



**Loudoun County**



**VIRGINIA**

WHERE TRADITION MEETS INNOVATION

# Route 50 Corridor Safety and Operational Study

Focus Group Meeting #3  
October 29, 2024

- 1) Introductions & Overview
- 2) Recent Activity
- 3) Corridor Challenges to Address
- 4) Mid-term Improvements
- 5) Long-term Improvements
- 6) Near-term Next Steps
- 7) Open Discussion

## Agenda

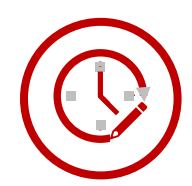




# 1) Introductions and Overview

- Welcome and opening remarks
- Roll call
  - Study team
  - Focus group members
- Handout review





## 2) Recent Activity

- Activity since last Focus Group meeting
  - Obtained VDOT concurrence on short and mid-term improvements
  - Obtained Fauquier County concurrence on improvements west of Middleburg
  - Analyzed future year (2040) traffic operations
  - Developed preliminary long-term improvement alternatives
    - Intersections
    - Shared Use Path

### Short-term Improvements

- Low-cost, easily implemented
- Typically signs and pavement markings at spot locations

### Mid-term Improvements

- Require time for more analysis, design, and construction
- Sometimes require additional right-of-way

### Long-term Improvements

- Based on future year 2040 traffic volumes
- Require time for more analysis, design, right-of-way, and construction

# 3) Corridor Challenges to Address

- Address problems identified from
  - Focus Group and Public Input
    - Speeding/aggressive driving
  - Corridor crash history
    - Rear end crashes are the most predominant crash type on the corridor
  - 2040 travel patterns
    - Modest growth corridor-wide
    - More growth on corridor between Route 15 and Watson Road
    - North-south travel pattern between Route 15 and Watson Road



# 3) Corridor Improvement Concepts

- Philosophical framework for identifying and evaluating proposed improvements
- Optimal solutions for the Route 50 Corridor will
  - Address existing and estimated future safety and operations needs
  - Focus improvements only on areas with defined problems or deficiencies
  - Maintain the corridor's prominence as an asset to the community
  - Be compatible with the natural and built environment
  - Prioritize stakeholder interests in safety and enhancing rural/historic character



## 4) Mid-term Improvements

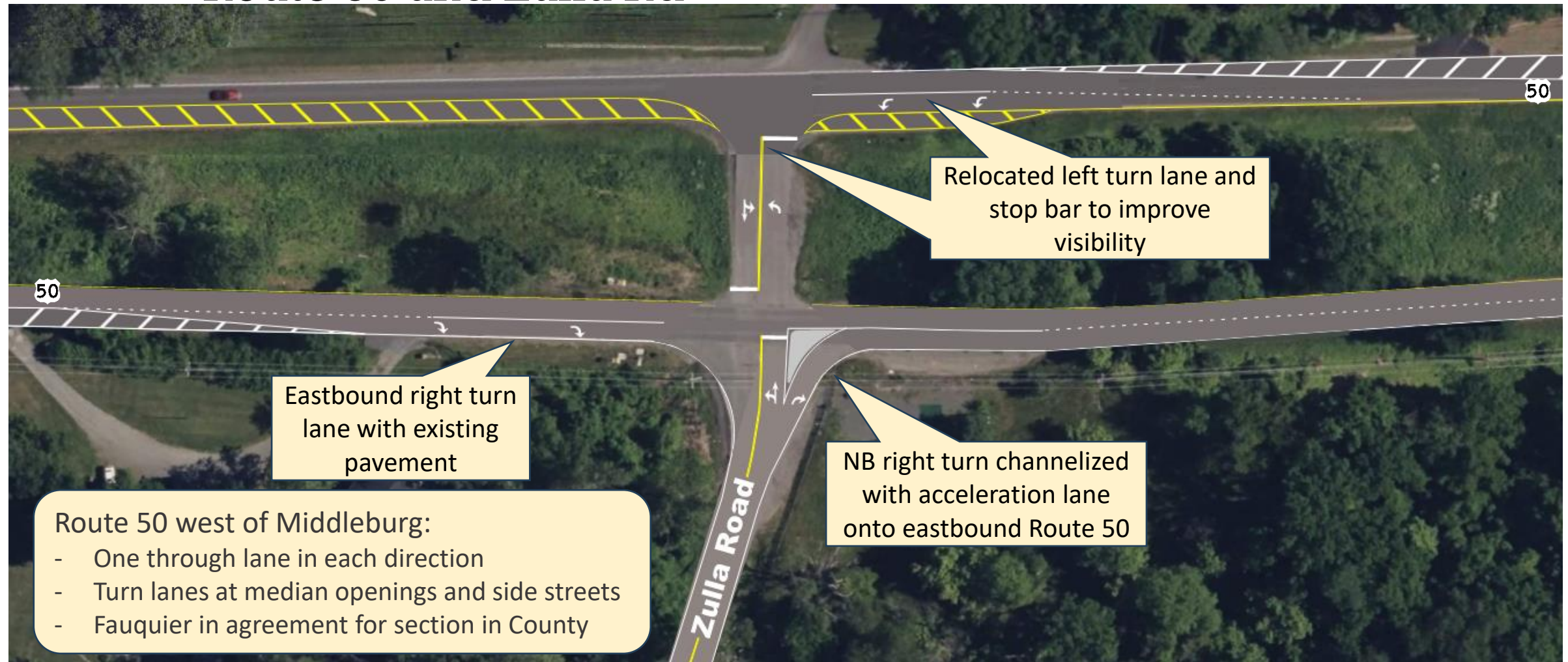
- 4-lane section of Route 50 west of Middleburg
- Zulla Road intersection





