



County of Fairfax, Virginia

# Seven Corners Phasing Study

***TPB Transportation Safety Subcommittee Meeting  
June 13, 2023***

**Nanditha Paradkar, P.E.**  
Transportation Planner  
Fairfax County Department of Transportation





- Study Background
- Purpose of Phasing Study
- Study Process and Outreach
- Multimodal Analysis
  - Existing Conditions
  - Interim year 2030 analysis
  - Horizon year 2045 analysis
- Phasing Recommendations
- Conceptual Plans
- Next Steps
- Questions/Comments



Seven Corners  
Visioning effort  
begins

2012

Seven Corners  
Transportation  
Study Complete

2014

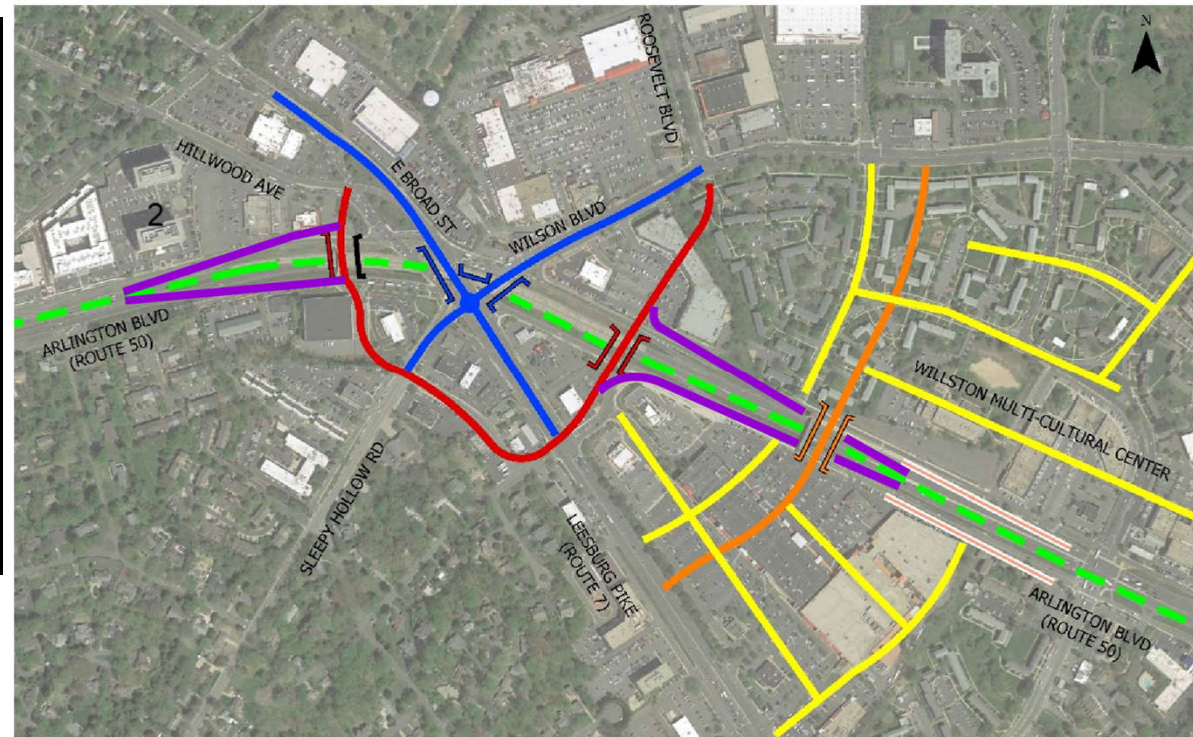
Board of  
Supervisors adopt  
Plan Amendment for  
Seven Corners

2015

Seven Corners  
Phasing Study

2020-2023

- **A ring road**
- **Four-way intersection**
- **Route 50 widening**
- **Shifted ramps to and from Route 50**
- **Willston / Village Center to Route 7**
- **Additional connecting streets**

