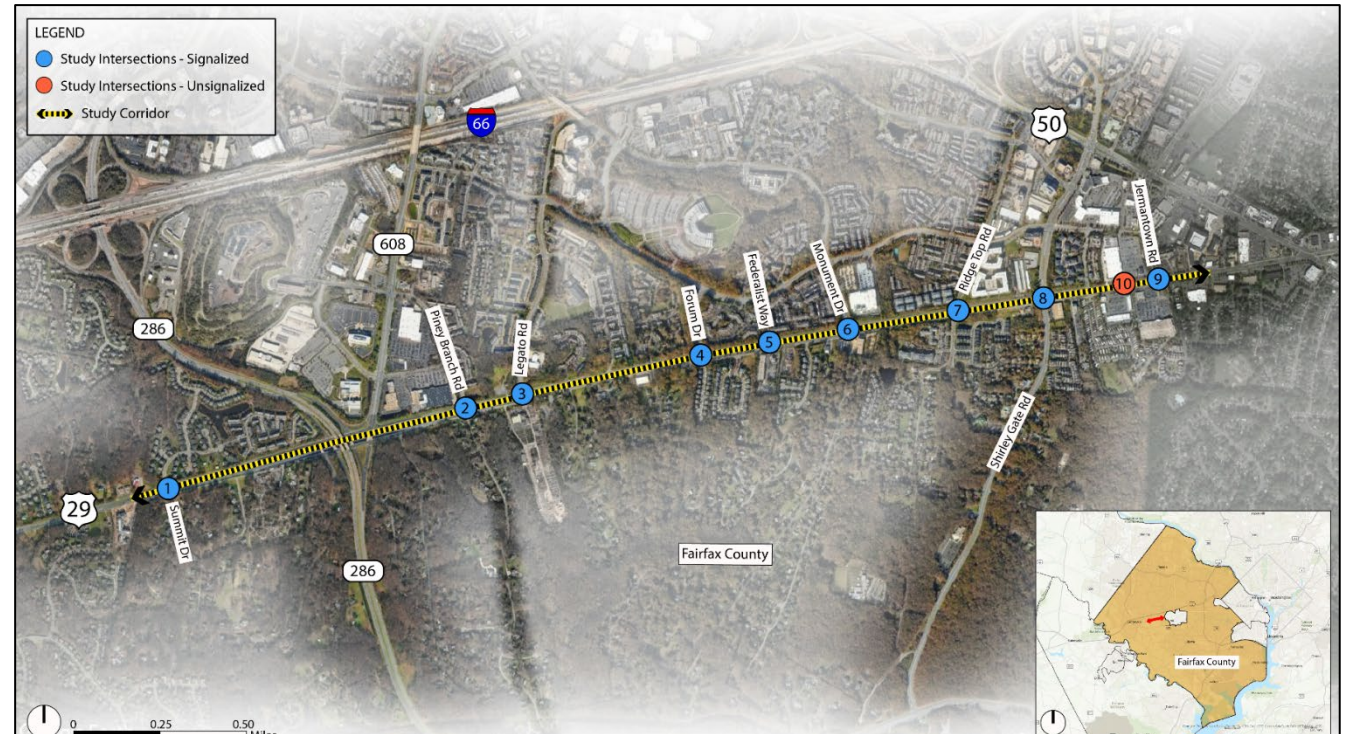


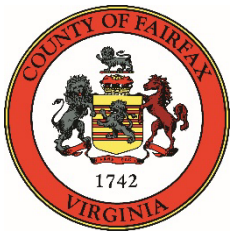
# Route 29 Corridor Study

## Public Meeting Round – 2

*June 5, 2024 - Virtual*

