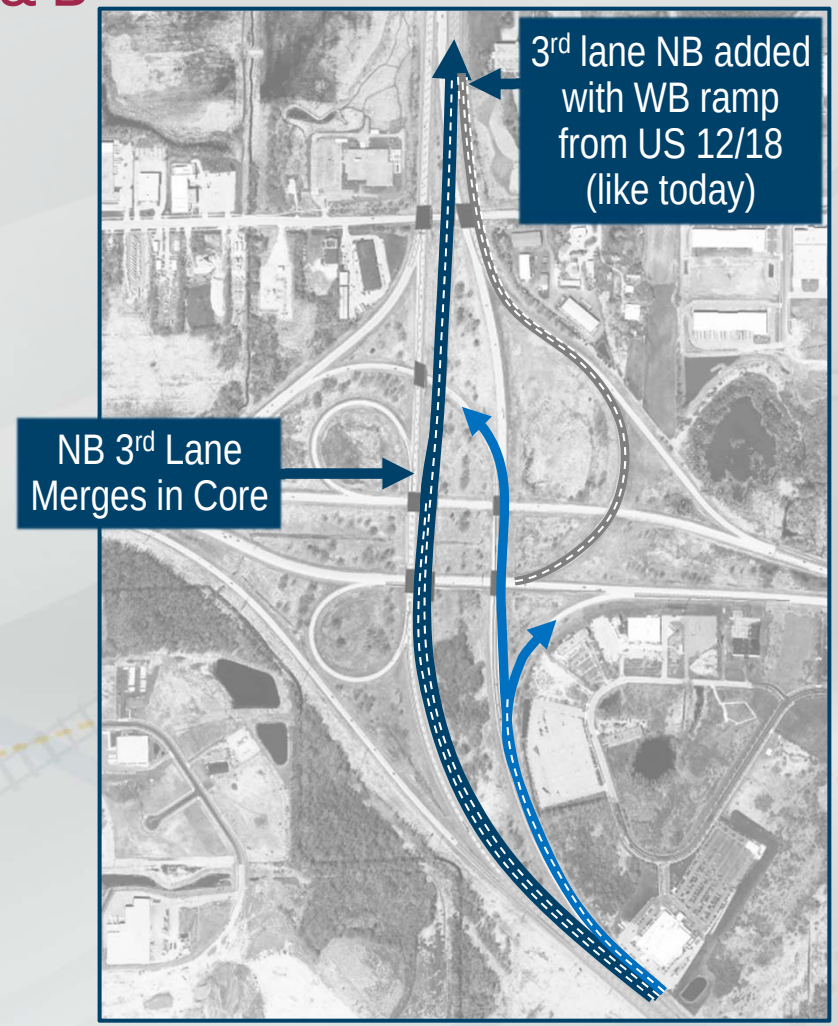
Alternative B (3 lanes NB & SB)

- ✓ SB - Larger safety improvement
- ✗ NB - Smaller safety improvement
- ✓ Provides capacity needed for future traffic volumes (2040)
- ✗ More right of way impacts (approximately 7 acres)
- ✗ Higher cost to construct

Preferred Alternative

Alternative C – Hybrid of Alternatives A & B

- Alternative A (2-lane section) is preferred in the northbound direction due to the potential for greater crash reduction, lower environmental and right of way impacts, and lower project cost.
- While Alternative B (3-lane section) has more impacts and higher cost, it is preferred in the southbound direction due to the potential for greater crash reduction.
- The recommended "hybrid" will be documented as Alternative C (2 lanes northbound, 3 lanes southbound) in the Environmental Assessment and identified as the Preferred Alternative.