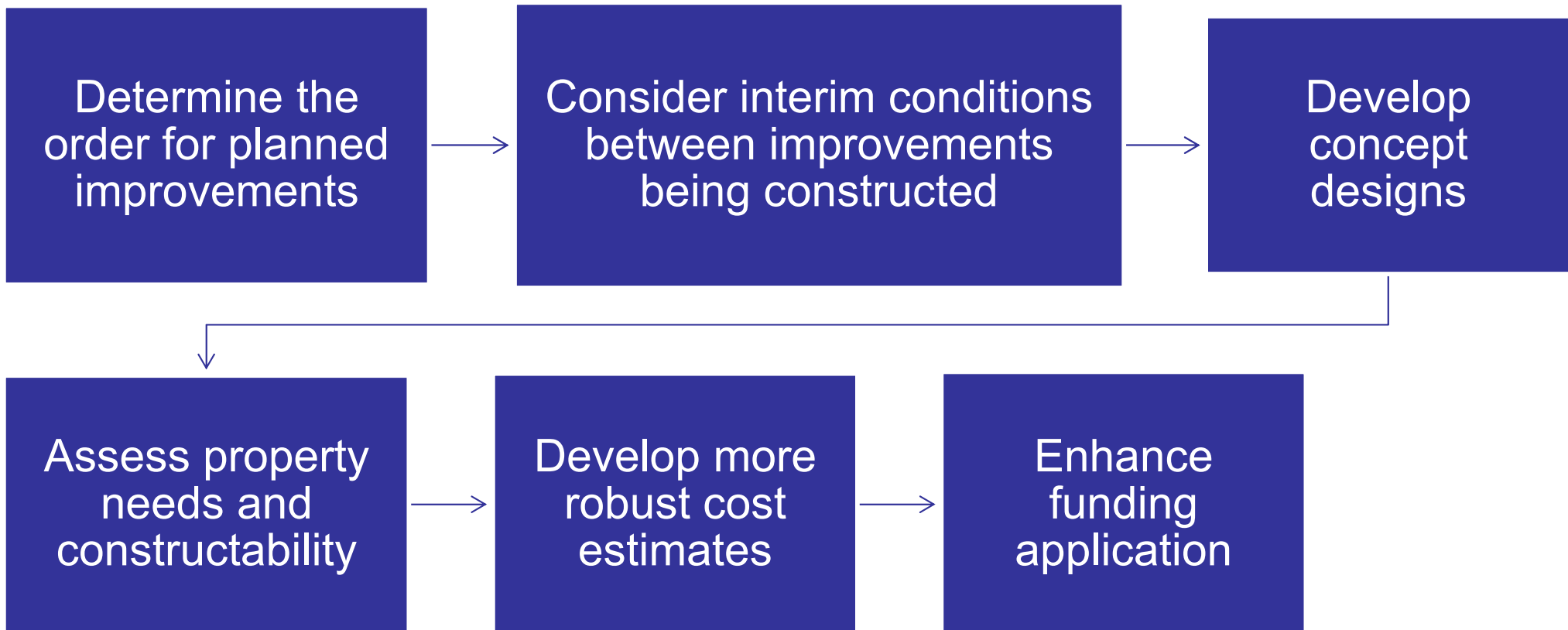


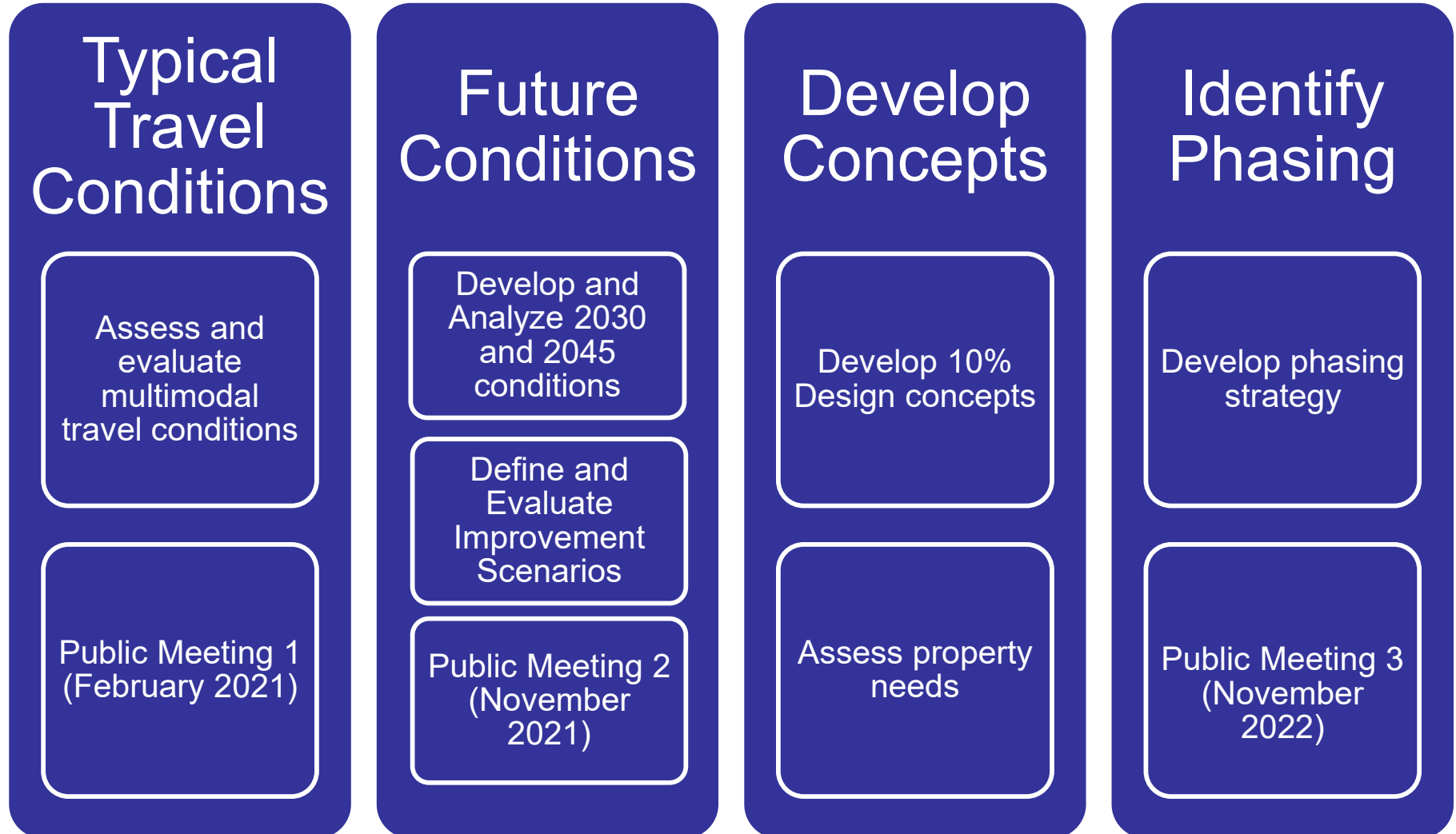
- Address reliability and congestion issues
- Improve access to and within the Activity Center
- Create and/or enhance bicycle/pedestrian facilities





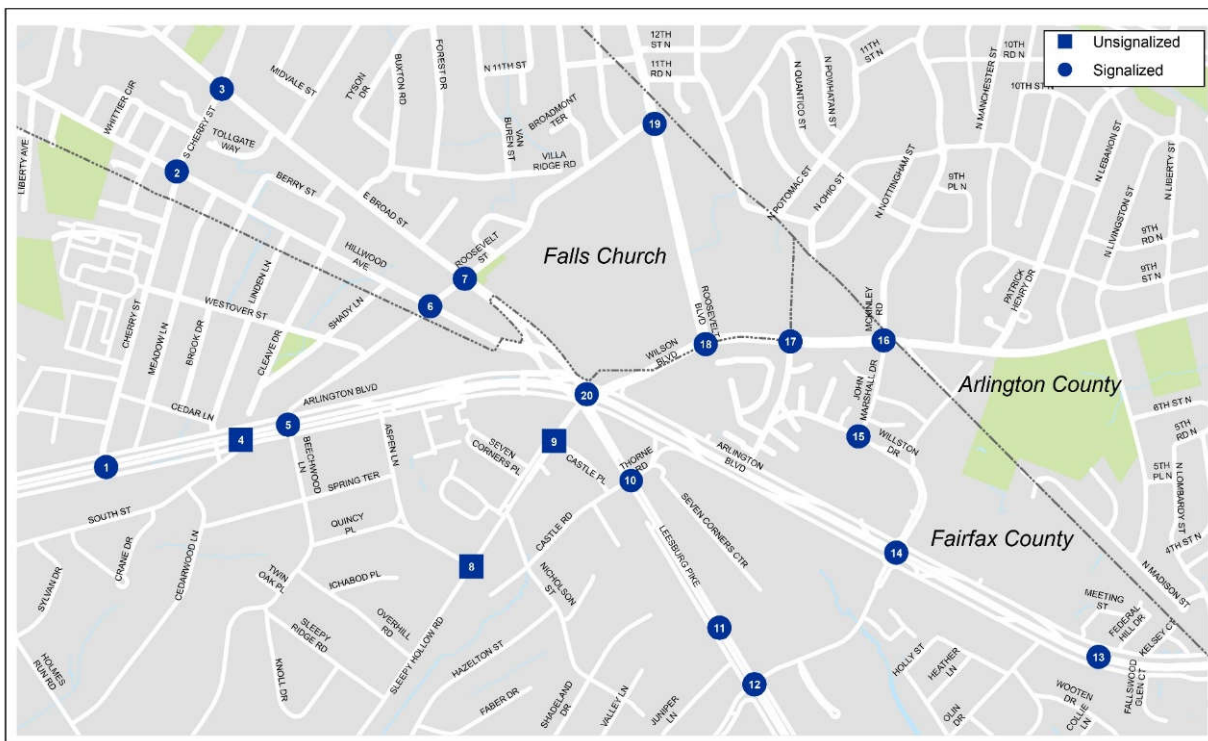
# Purpose of Phasing Study







# Multimodal Analysis Overview



## Pedestrian Conditions

- Crossing Time

## Bicycle Conditions

- Level of Traffic Stress (LTS)

## Vehicle Travel

- Delay/Level of Service (LOS)
- Vehicle queue length

## Transit Conditions

- Bus Headway

### Multi-jurisdictional

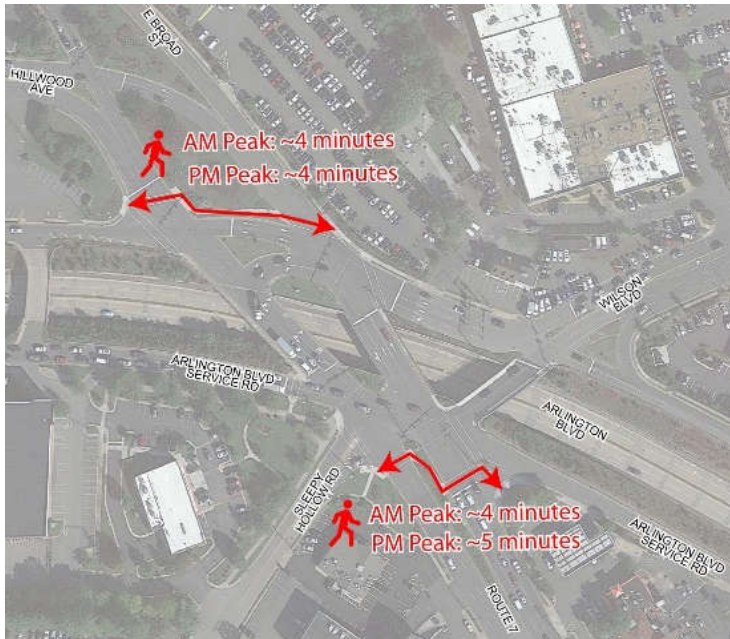
- Fairfax County
- City of Falls Church
- Arlington County