# 4) Mid-term Improvements

## Route 50 and Zulla Rd



Relocated left turn lane and stop bar to improve visibility

Eastbound right turn lane with existing pavement

NB right turn channelized with acceleration lane onto eastbound Route 50

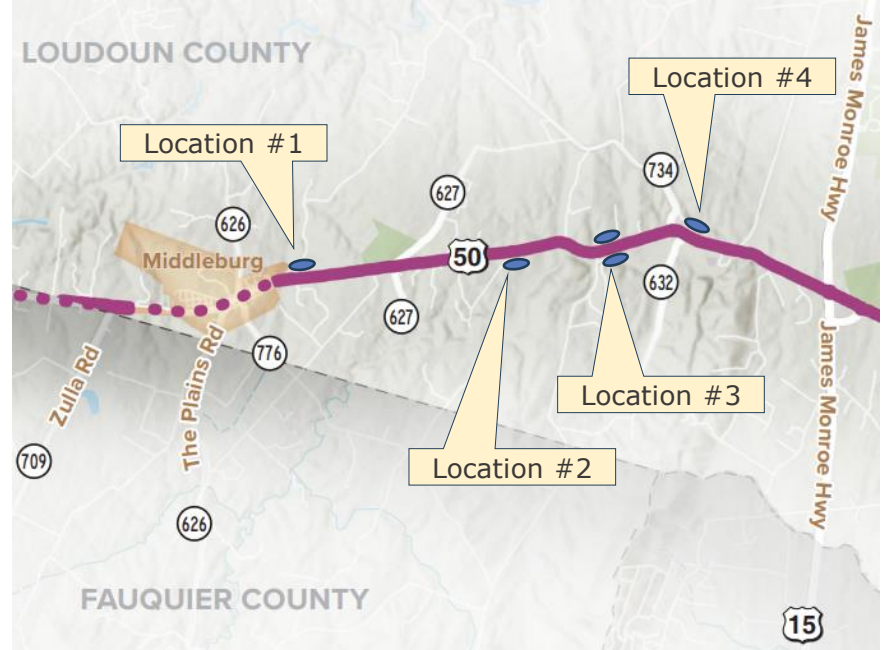
Route 50 west of Middleburg:  
- One through lane in each direction  
- Turn lanes at median openings and side streets  
- Fauquier in agreement for section in County





# 4) Mid-term Improvements

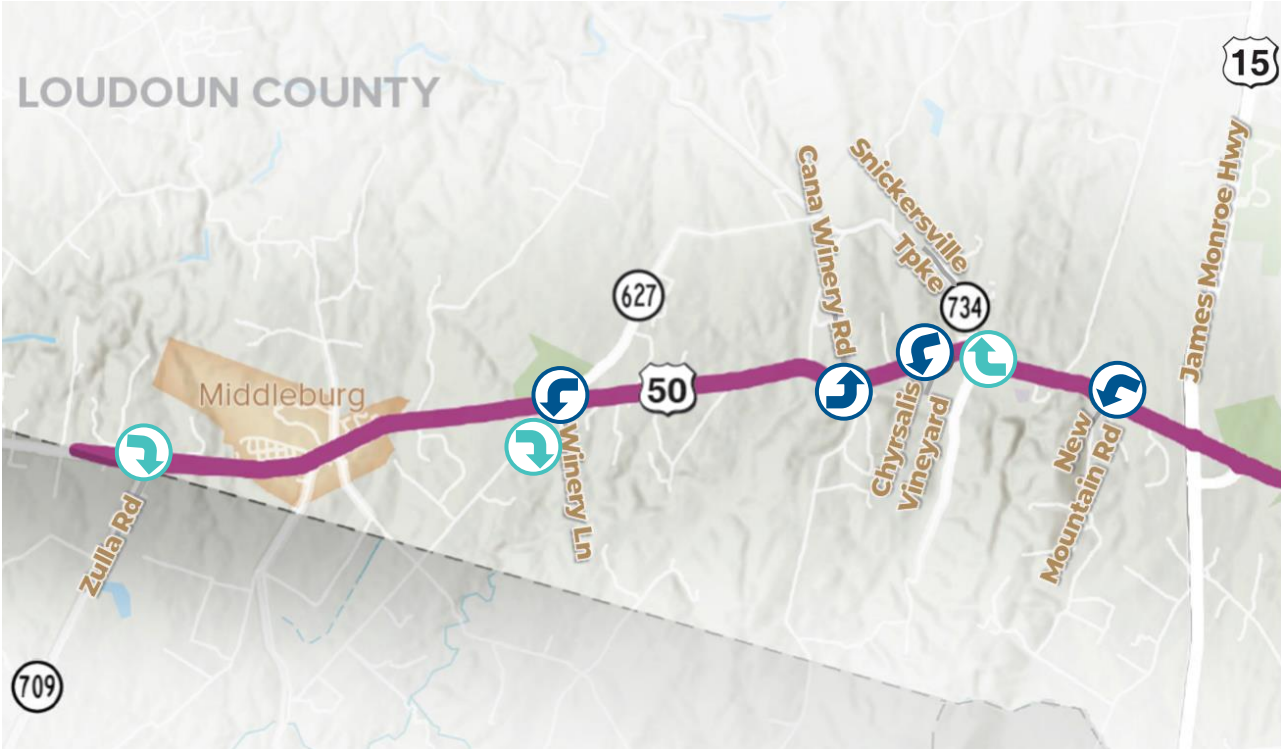
- Law enforcement pull-off areas
  - Spot shoulders (50-75-ft long) with tapers
  - For conducting traffic enforcement activities
- Identified locations in partnership with the Loudoun County Sheriff's Office (LCSO)
  - Leveraging input from Focus Group and public regarding locations with driver behavior issues
  - Locations where LCSO's ability to enforce is limited due to physical constraints







# 4) Mid-term Improvements

- Turn lanes on Route 50
- Turn lanes improve safety by reducing conflicts with slowing or stopped vehicles that are turning
  - Prevent rear end crashes and angle crashes – two prevalent crash types on Route 50
- Route 50 is classified as an Arterial
  - Countywide Transportation Plan calls for left and right turn lanes at intersections on Arterials
- Proposing turn lanes only where warranted