**Arpita Chatterjee**  
Transportation Planner  
Department of Transportation

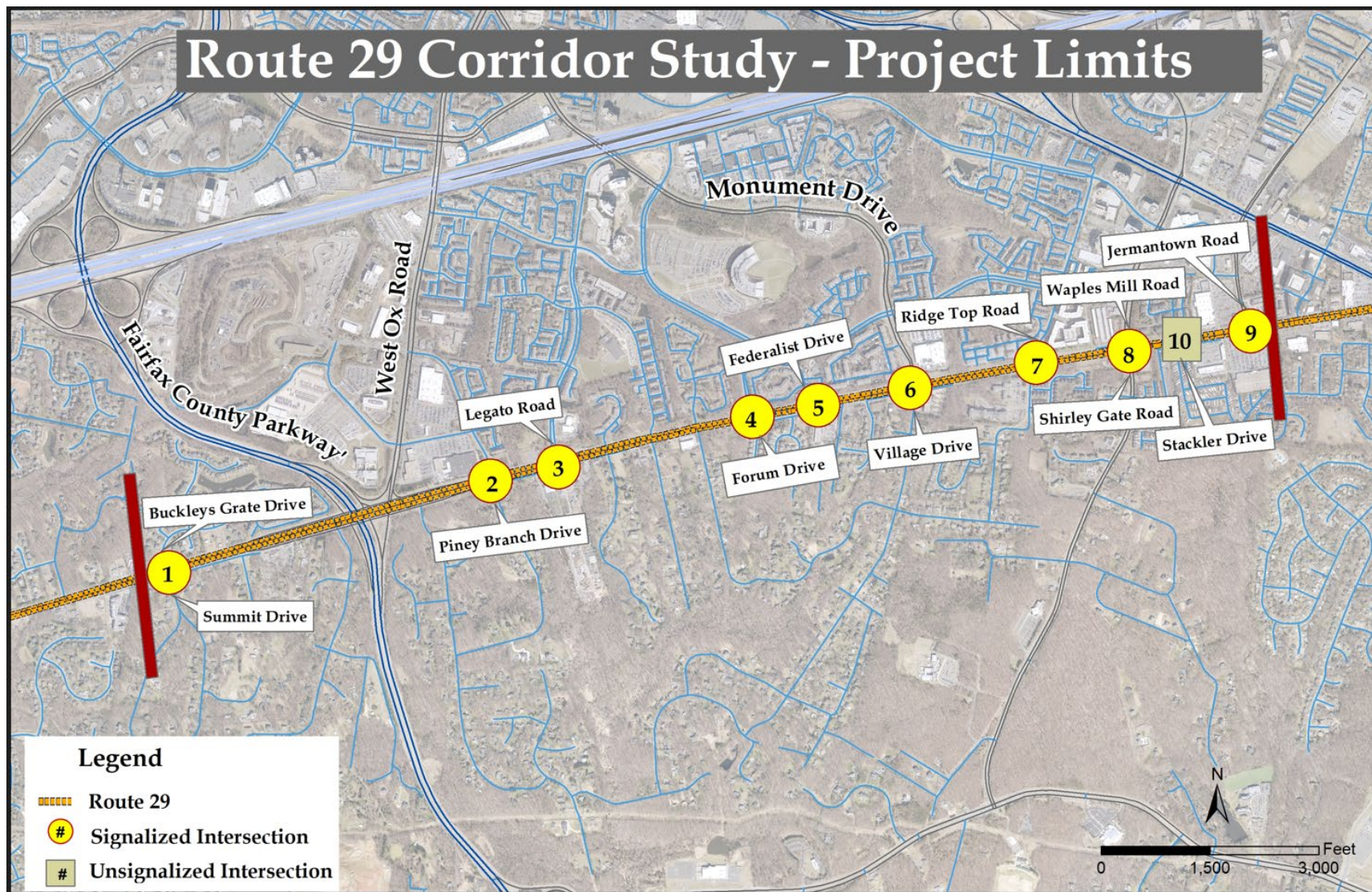
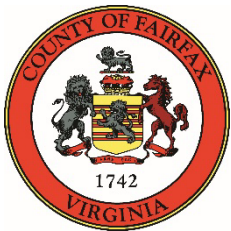