### Intersections

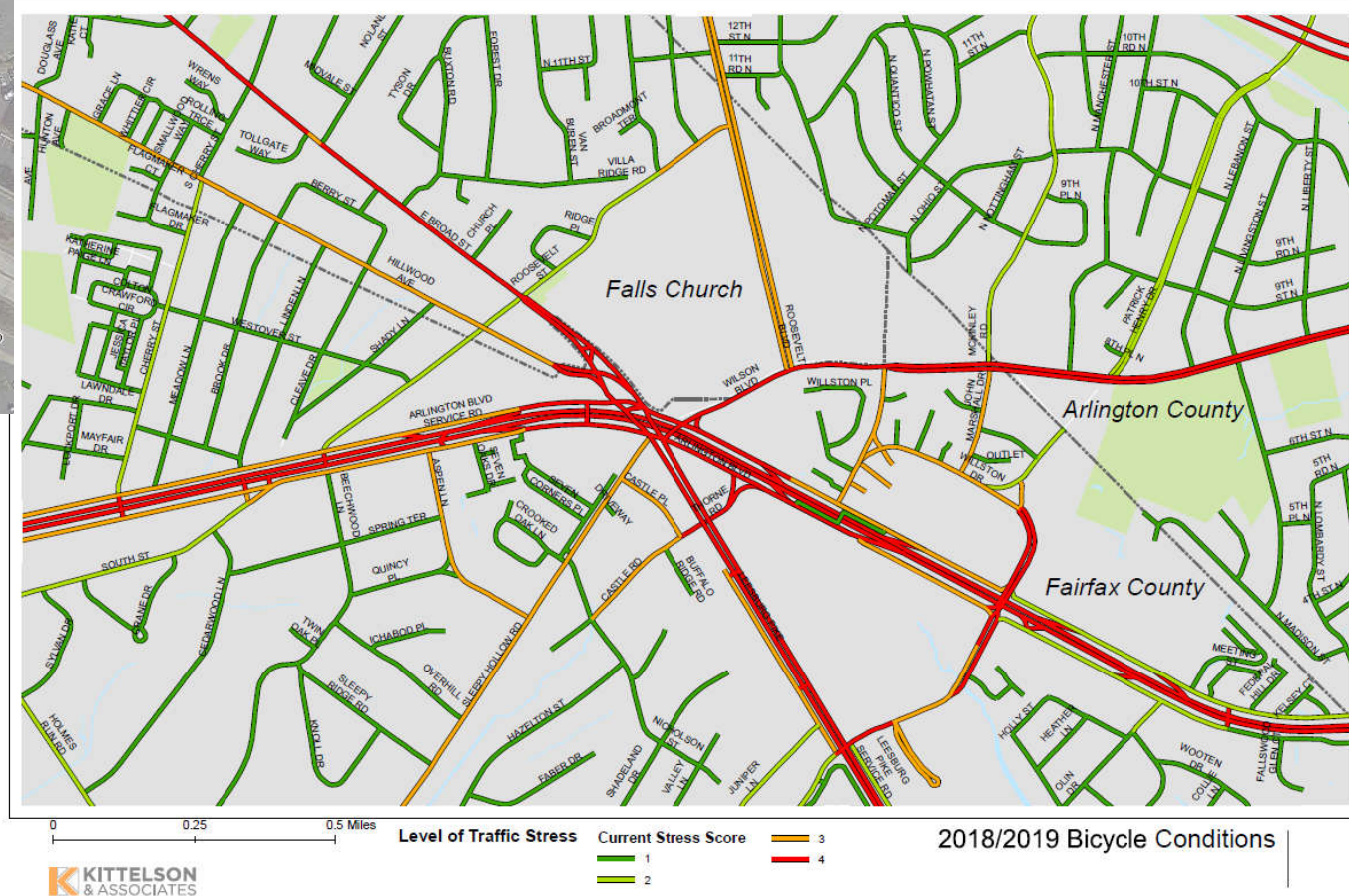
- Signalized - 21
- Unsignalized - 3



## ← Pedestrian Crossing Time

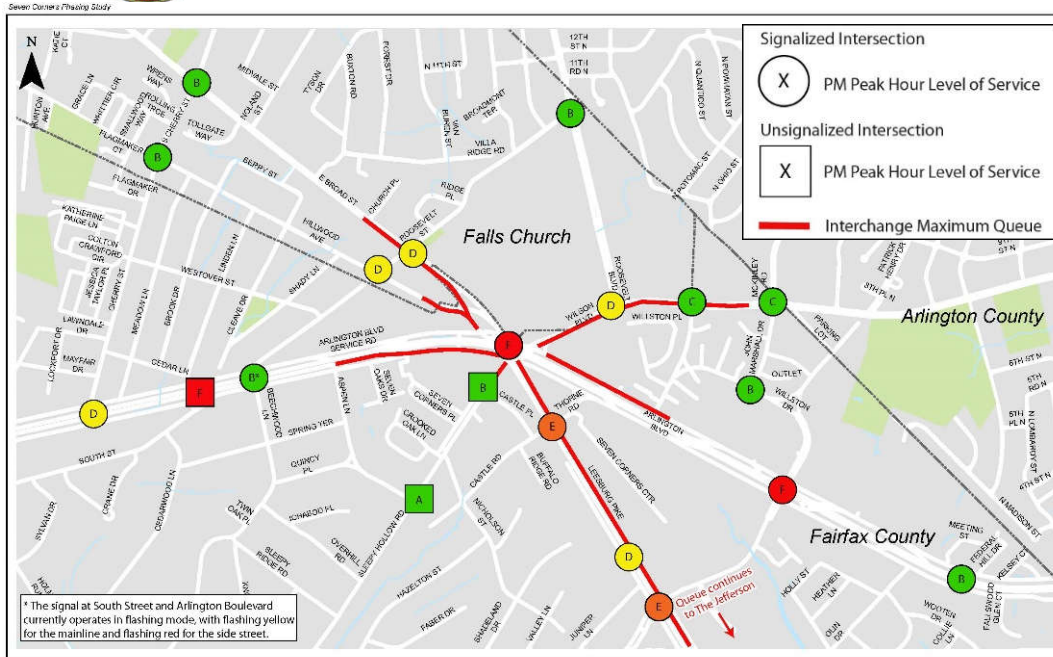


## Bicycle Level of Traffic Stress (LTS)

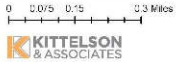


KITTELSON & ASSOCIATES





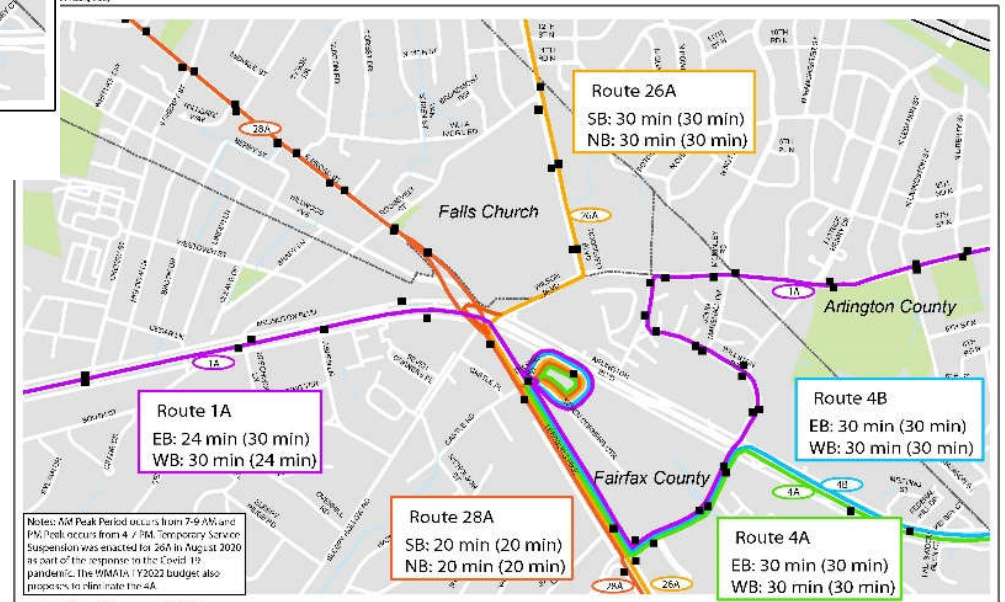
2018/2019 PM Peak Hour (5:00 PM - 6:00 PM)  
Level of Service and Queue