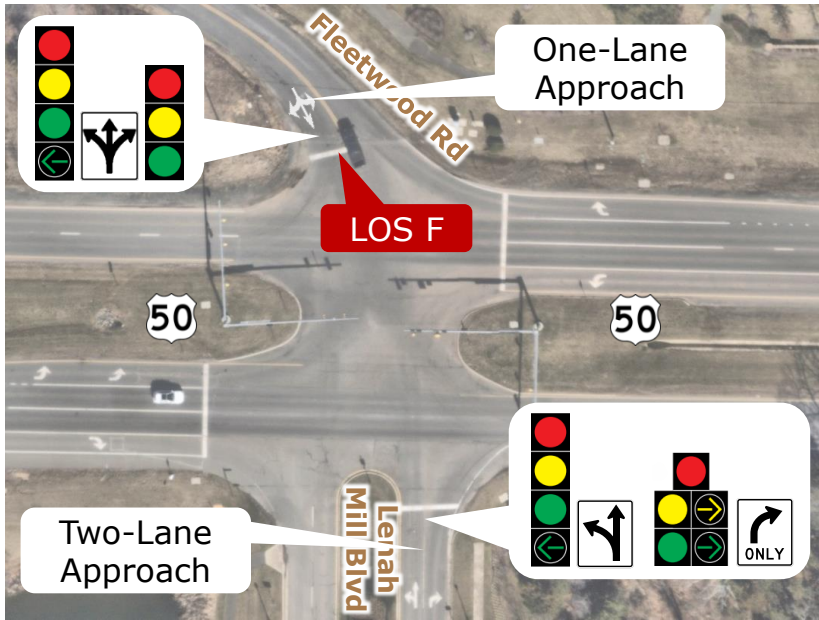


-  Left-turn bay on Route 50
-  Right-turn bay/taper on Route 50

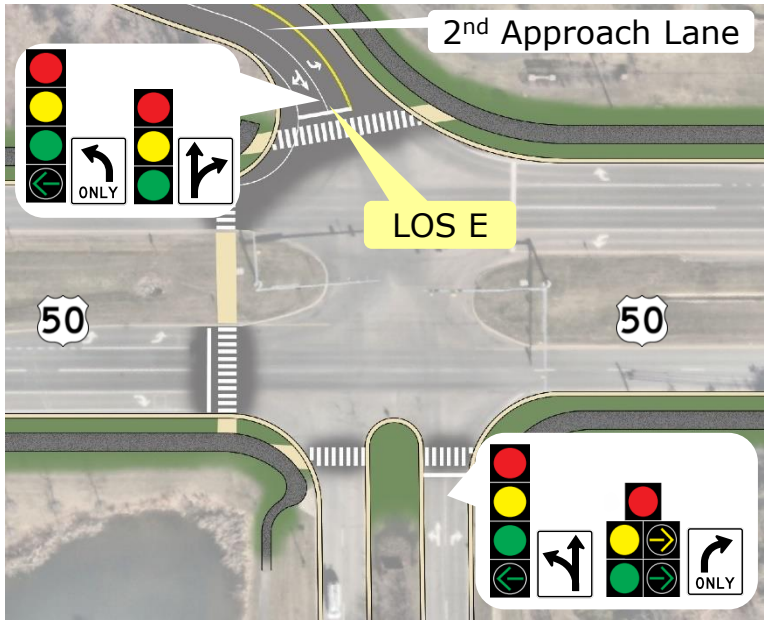


# 5) Long-term Improvements

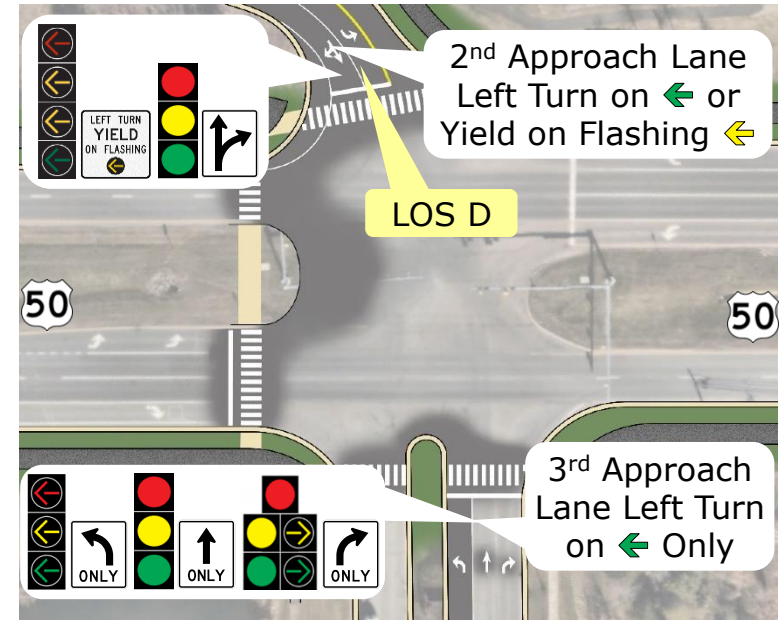
## Route 50 and Fleetwood Road/Lenah Mill Boulevard



2040 No-Build



Alternative A



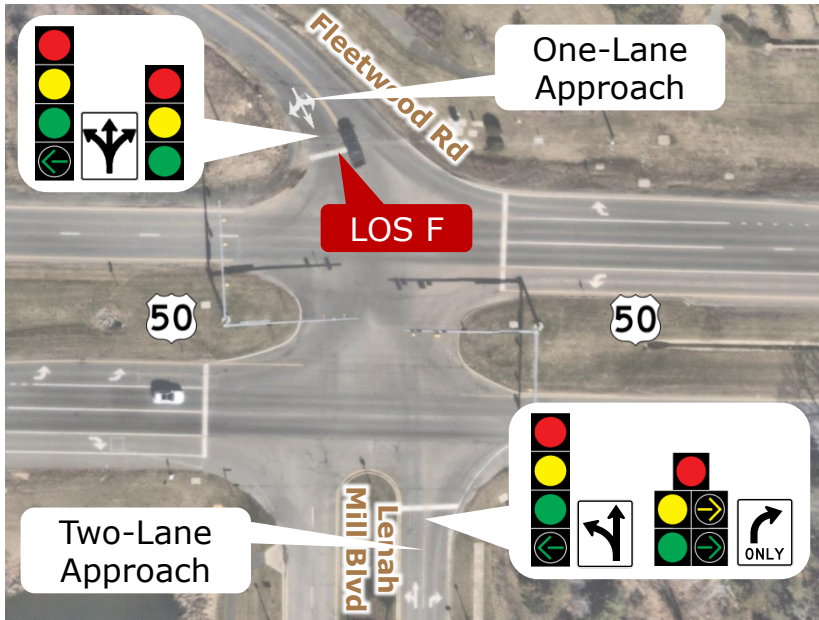
Alternative B

- 2040 No-Build operates at LOS F on southbound approach
- Alternatives A and B improve southbound approach to LOS E and LOS D, respectively