Preferred Alternative

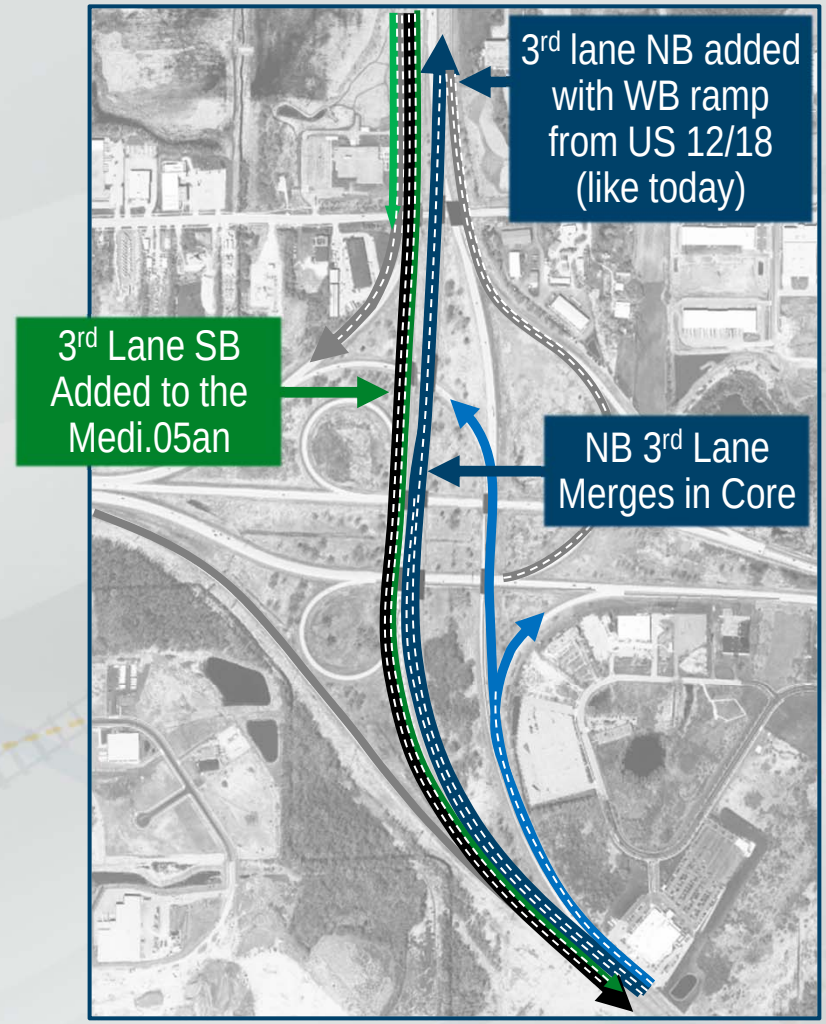
Alternative C – Hybrid of Alternatives

- Alternative A (2-lane section) is preferred in the northbound direction due to the potential for greater crash reduction, lower environmental and right of way impacts, and lower project cost.
- While Alternative B (3-lane section) has more impacts and higher cost, it is preferred in the southbound direction due to the potential for greater crash reduction.
- The recommended "hybrid" will be documented as Alternative C (2 lanes northbound, 3 lanes southbound) in the Environmental Assessment and identified as the Preferred Alternative.

Preferred Alternative

Alternative C – Hybrid of Alternatives

- Alternative A (2-lane section) is preferred in the northbound direction due to the potential for greater crash reduction, lower environmental and right of way impacts, and lower project cost.
- While Alternative B (3-lane section) has more impacts and higher cost, it is preferred in the southbound direction due to the potential for greater crash reduction.
- The recommended "hybrid" will be documented as Alternative C (2 lanes northbound, 3 lanes southbound) in the Environmental Assessment and identified as the Preferred Alternative.



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Safety Improvements

Existing Crash Analysis (2011-2015)

- 650 crashes occurred during the 5-year time period including 4 fatalities
- One crash every 3 days (2.5 crashes every week)
- Every 17 days someone is injured in a crash