## Level of Service (LOS)



## Transit Service



Average Weekday Frequency by Route  
AM Peak Period and PM Peak Period





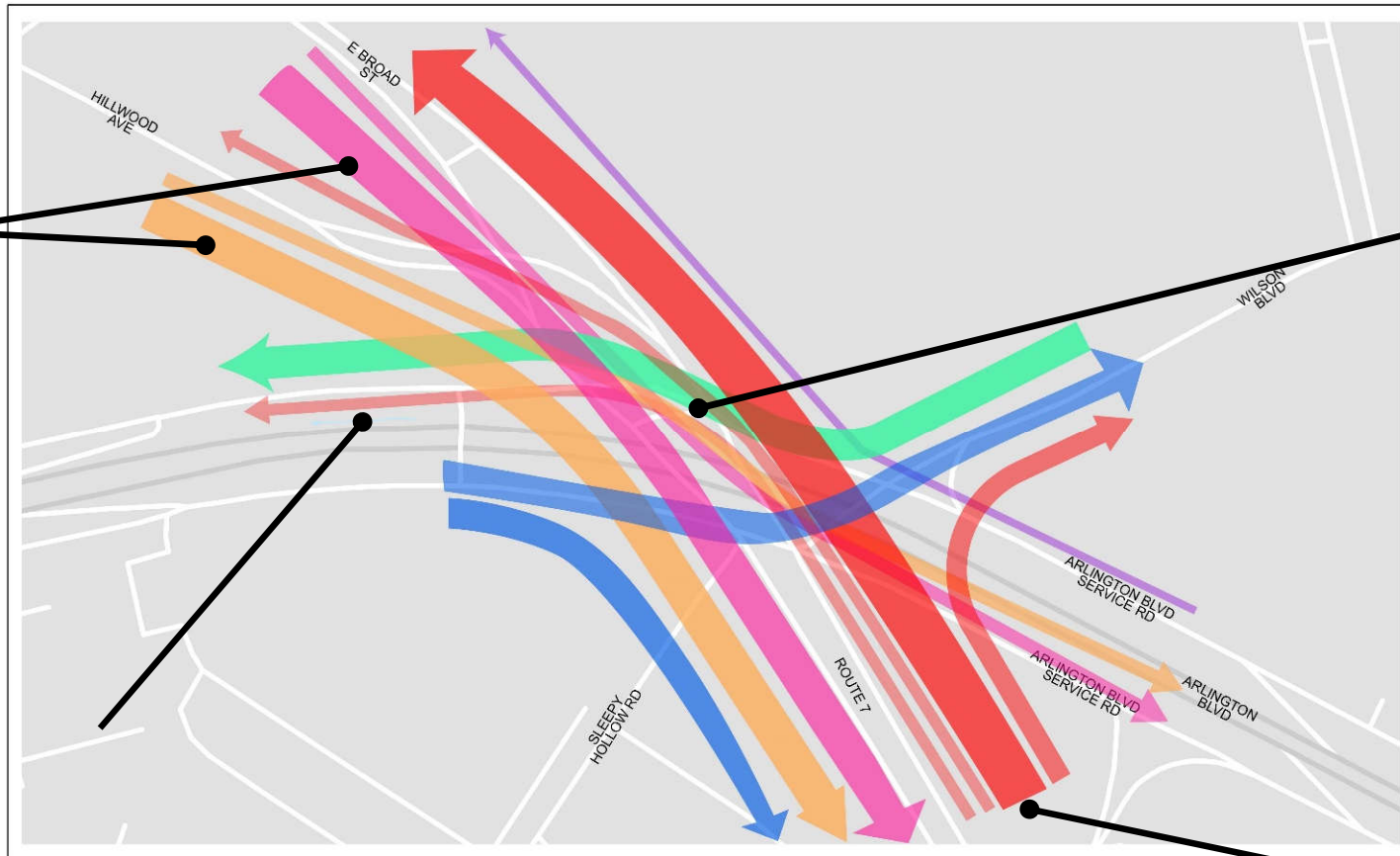


Major SB movements come together from Hillwood Ave and Broad St

Major conflicting movements on north side of interchange

Major demand to WB Arlington Blvd

Major queuing and delay on NB Route 7

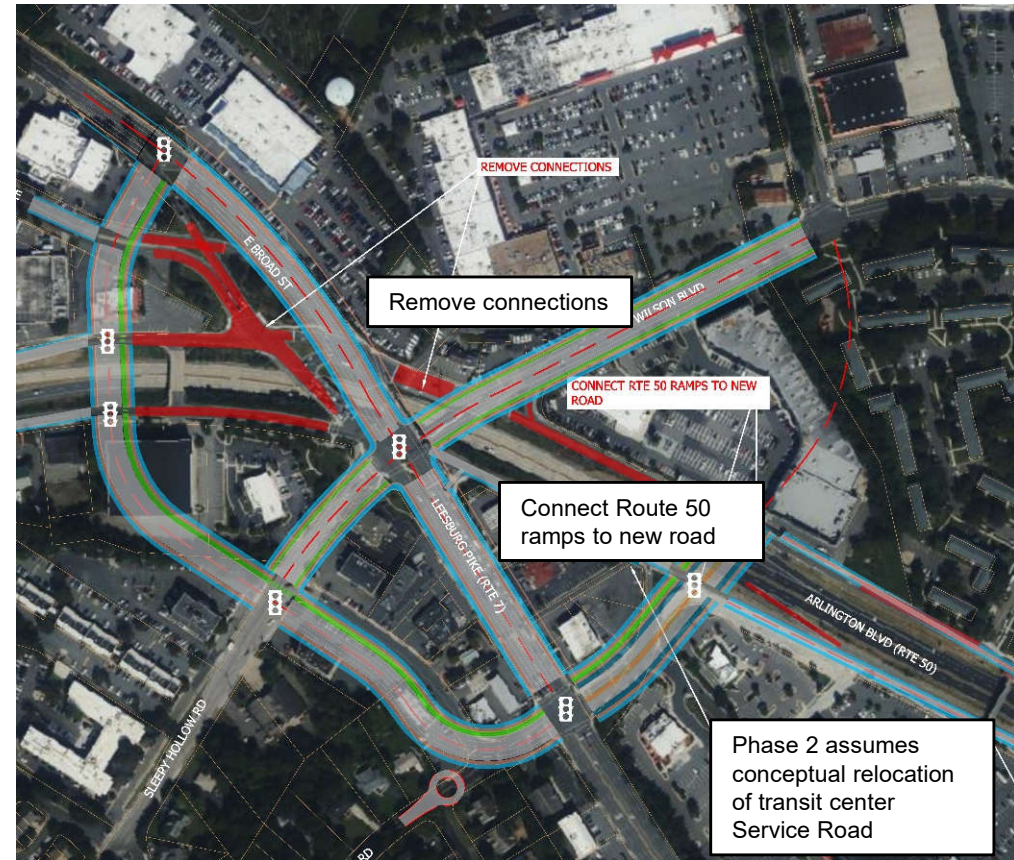
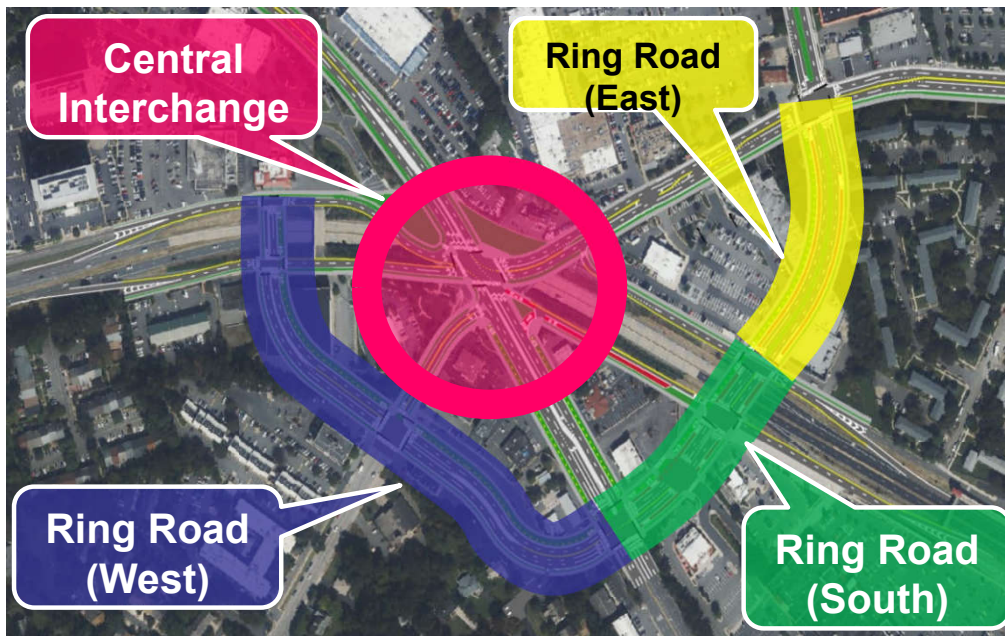