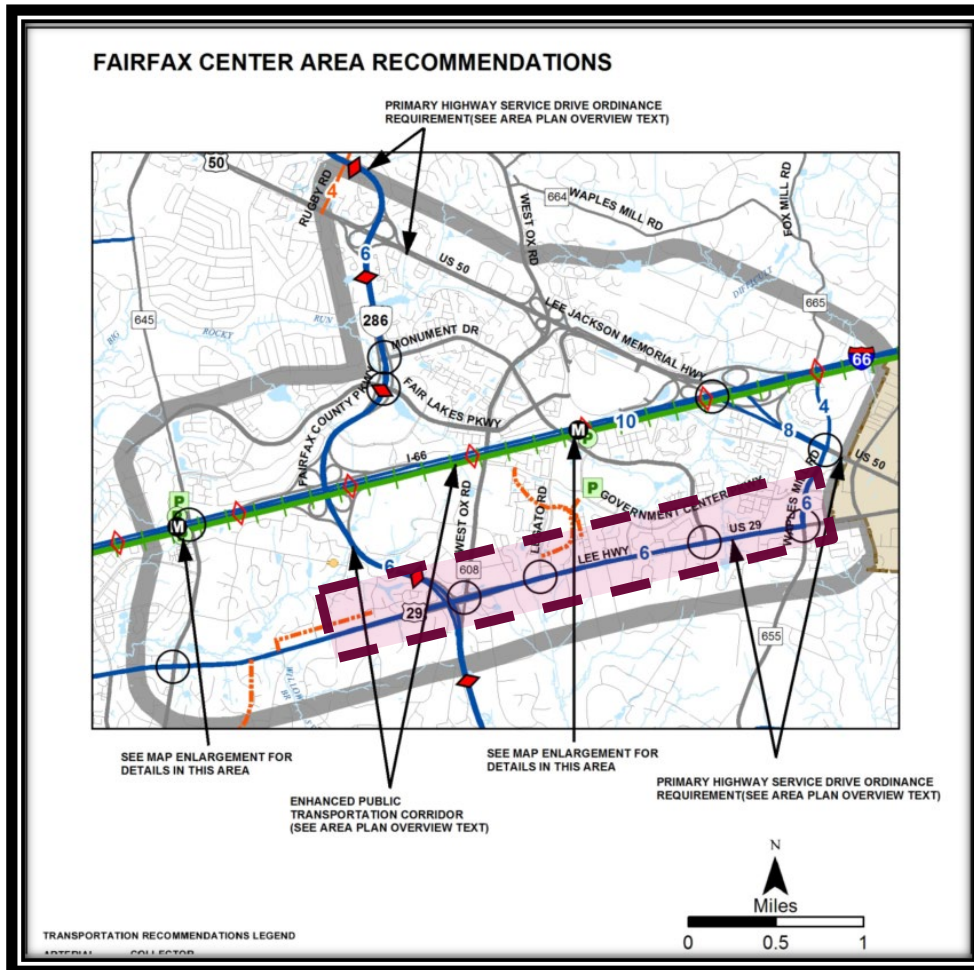
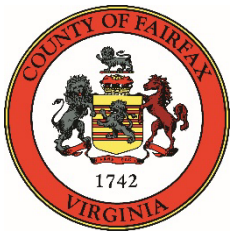
- Purpose and Background
- Public Meeting Round 1 Feedback
- Corridor wide mobility and safety improvements
  - Pedestrian and Bicycle Connectivity
  - Alternative Improvements for Planned Interchanges
  - Other Intersection Improvements
  - Survey Round 2
- Next Steps











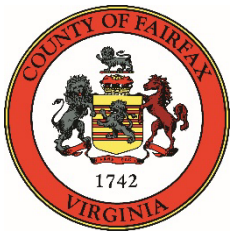
## Comprehensive Plan *Interchanges along Route 29*

- Waples Mill Road/Shirley Gate Road
- Monument Drive
- Legato Road
- West Ox Road

- Evaluate the need of the planned interchanges
- Long-term needs
- Multimodal assessment and safety
- Fairfax Center Area Comprehensive Plan Amendment

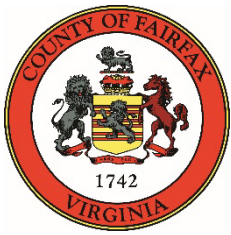


Study limits (2.9 miles approx.)