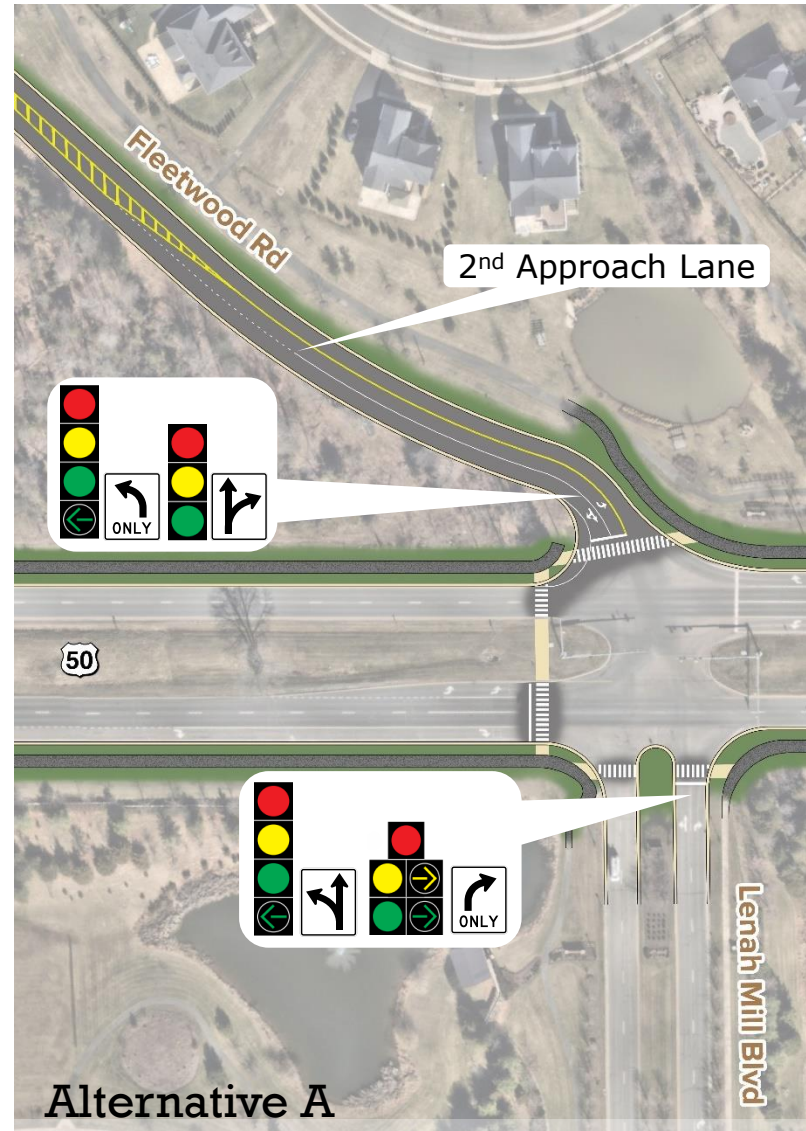
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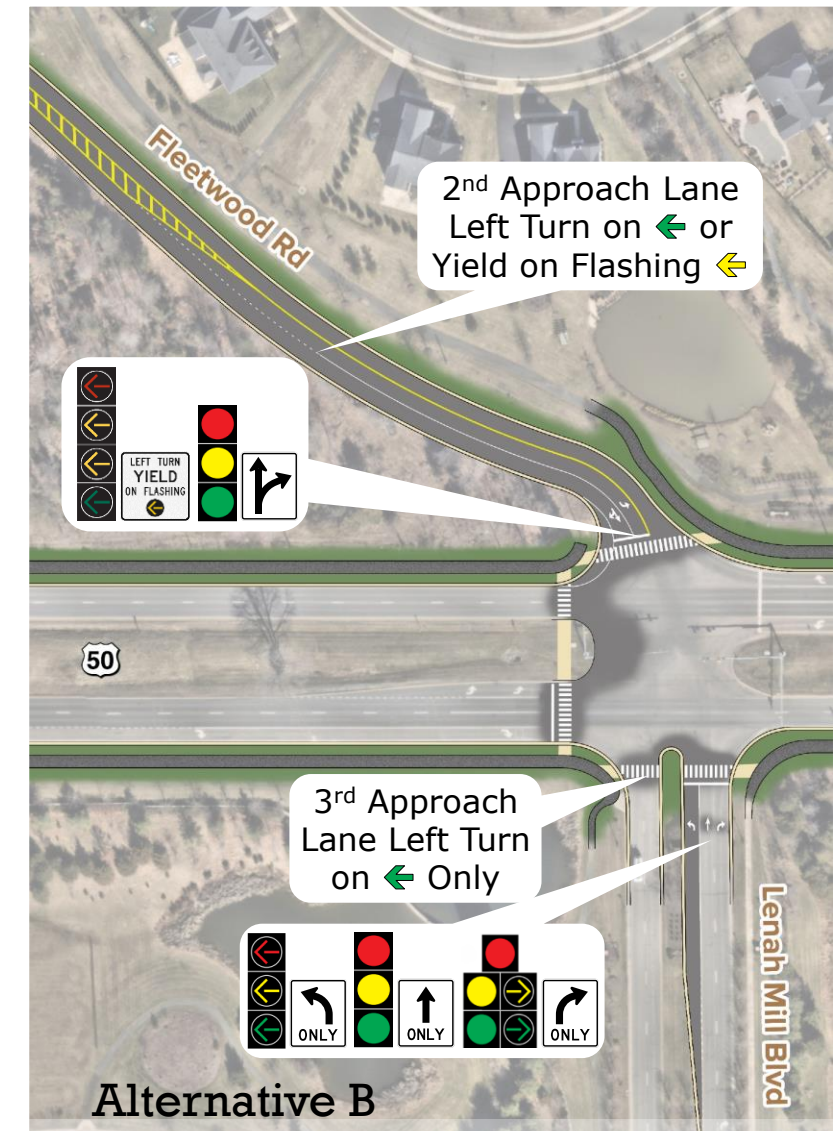


2040 No-Build

11a



Alternative A



Alternative B

*All elements of this conceptual design are planning-level, based on desktop analysis. All assumptions and parameters must be re-evaluated during the detailed design process.*

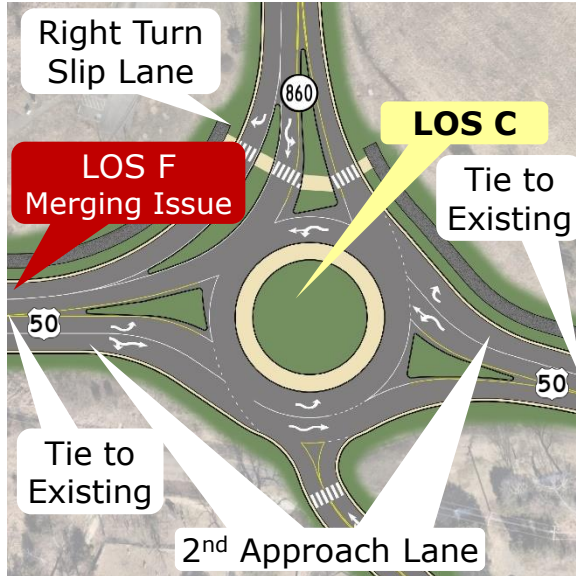


# 5) Long-term Improvements

## Route 50 and Watson Road



2040 No-Build



Alternative A



Alternative B



Alternative C

- 2040 No-Build operates at overall LOS F during both peak hours
- Alternatives A and B improve overall operations to LOS C, but southbound right turn operates at LOS F
- Alternative C improves both (overall and southbound right turn) to LOS A