Interchange Travel Patterns  
PM Peak



## Challenges to Original Network Vision

- Terminate at East Broad Street
  - Property impact
  - Hillwood Ave connection
- Four-leg central intersection
  - Unable to accommodate demand



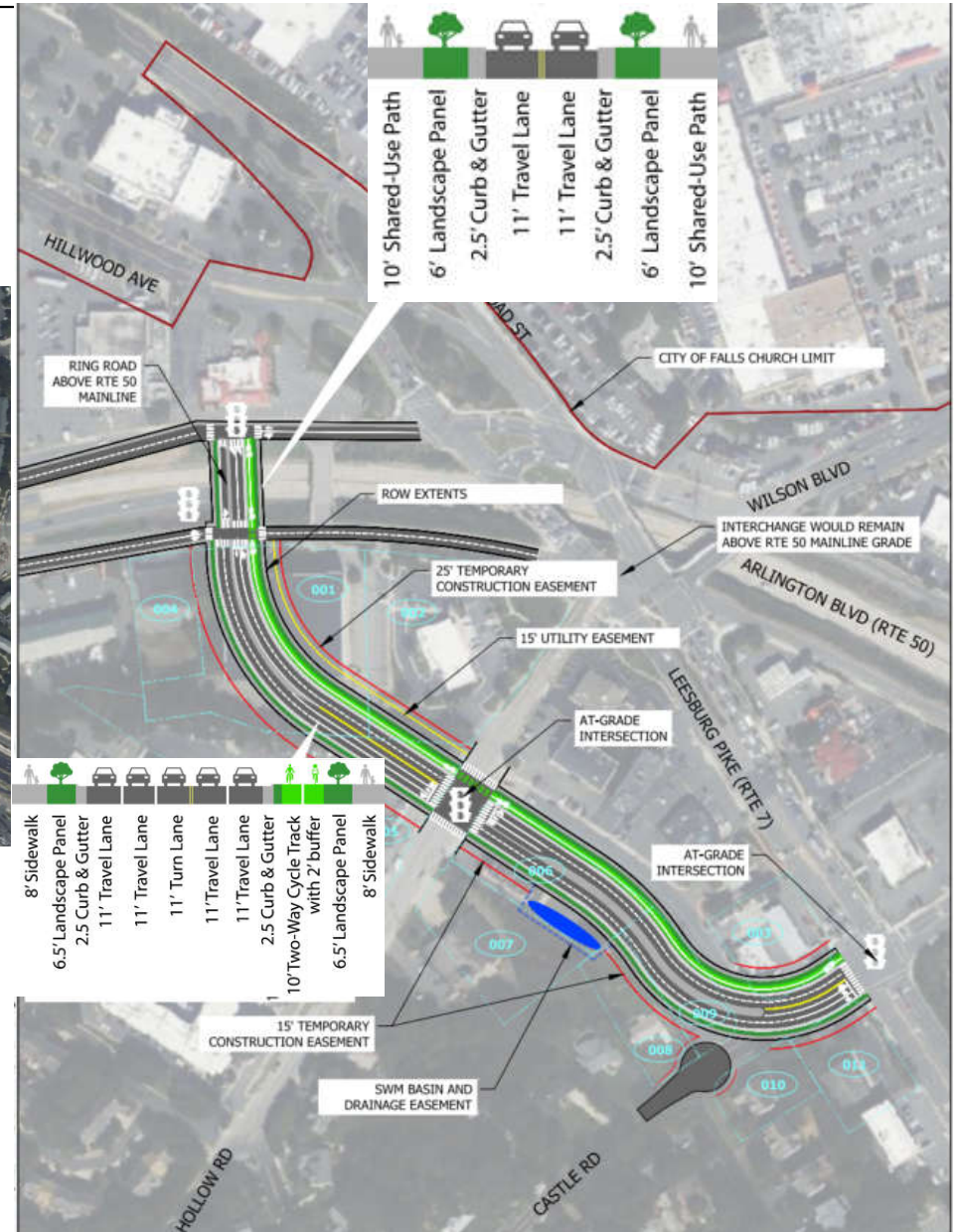
## Adjusted Approach

- Ring Road terminated at Route 50
- Wilson Boulevard aligned with Route 50 instead of Sleepy Hollow