# Survey Round 1

*(February 12 – March 1, 2024)*

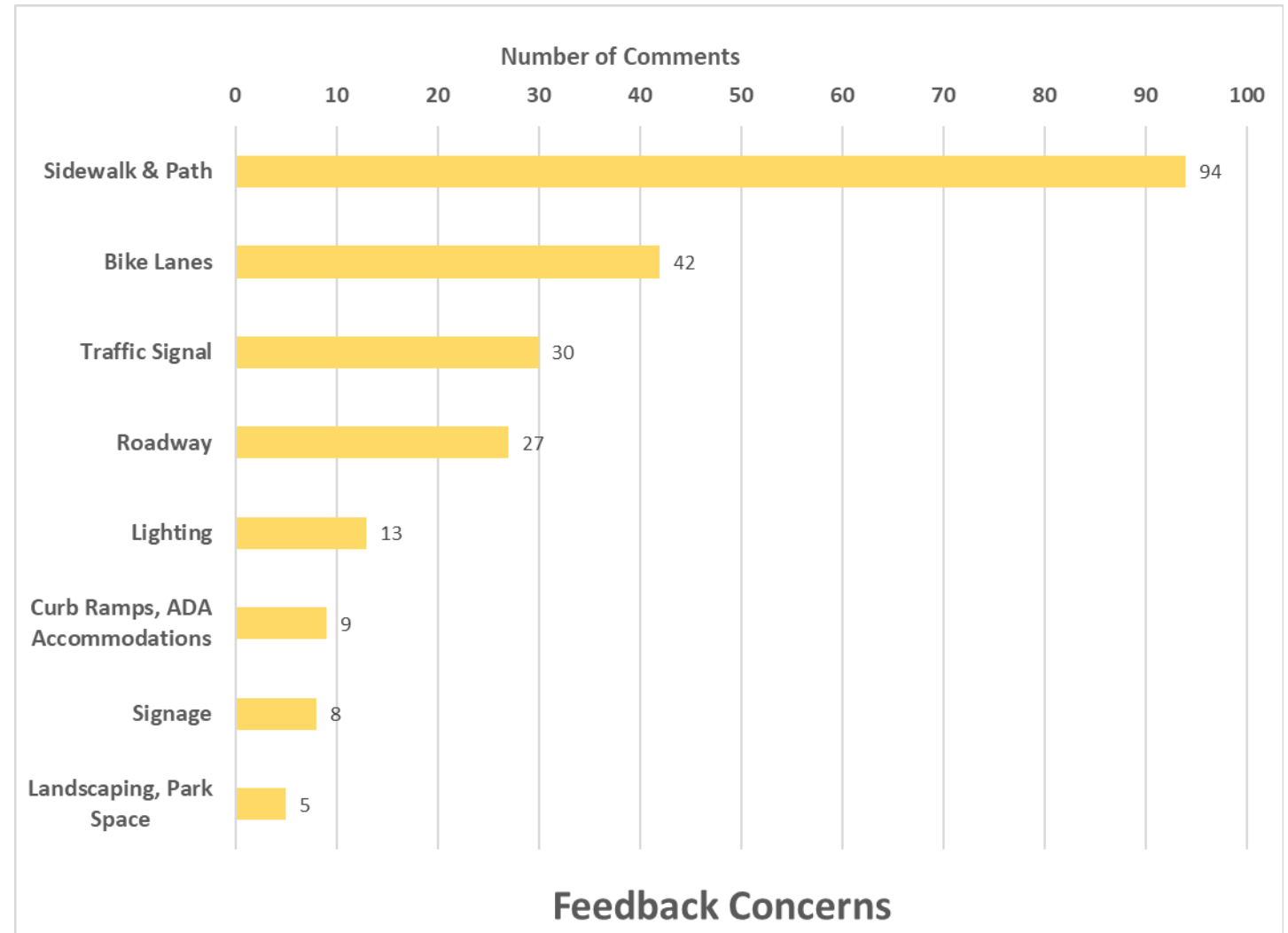


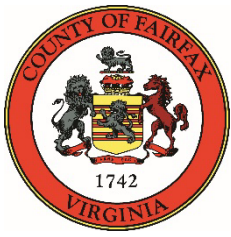
## Top Pedestrian/Bicycle Concerns

- Continuous sidewalks and shared use paths
- Wider sidewalks and paths
- Better separation between sidewalk and roadway

## Top Intersection Traffic Concerns

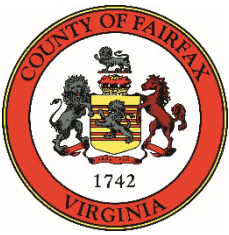
- Long delays when making left turn
- Short turning lanes at Shirley Gate/Waples Mill Rd intersection.
- Walmart intersection with severe vehicle-pedestrian conflict