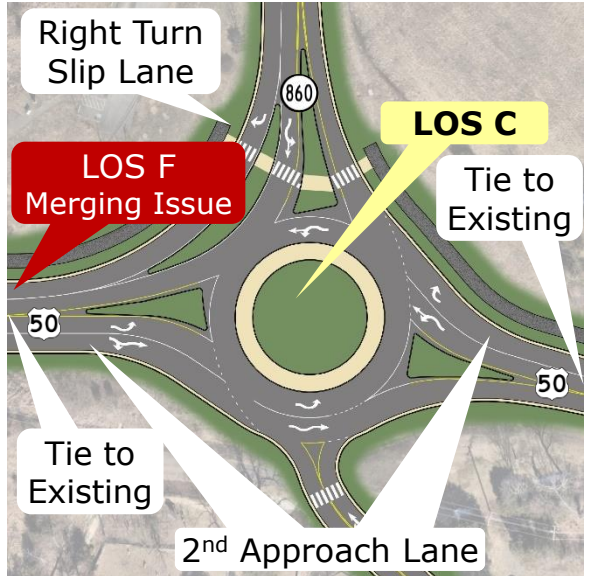


# 5) Long-term Improvements

## Route 50 and Watson Road



2040 No-Build



Alternative A



Alternative B



Alternative C



12a

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# 5) Long-term Improvements

## Route 50 and Watson Road



2040 No-Build



Alternative A



Alternative B



Alternative C



12b

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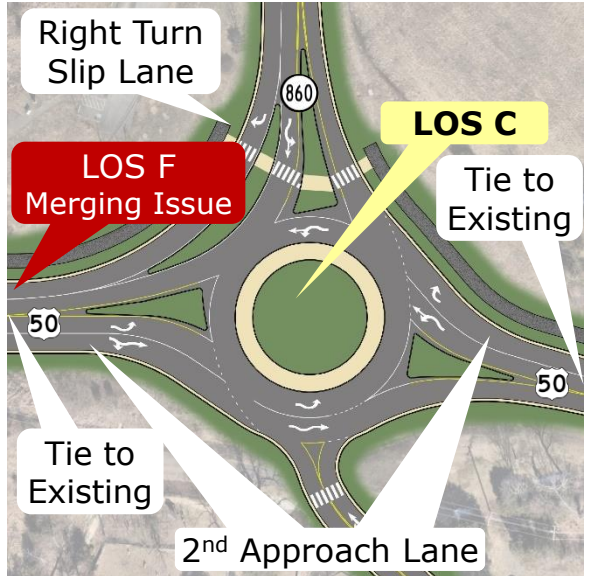


# 5) Long-term Improvements

## Route 50 and Watson Road



2040 No-Build  
Alternative C



Alternative A



Alternative B



Alternative C



12c

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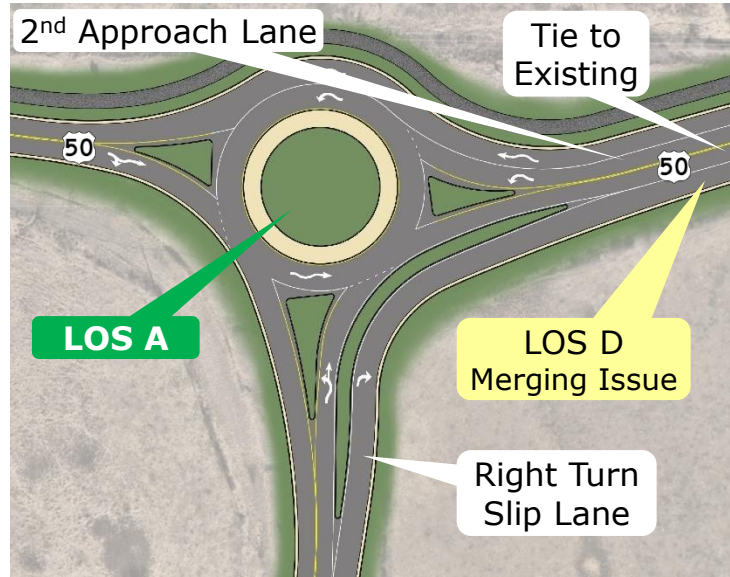


# 5) Long-term Improvements

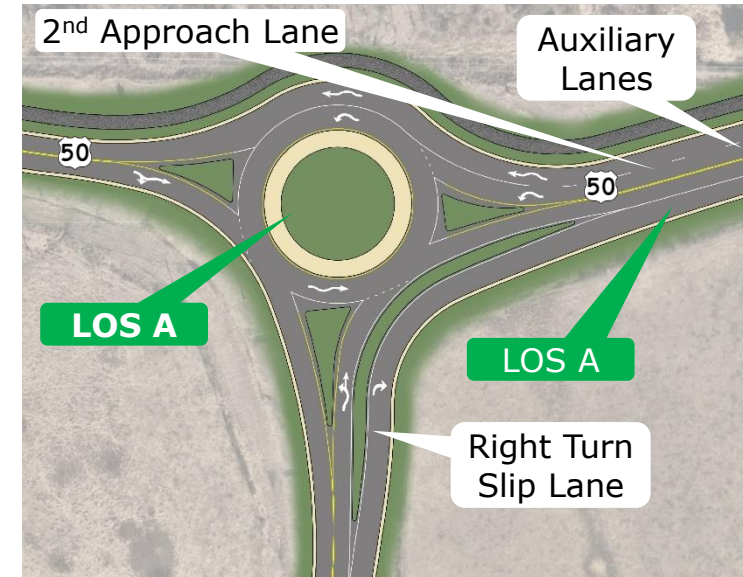
## Route 50 and Howsers Branch Drive



2040 No-Build



Alternative A



Alternative B

- 2040 No-Build operates at overall LOS F during both peaks
- Alternative A improves overall operations to LOS A, but northbound right turn operates at LOS D
- Alternative B improves both (overall and northbound right turn) to LOS A