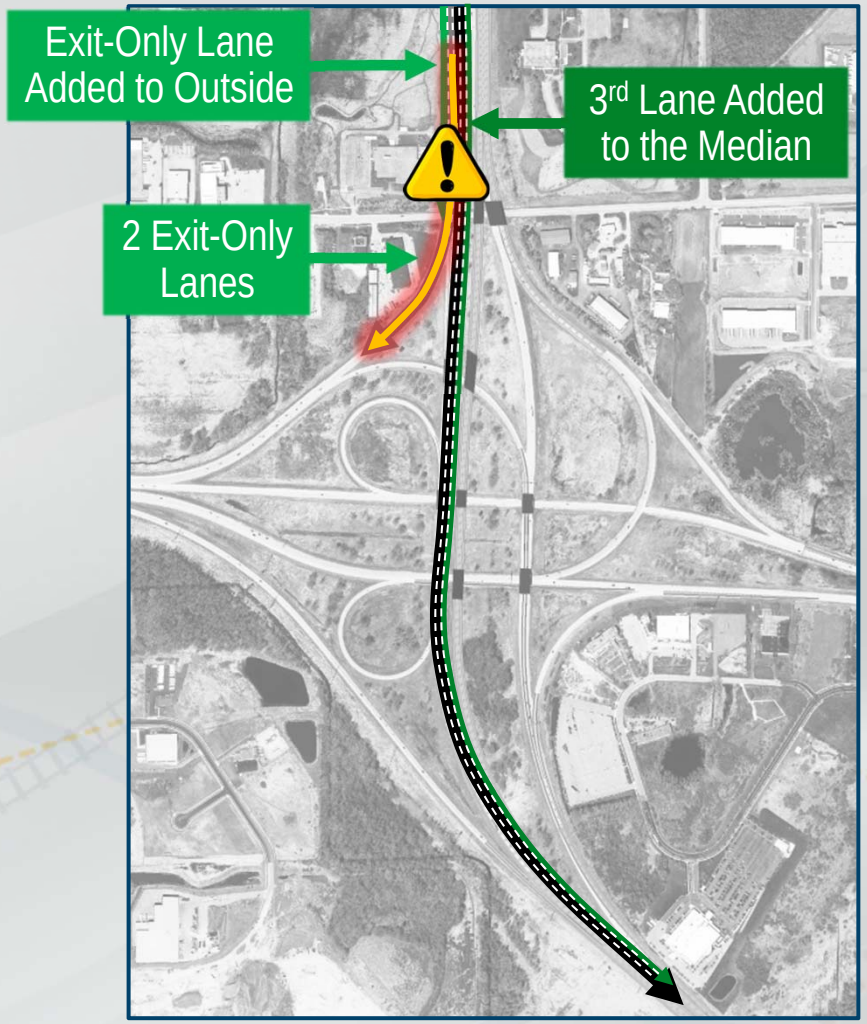
High-Crash Locations

- A location is flagged as being a “high-crash” location when the crash rate is significantly higher than the statewide average.
- There are 6 “high-crash” locations where a crash could potentially impact the safety and operations of the I-39/90 mainline.

High-Crash Location #1

Southbound I-39/90 at the diverge to westbound US 12/18

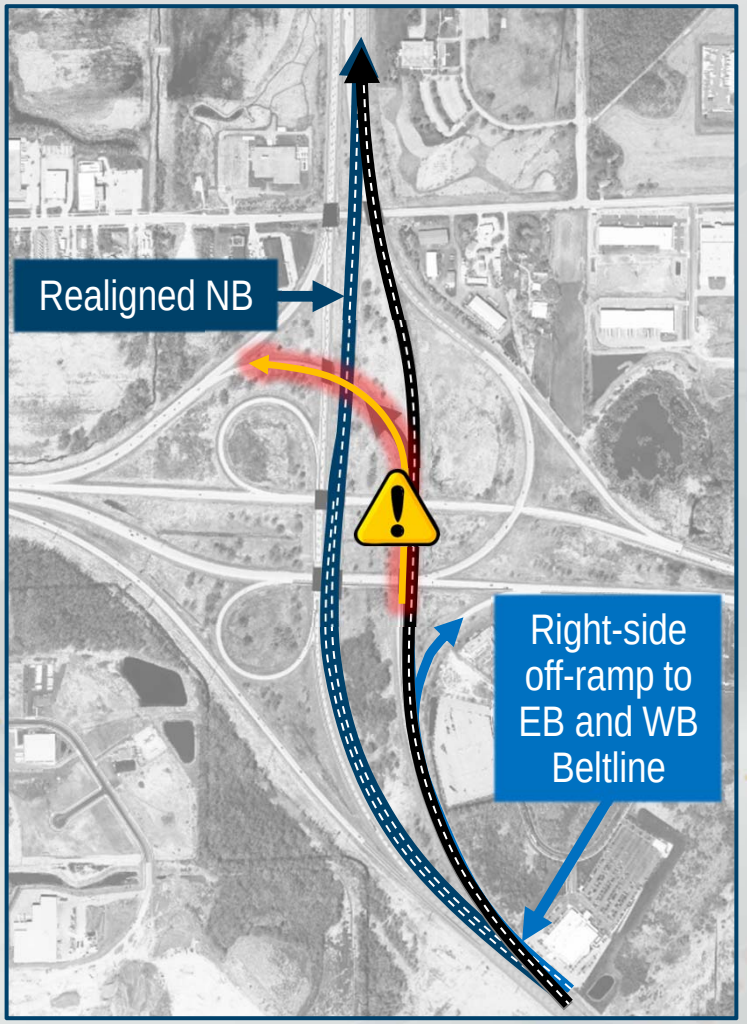
- Proposed Improvements
  - *Add southbound I-39/90 lane to the median side through the core*
  - *Add deceleration lane to the outside*
  - *Remove option lane*
  - *Improve signing for exit*