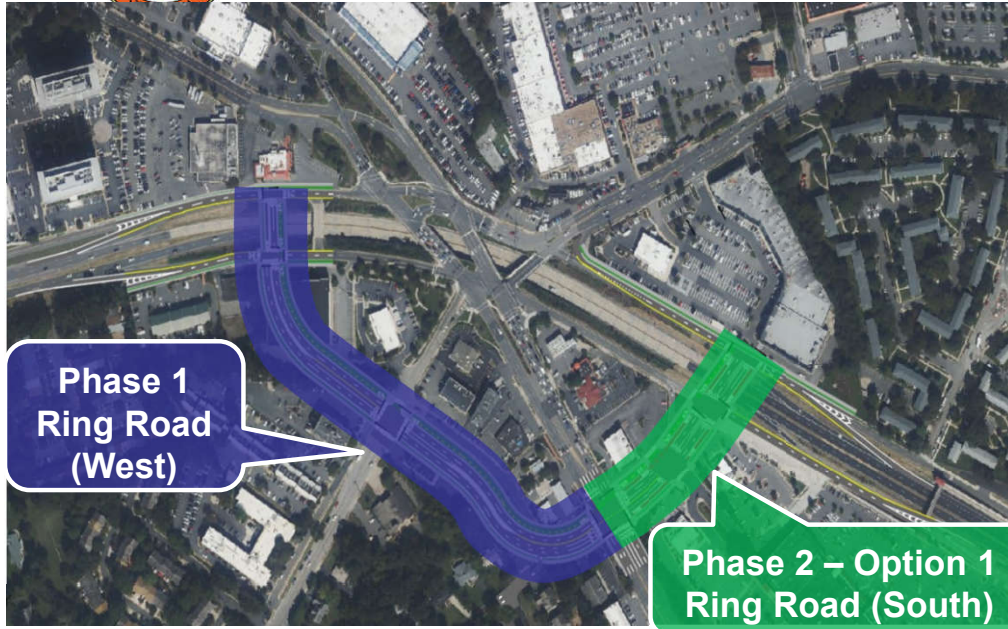




## Phase 1

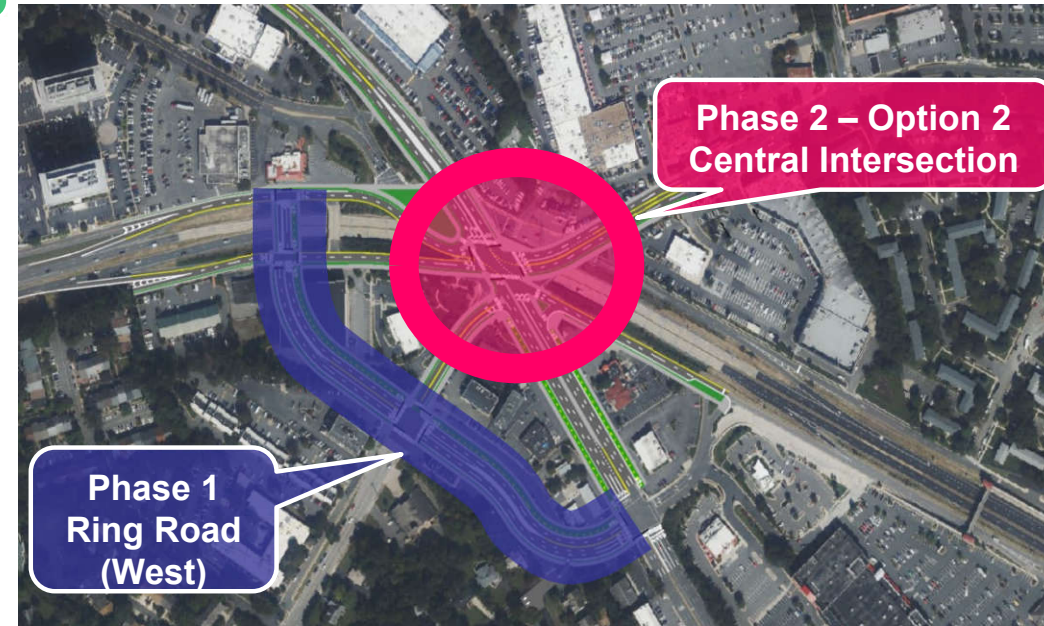






Phase 2 – Option 1  
Ring Road South

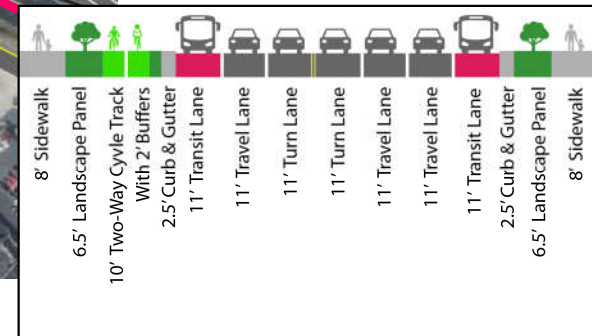
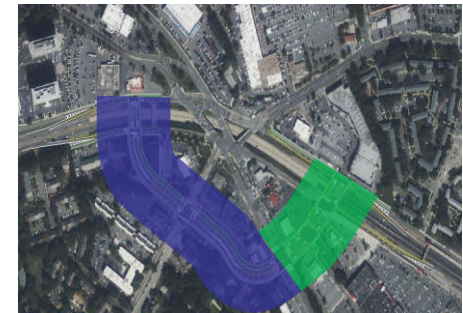
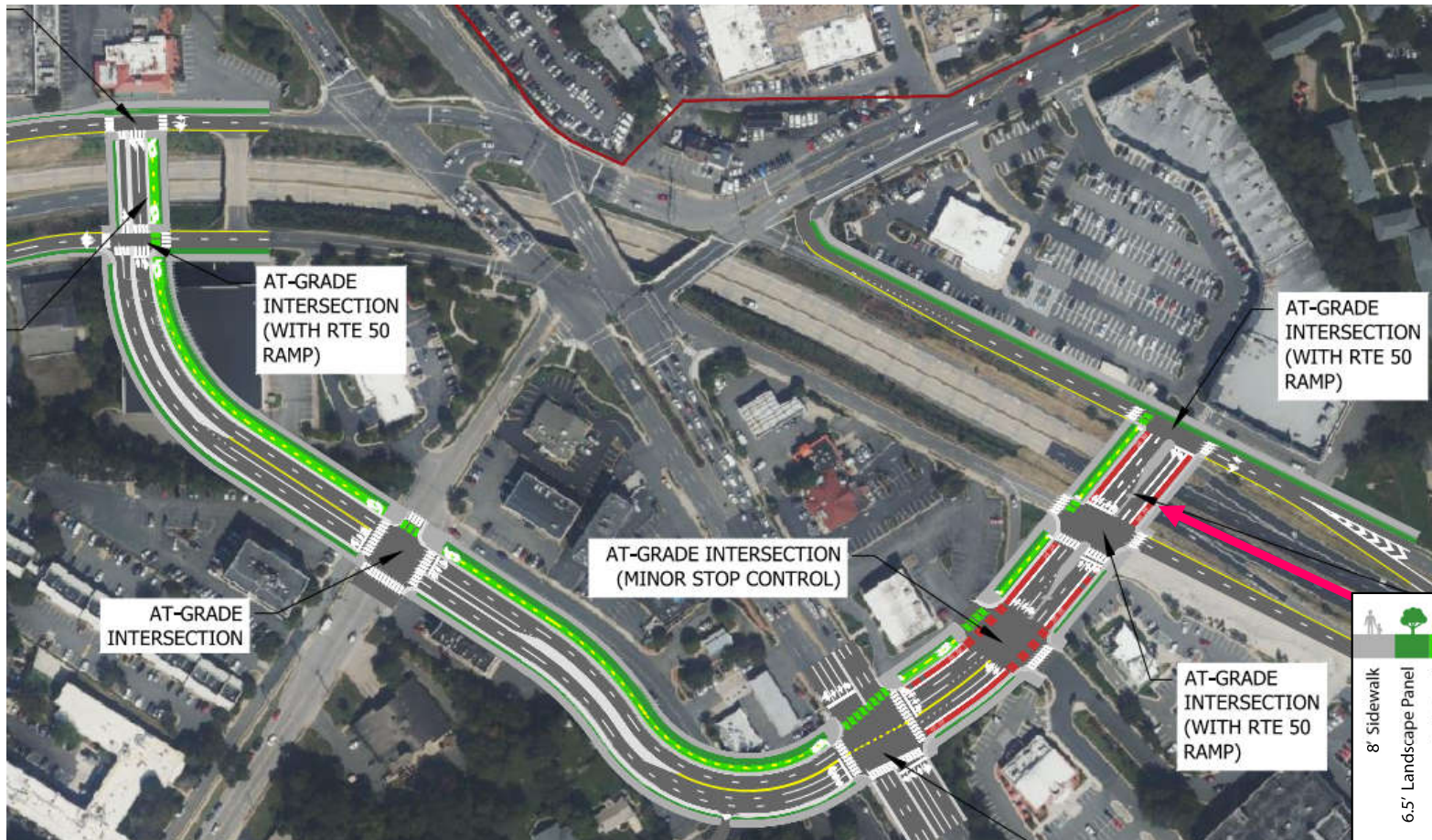
Phase 2 – Option 2  
Interchange