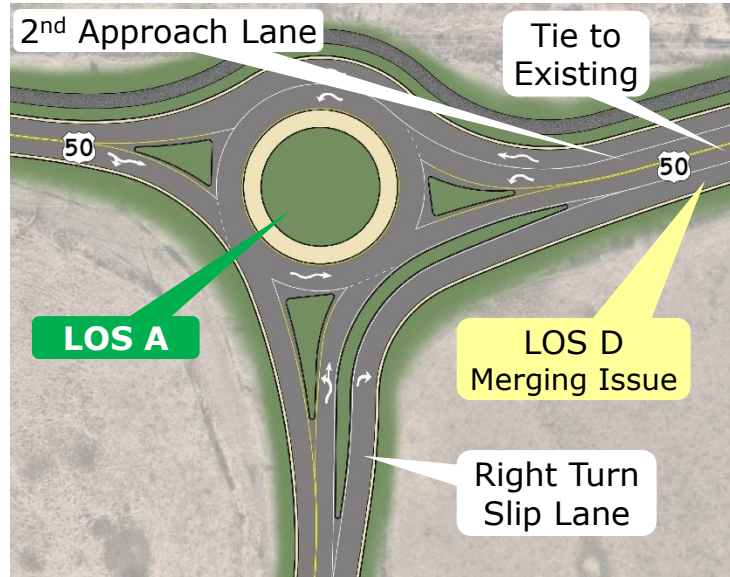


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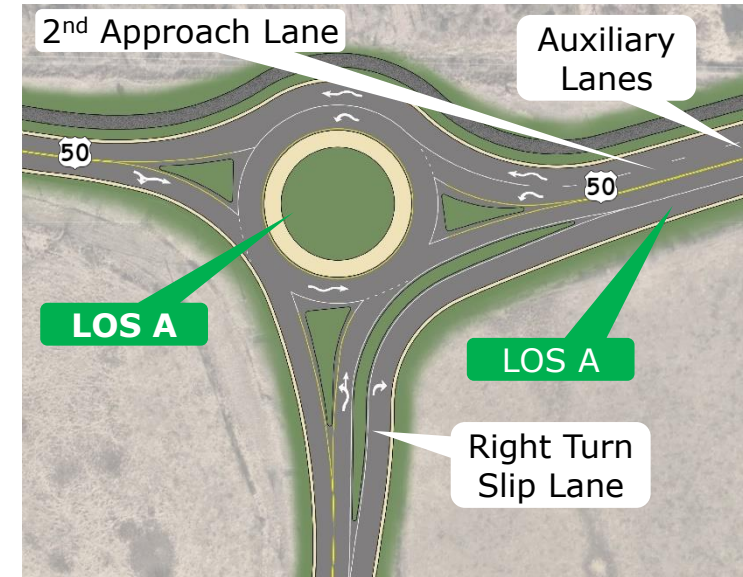
## Route 50 and Howsers Branch Drive



2040 No-Build



Alternative A



Alternative B



Alternative A

13a

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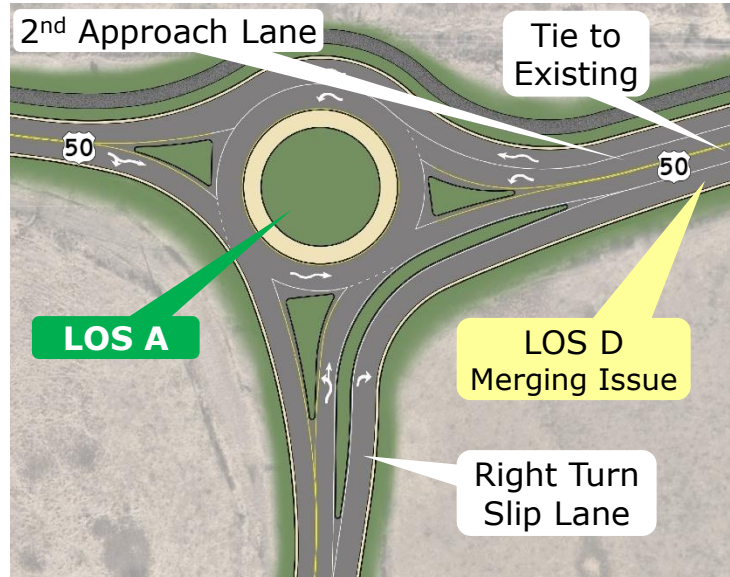


# 5) Long-term Improvements

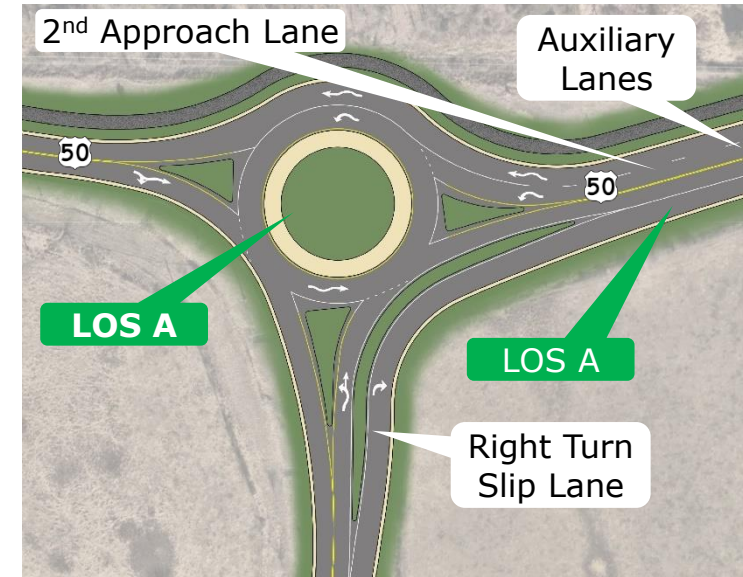
## Route 50 and Howsers Branch Drive



2040 No-Build



Alternative A



Alternative B



Alternative B

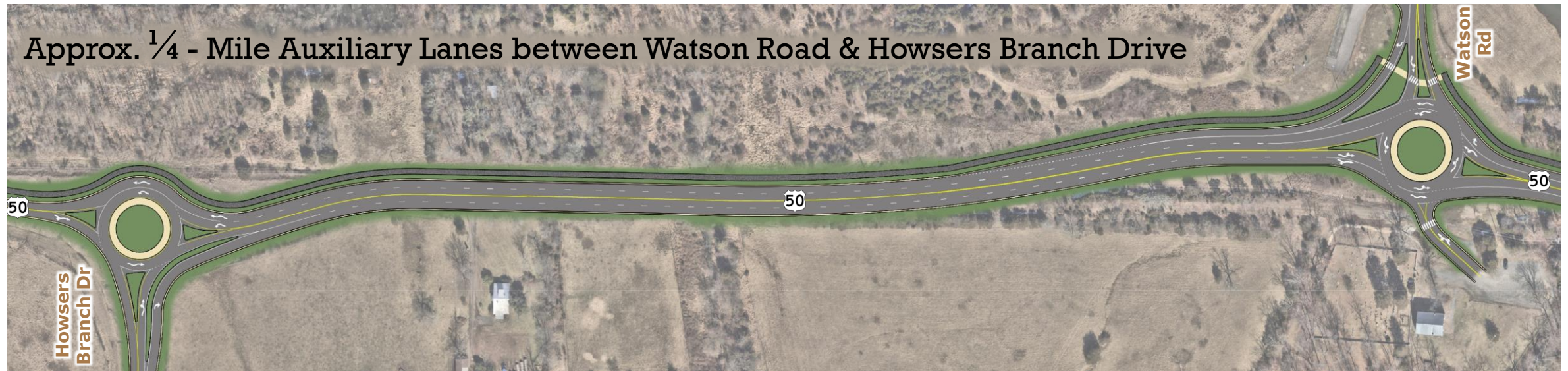
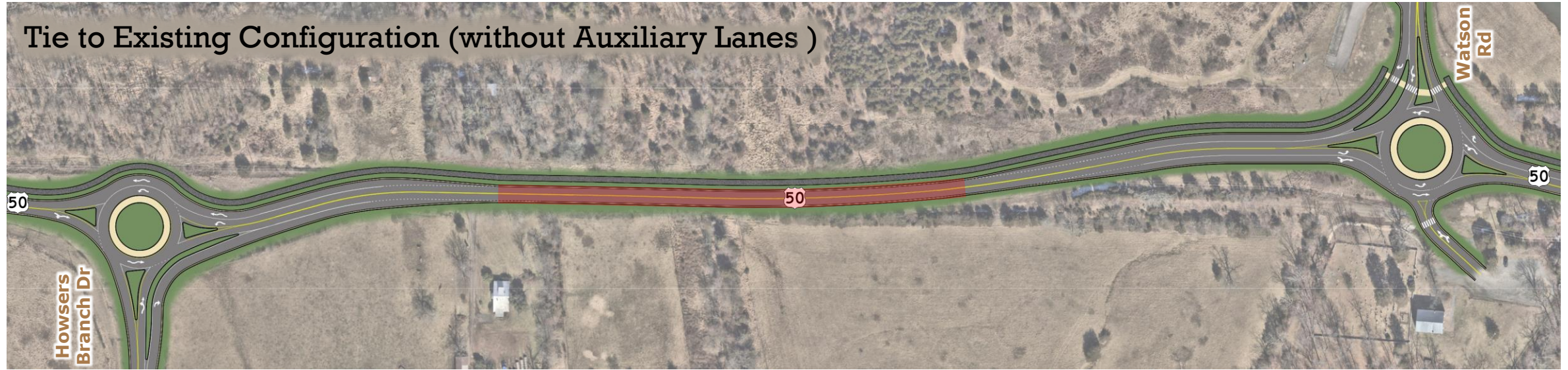
13b