High-Crash Location #2

Northbound I-39/90 at the diverge to westbound US 12/18

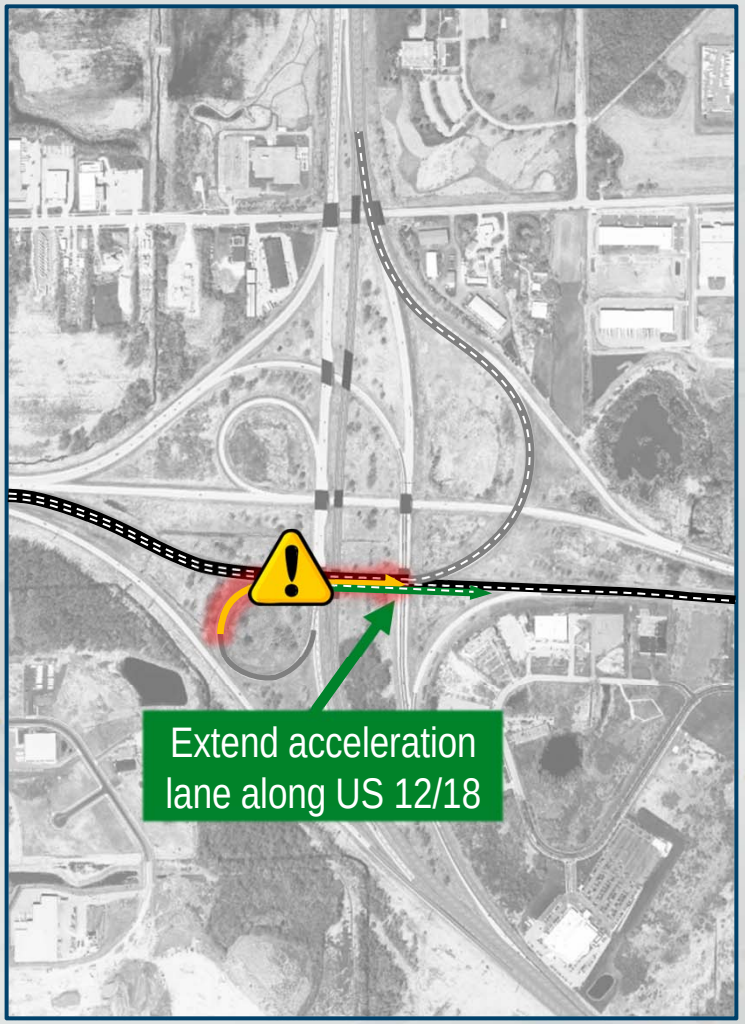
- Proposed Improvements
  - *Realign the left-side exit to the right-side*
  - *Combine the US 12/18 ramps into a single 2-lane exit from northbound I-39/90*