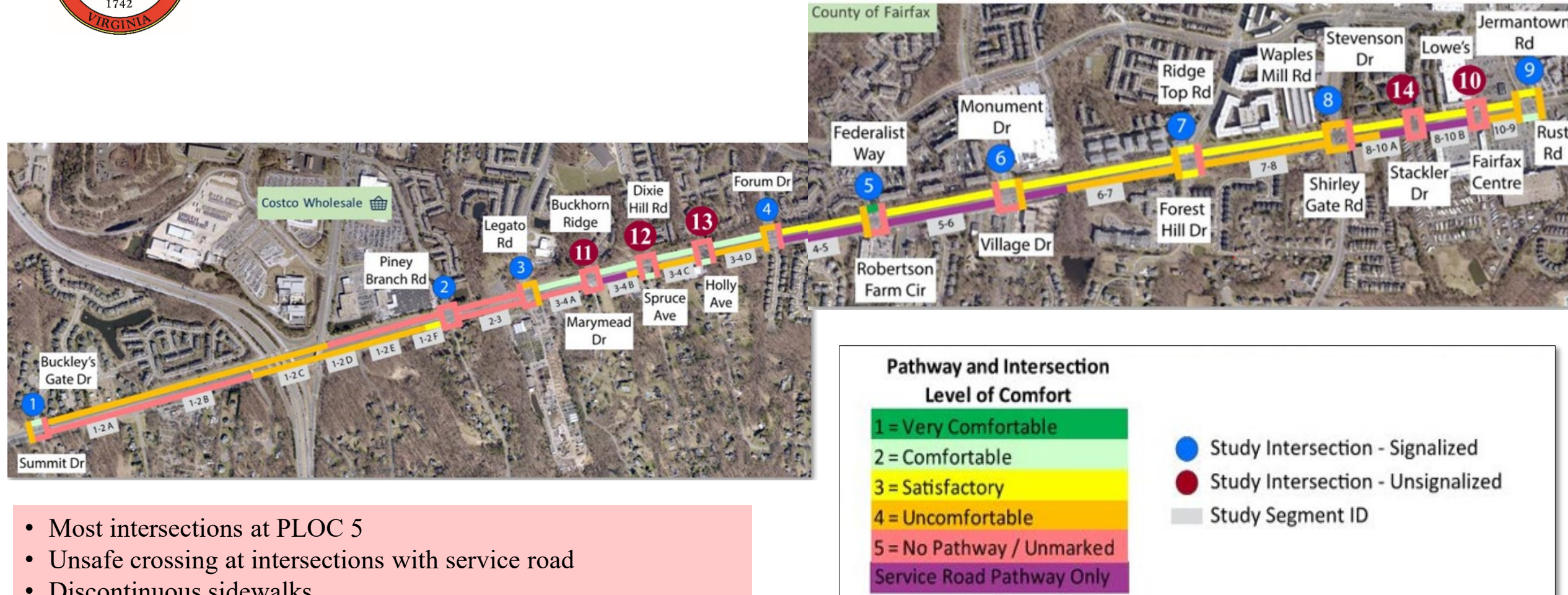


# Pedestrian and Bicycle Connectivity



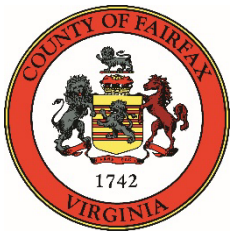


# Pedestrian Metrics and Existing Pedestrian Conditions



- Most intersections at PLOC 5
- Unsafe crossing at intersections with service road
- Discontinuous sidewalks
- Pedestrian conflicts with service road traffic