All elements of this conceptual design are planning-level, based on desktop analysis. All assumptions and parameters must be re-evaluated during the detailed design process.



# 5) Long-term Improvements

## Route 50 between Watson Road & Howsers Branch Drive





# 5) Long-term Improvements

## Route 50 and Route 15



2040 No-Build



Alternative A



Alternative B

- 2040 No-Build operates at overall LOS F during both peaks
- Alternative A improves overall operations to LOS C, but northbound approach operates at LOS F (*with considerably reduced delay compared to No-Build*)
- Alternative B improves overall to LOS A and northbound approach to LOS C

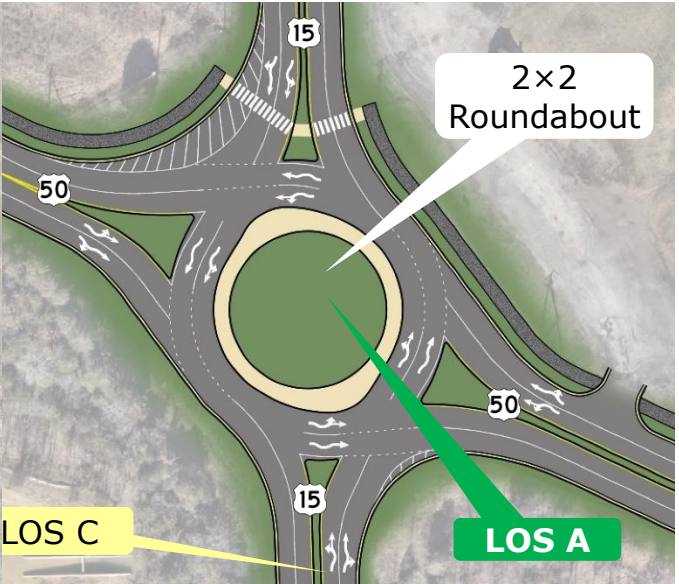


# 5) Long-term Improvements

## Route 50 and Route 15



2040 No-Build



Alternative B

15a

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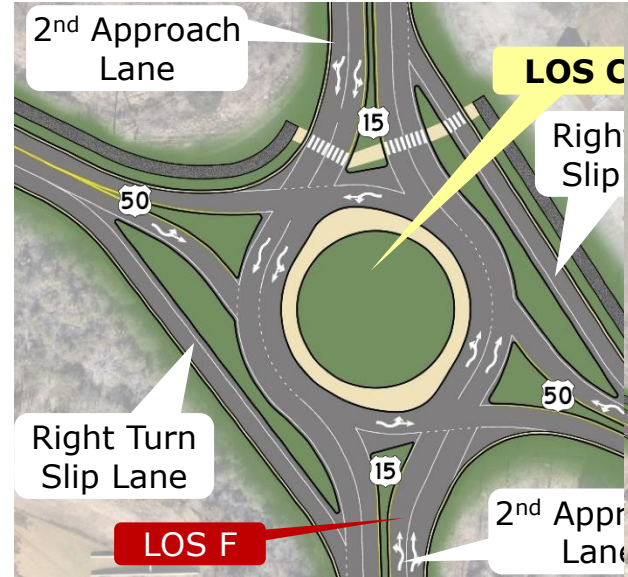


# 5) Long-term Improvements

## Route 50 and Route 15



2040 No-Build



Alternative A



15b

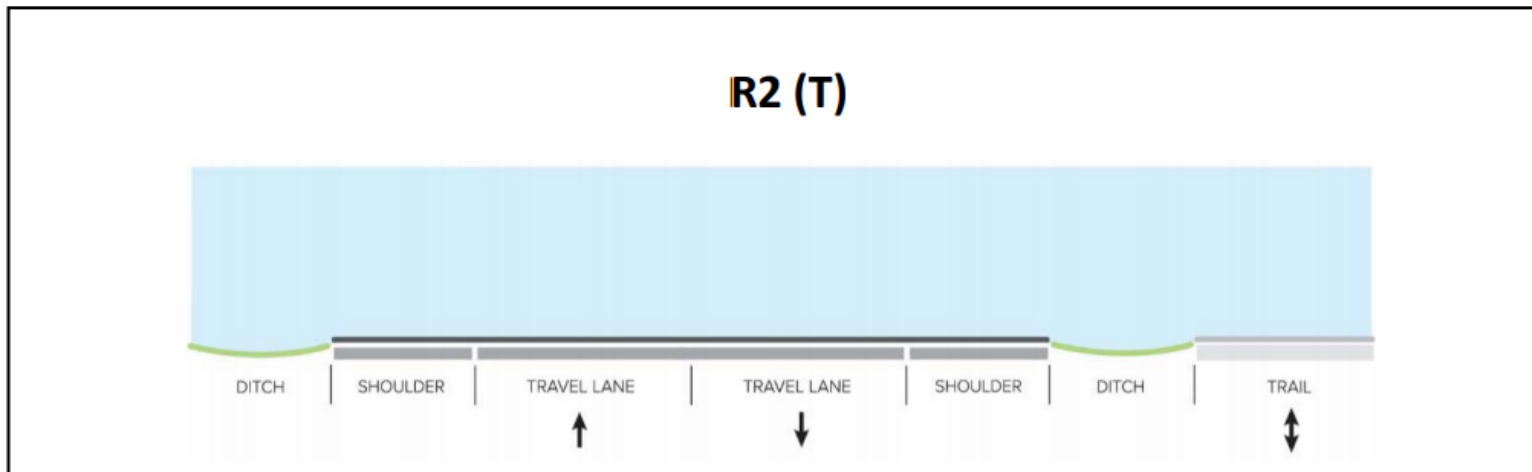
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# 5) Long-term Improvements