High-Crash Location #3

Southbound I-39/90 ramp merge with eastbound US 12/18

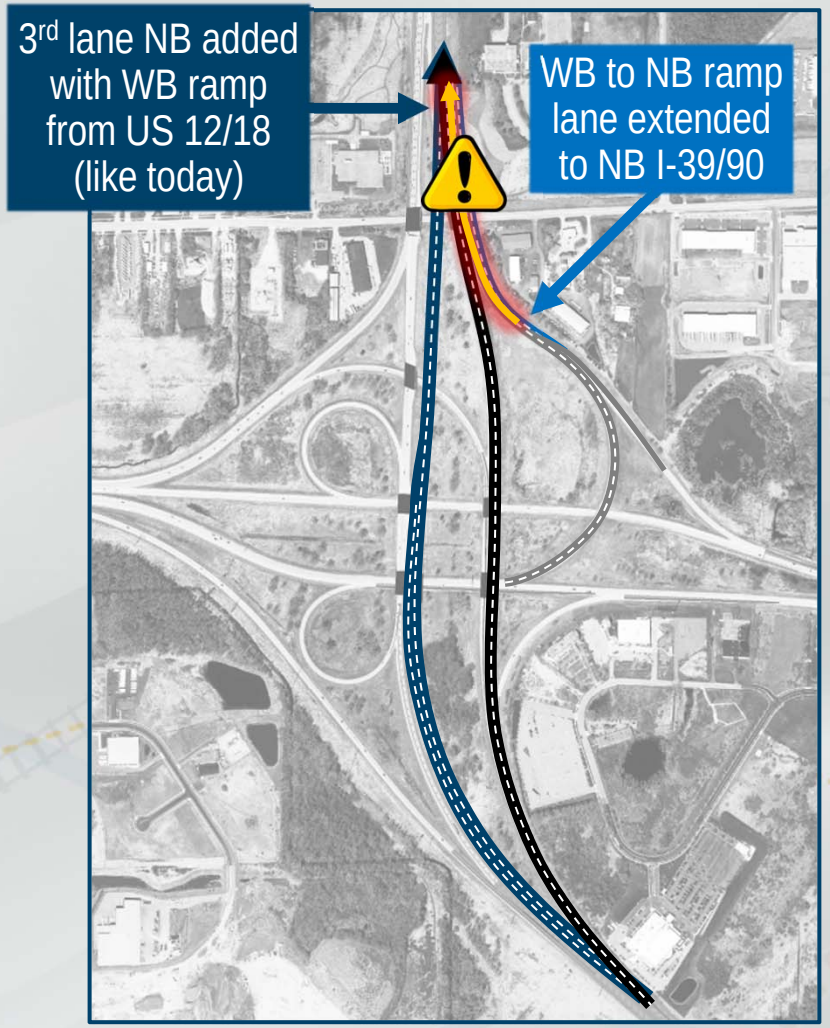
- Proposed Improvements
  - *Provide a longer acceleration lane along eastbound US 12/18*



High-Crash Location #4

US 12/18 ramp merge with northbound I-39/90

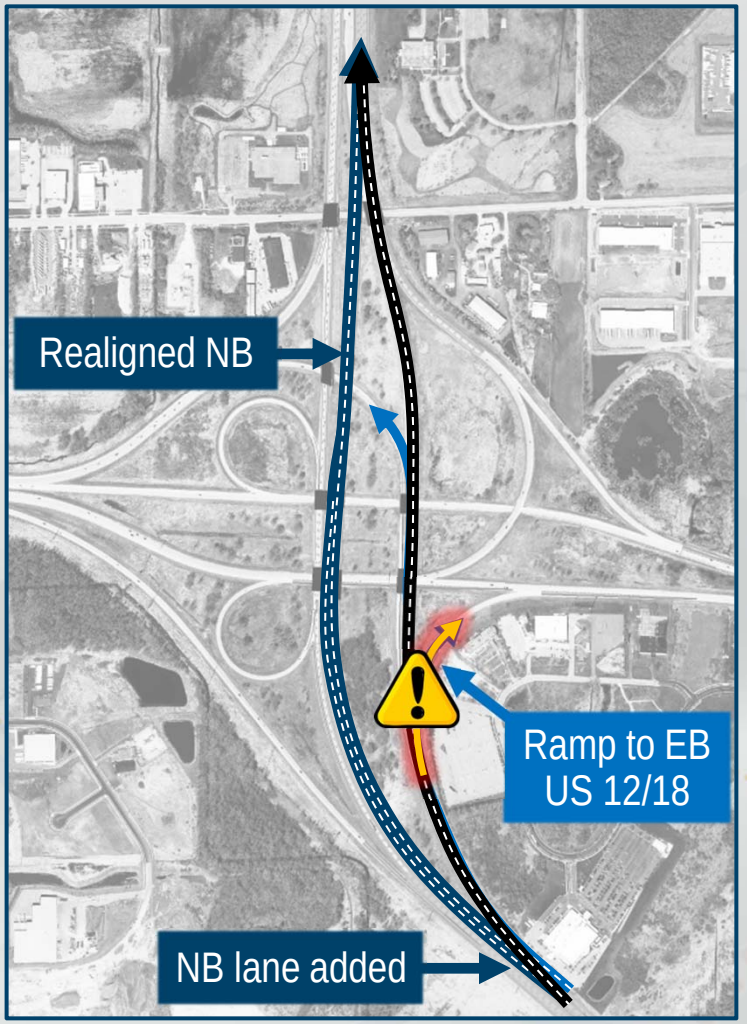
- Proposed Improvements
  - *Continue ramp lane from westbound US 12/18 instead of merging with eastbound US 12/18 through the curve*
  - *Provide longer acceleration lanes between each ramp lane drop along northbound I-39/90*