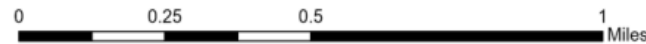




# Bicycle Metrics and Existing Bicycle Conditions



**BLTS 1** Note: Shared-Use Path is BLTS 1,  
**BLTS 4** all other locations are BLTS 4.

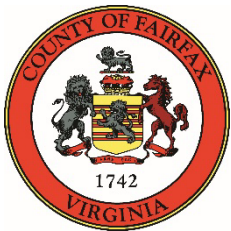


- Shared Use Path between Legato and Steven Drive – (1.7 mile) *variable width*

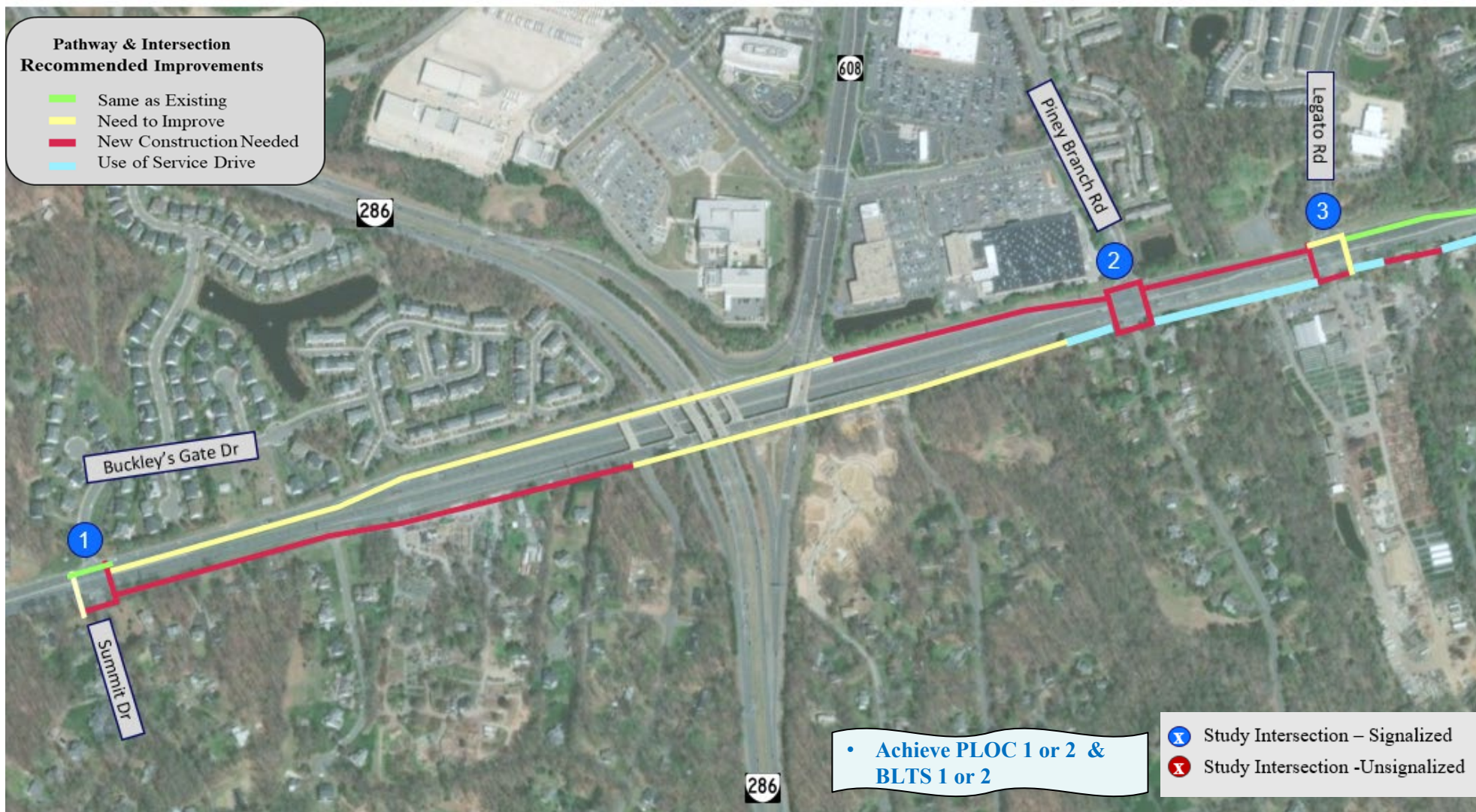
- General lack of attractiveness to bicyclists, meaningful connectivity
- Need for improved shared used path maintenance

Bicycle Level of Traffic Stress (LTS)			
Low Stress			High Stress
LTS 1	LTS 2	LTS 3	LTS 4
comfortable for all ages and abilities	comfortable for most adults	comfortable for confident bicyclists	uncomfortable for most
Physically separated bike lane on low speed, low volume road	Buffered bike lane on a low-speed street	Narrow bike lane or shoulder on a busy street	No bike lane on a busy street