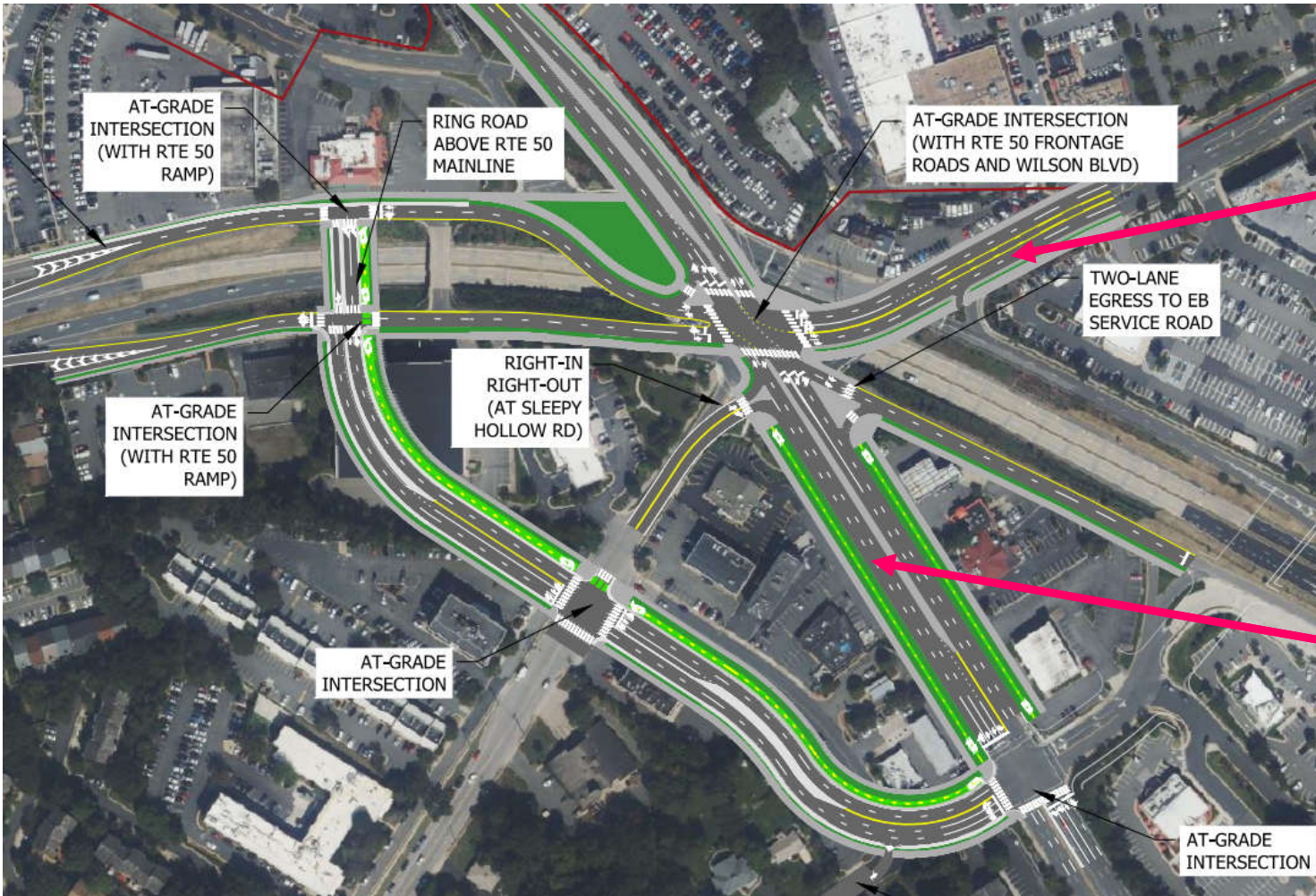
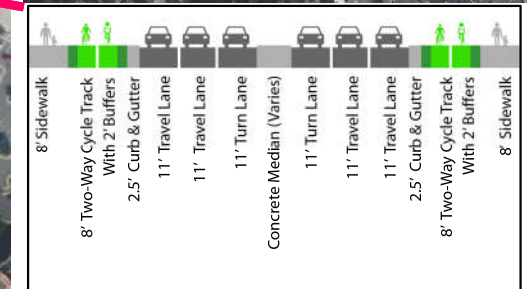
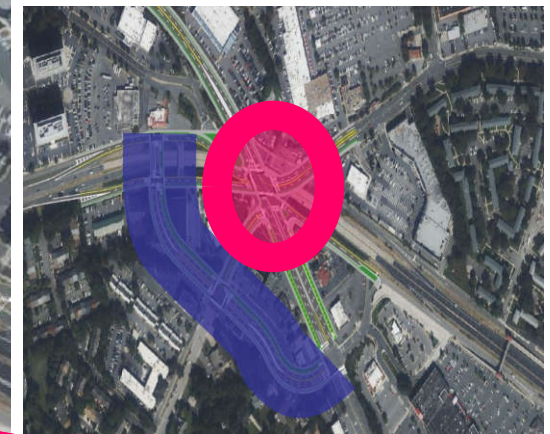
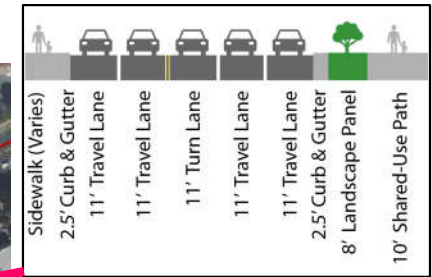
## Phase 2 – Option 1 Ring Road South



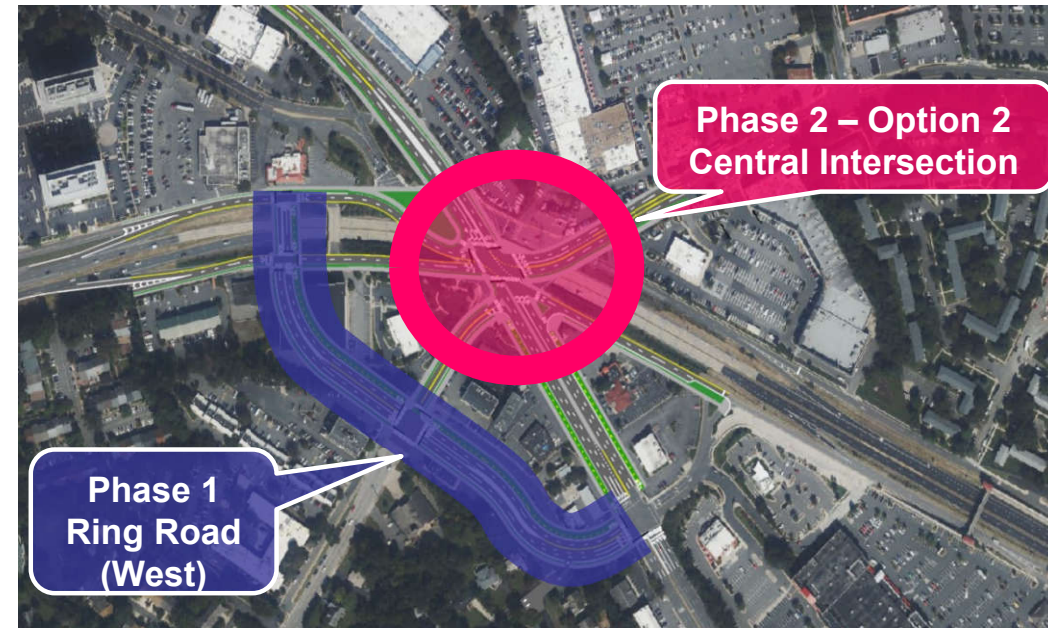
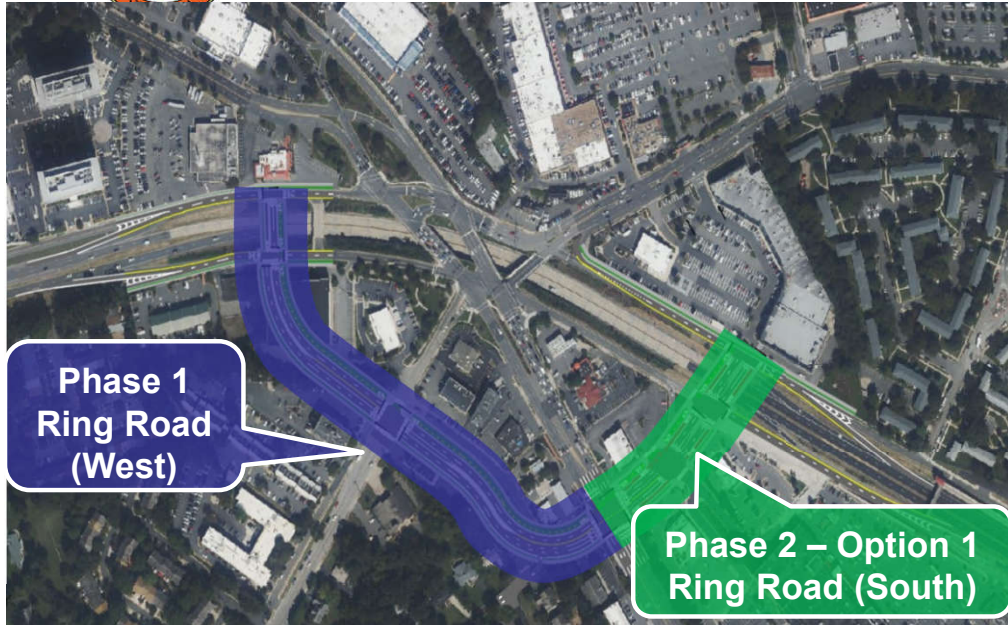