High-Crash Location #5

Northbound I-39/90 at the ramp diverge to EB US 12/18

- Proposed Improvements
  - *3rd lane added to northbound I-39/90*
  - *Combine the US 12/18 ramps into a single 2-lane exit from northbound I-39/90*
  - *Provide longer deceleration lanes*



High-Crash Location #6

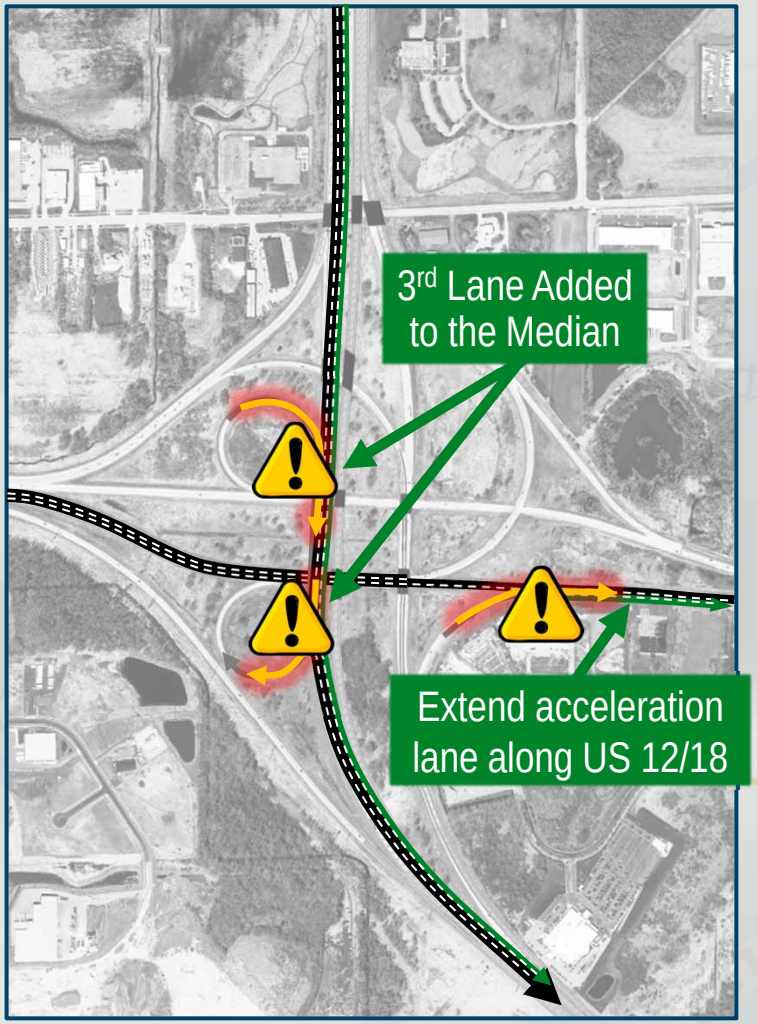
Northbound & southbound I-39/90 south of the interchange