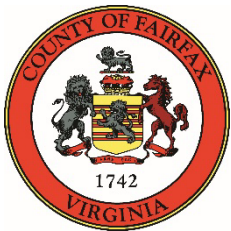




# Corridor Wide Pedestrian and Bicycle Improvements



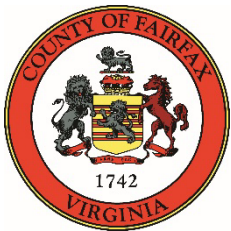




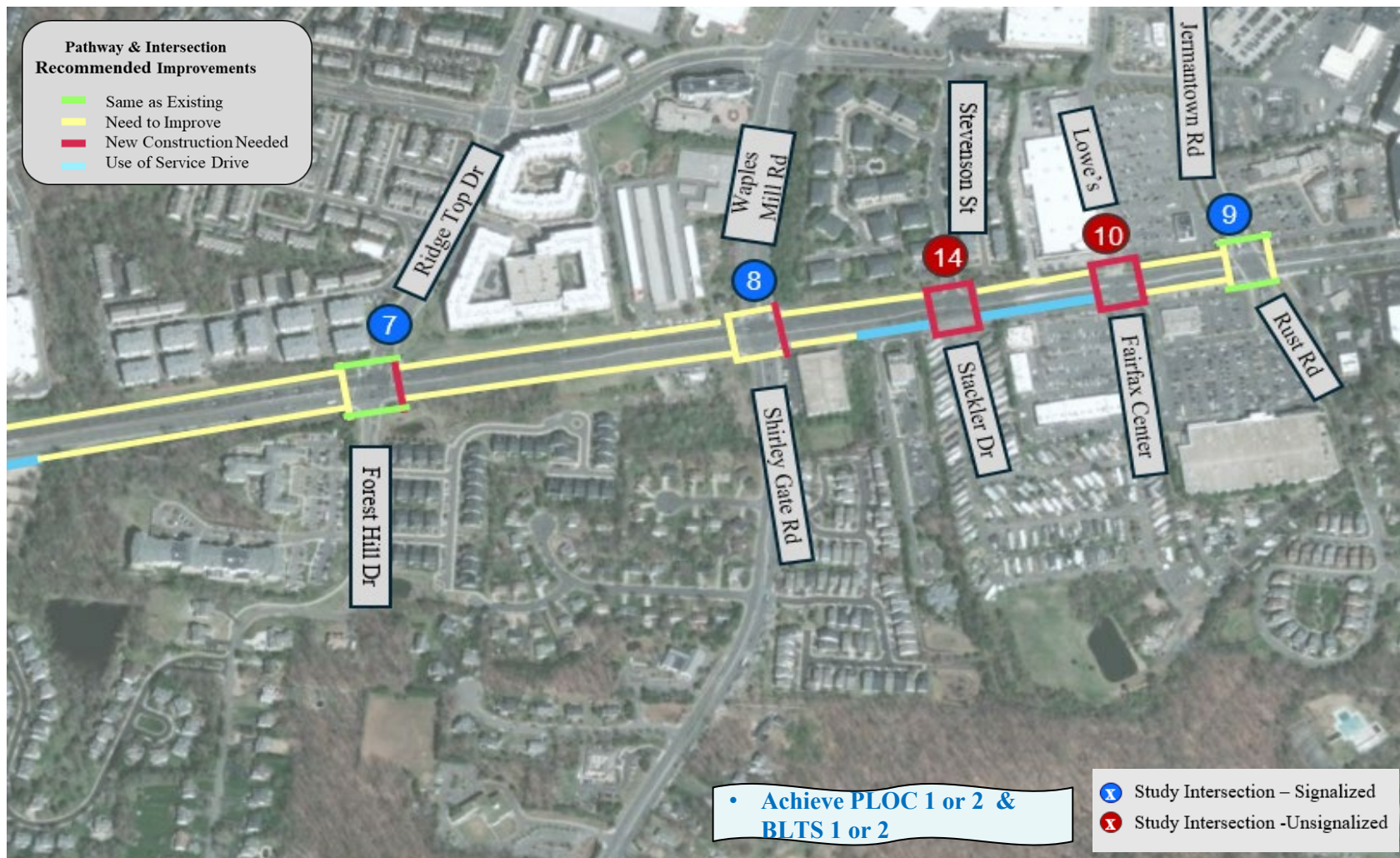
# Corridor Wide Pedestrian and Bicycle Improvements