## Shared Use Path

- Countywide Transportation Plan:
  - Pedestrian facilities on both sides of Route 50 from Fleetwood Rd to Everfield Drive.
  - 10-ft shared use path on one side of Route 50 from Everfield Drive to Willisville Road.
- Performed functional assessment of optimal side of Route 50



Rural two-lane undivided section with shoulder and ditch and a shared use path on one side of the road





# 5) Long-term Improvements

## Shared Use Path

- Factors considered in selecting side of Route 50 for shared use path
  - Presence of destinations and trip attractions
  - Constrained sections of the roadway
  - Location of heritage resources
  - Consistency and limiting the number of crossings across Route 50
    - User safety and convenience
    - Avoid unnecessary crossings of higher-speed areas of the roadway

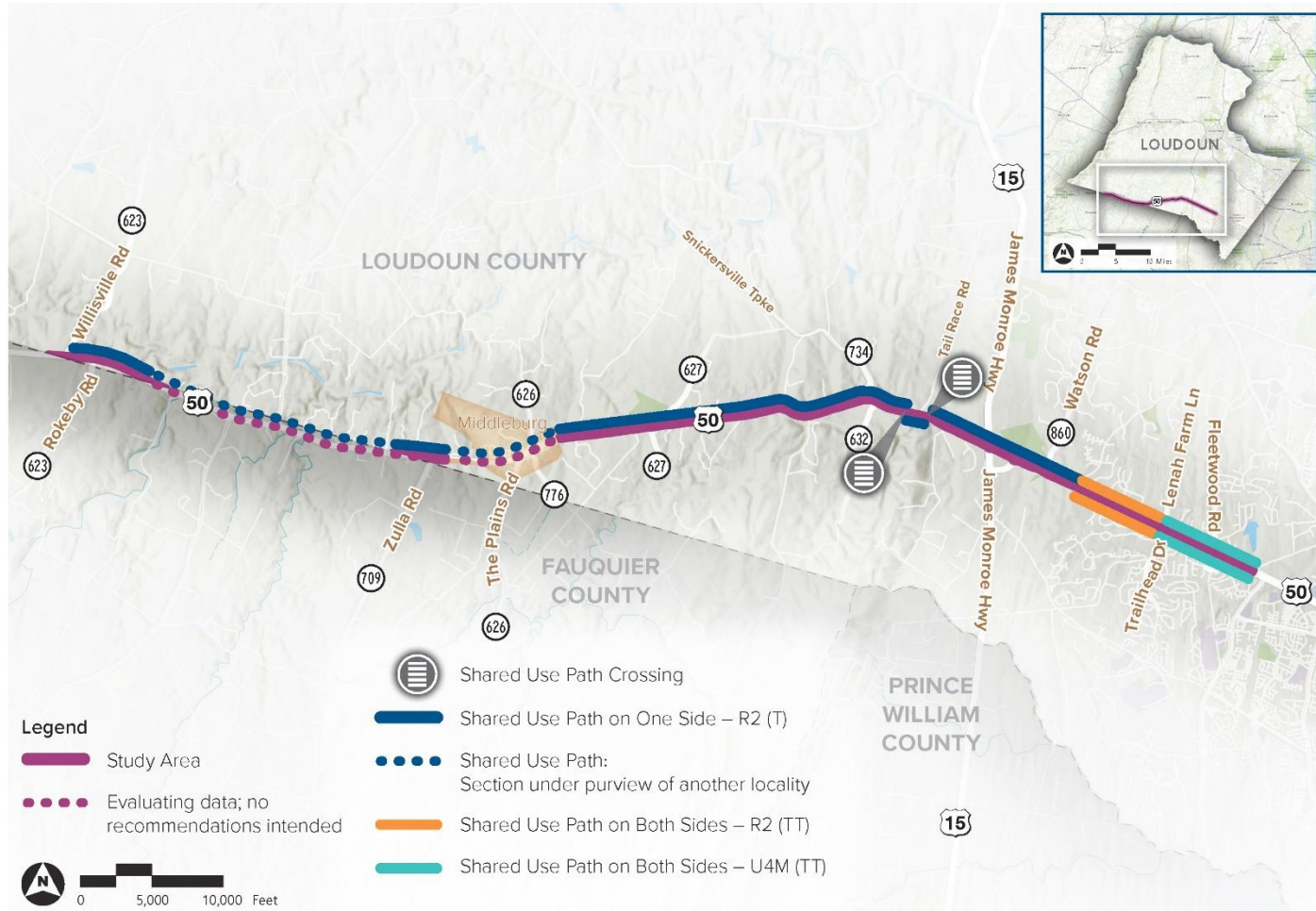




# 5) Long-term Improvements

## Shared Use Path

- Discuss recommendations
  - Western Fauquier CL to Sam Fred Road
    - North side of Route 50
  - Sam Fred Road to Meetinghouse Lane
    - North side of Route 50
    - Future evaluation of segment just west of Cobb House Road
  - Meetinghouse Lane to East of Little River
    - South side of Route 50
  - East of Little River to Everfield Drive
    - North side of Route 50





# 5) Improvements - Summary

- West of Route 15

- Safety addressed through
  - Hot spot short-term improvements
  - Turn lanes
  - Law enforcement areas
- Traffic operations
  - No notable existing or future year 2040 operational issues identified for improvements
- Multimodal mobility
  - Proposed shared use path on one side of Route 50

- East of Route 15

- Safety addressed through
  - Hot spot short-term improvements
  - Upcoming/planned improvements
    - Trailhead Drive roundabout
    - Everfield Drive roundabout
- Traffic operations
  - Long-term improvements to four intersections between/including Route 15 and Fleetwood Road
- Multimodal mobility
  - Proposed shared use path on one side of Route 50 to Everfield Drive
  - Proposed shared use path on both sides of Route 50 from Everfield Drive to Northstar Blvd

# 6) Near-Term Next Steps



Present Draft  
Alternatives  
for Public  
Input



Summarize &  
Consider  
Public Input



Evaluate  
Alternatives &  
Refine  
Recommendations

# 7) Open Discussion