- Proposed Improvements
  - *3rd lane added northbound and southbound with ongoing I-39/90 reconstruction project to Illinois State Line*

Safety Improvements

3 Additional Crash Locations Above Statewide Average

- Proposed Improvements
  - *Third lane added to median along southbound I-39/90*
    - *Provides additional capacity along the Interstate at the entrance from westbound US 12/18 and the exit to eastbound US 12/18*
  - *Extend acceleration lane along eastbound US 12/18*



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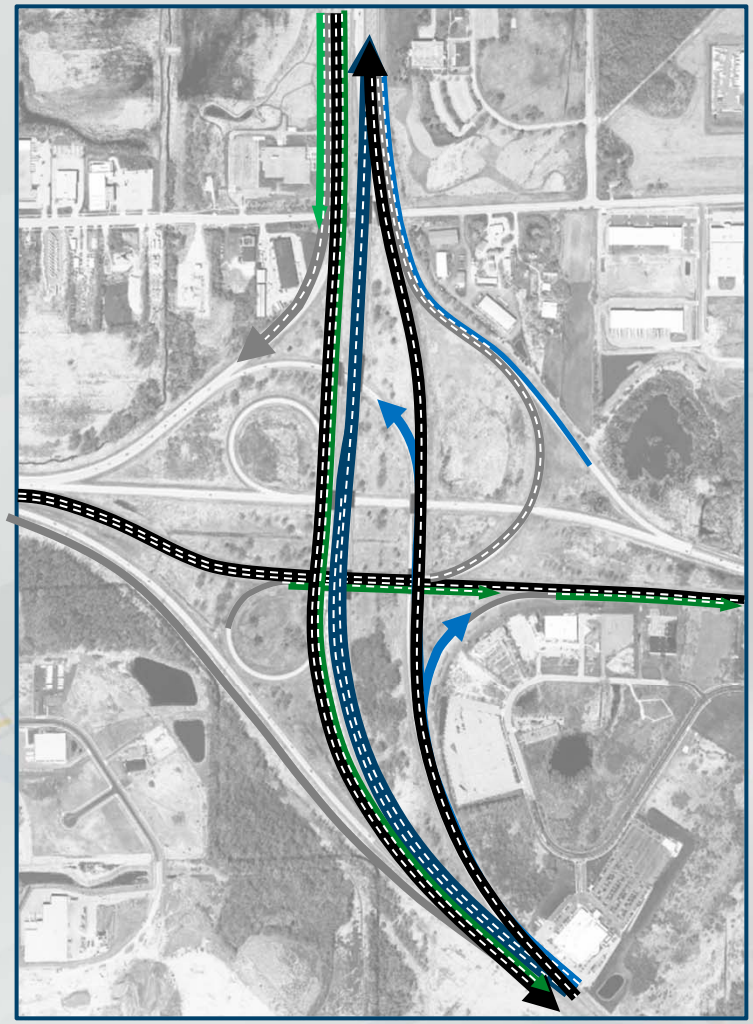
Traffic & Operations

Improvements – Preferred Alternative

- Operations Improvements Include:
  - *Lane additions along I-39/90*
  - *Lane addition on US 12/18 ramp to northbound I-39/90*
  - *Extension of acceleration and deceleration lanes*
- Video for northbound I-39/90 2 lanes vs 3 lanes in core of interchange



Traffic & Operations

Northbound I-39/90 2 Lanes vs 3 Lanes in Core of Interchange

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Next Steps

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December 13, 2018 → Public Hearing

January 11, 2019 → Comment Period Ends

March 2019 → Anticipated Final Environmental Decision

2020 → Begin construction in core of Beltline Interchange
(minimal impacts to traffic anticipated)

2021 → Complete construction of the Beltline Interchange and
45-mile I-39/90 Corridor to Illinois State Line

Public Verbal Testimony

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When you are called to the microphone, please state your:

- Name
- Address
- Group, organization, or business that you are representing (if applicable)
- Testimony will be limited to 3 minutes per person
- Public testimony will continue until everyone has had the opportunity to speak or until the public hearing ends at 6:30 p.m., whichever comes first.