## Phase 2 – Option 2 Interchange

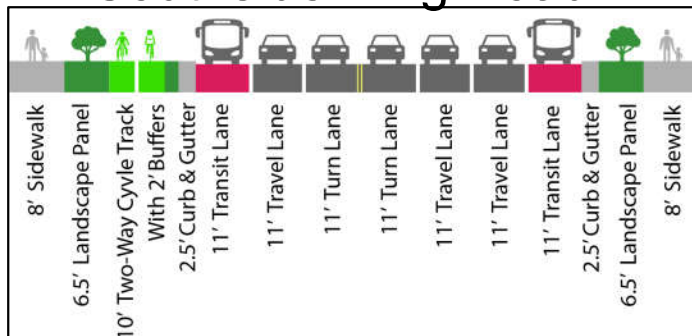






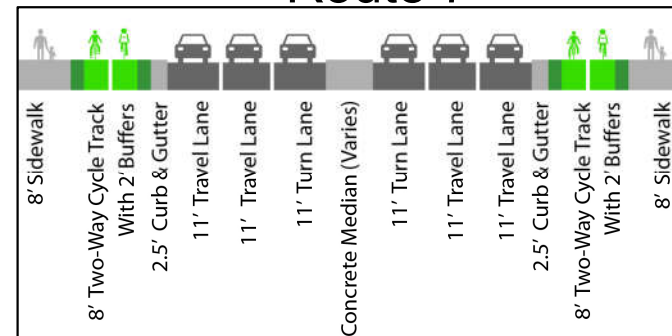
## Phase 2 – Option 1 Ring Road South

### Southside Ring Road



## Phase 2 – Option 2 Interchange

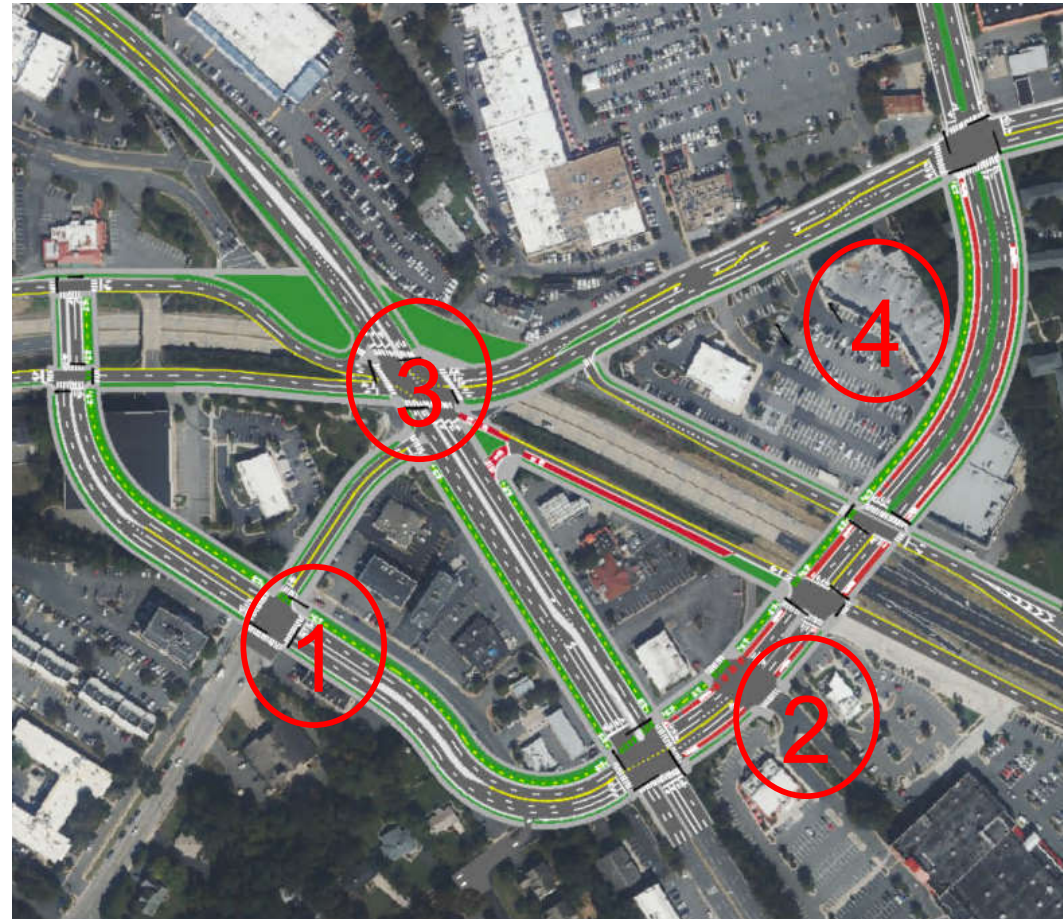
### Route 7







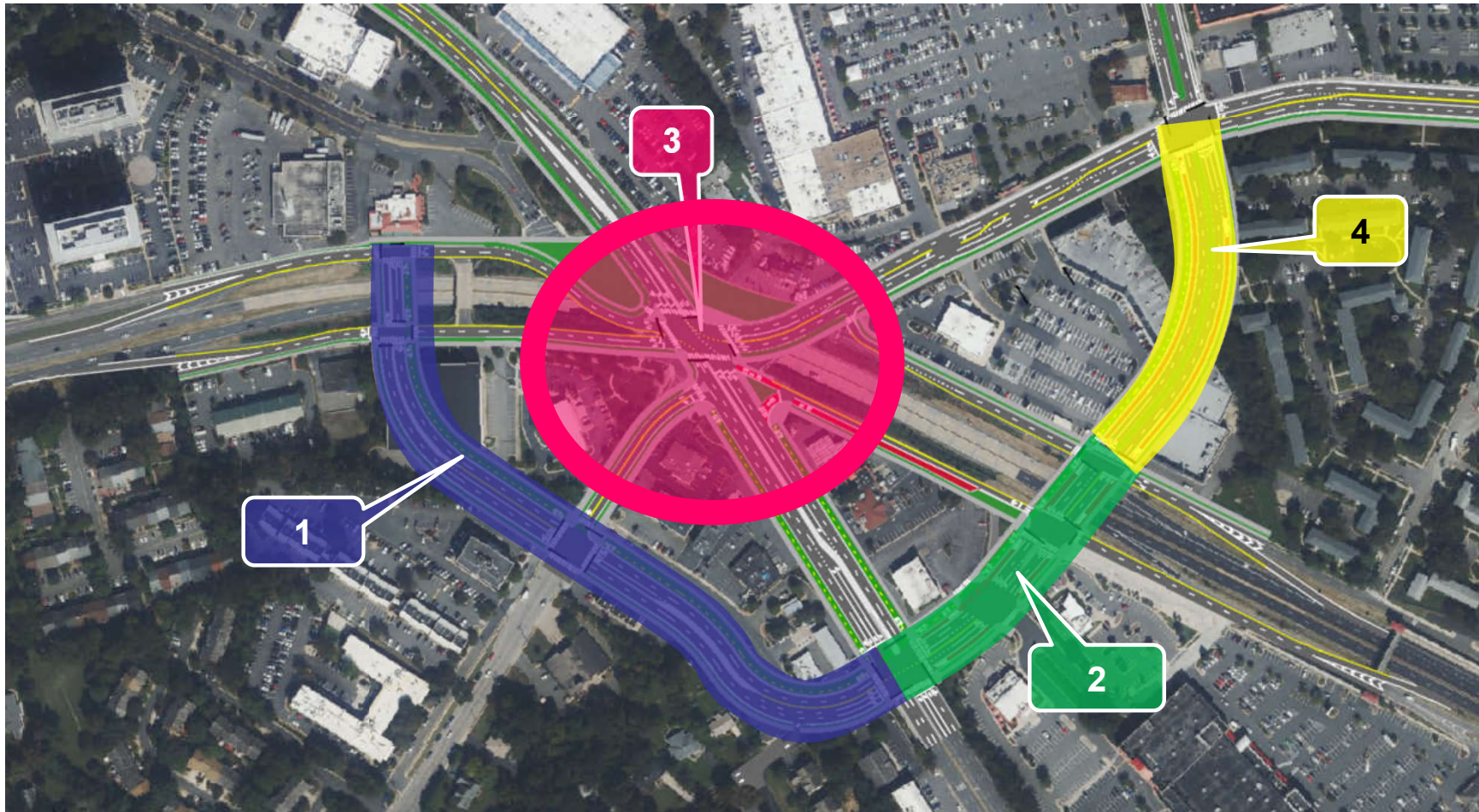
- 2045 Analysis
  - Baseline (Phases 1, 2, 3)
  - Phase 4 (Including Phases 1, 2, 3)
- BRT considerations
  - Exclusive BRT lanes on east portion of the Ring Road
  - Exclusive BRT lanes on Route 7 south of the Ring Road
  - Consistent with the vision of the Comprehensive Plan
- Expected operations
  - This will significantly improve transit mobility
  - Improved network performance
  - Improve Bike/Ped connectivity







# Phasing Recommendations



























# Next Steps

- Publish Study
- Pursue Grant Funding
- Start Design Process
- Construction

Project website: <https://www.fairfaxcounty.gov/transportation/study/seven-corners>



# Questions or Comments?

[nanditha.paradkar@fairfaxcounty.gov](mailto:nanditha.paradkar@fairfaxcounty.gov)

Phone: (703) 877-5600 | TTY 711