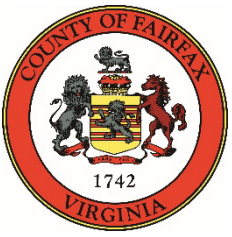




# Corridor Wide Pedestrian and Bicycle Improvements



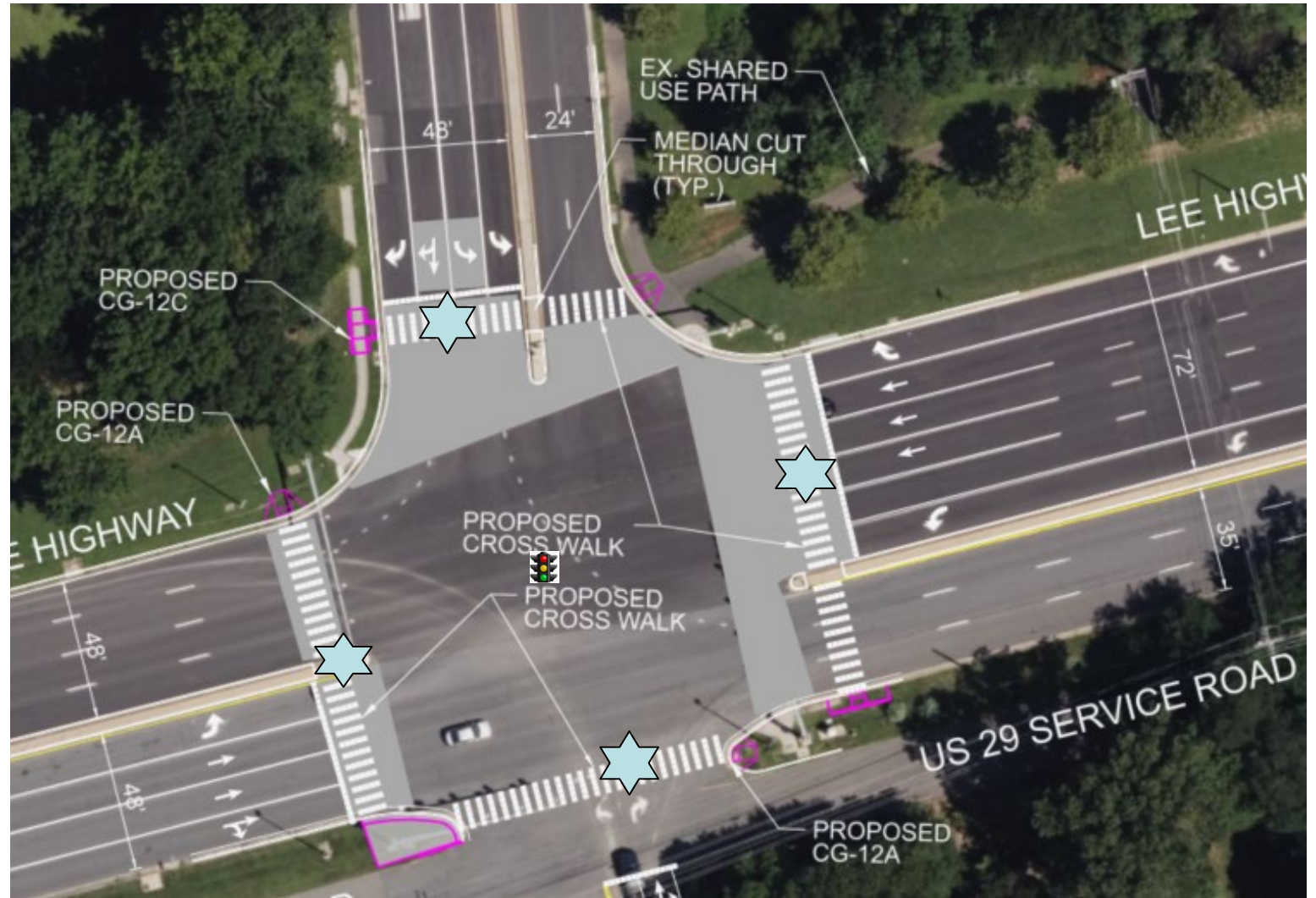


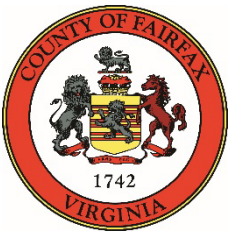


# Intersection Pedestrian Improvements

1. Add crosswalk (striped) at all legs or wherever missing
2. Pull back crosswalks where feasible to shorten crossing distance
3. Provide pedestrian push button for all crosswalk
4. Provide enough flash time for pedestrian crossing

**Achieve a Pedestrian Level of Comfort (PLOC) 1 or 2- Very Comfortable or Comfortable**



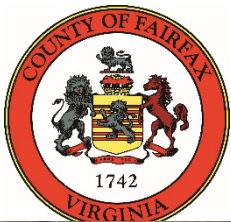


# Alternative Improvements for Planned Interchanges

- Route 29 at Legato Drive
- Route 29 at Monument Drive
- Route 29 at Waples Mill Road and Shirley Gate Road

LOS	Congestion Level	HCM 2000 / HCM 2010 Average Delay (Sec/Veh)	
		Signalized Intersection	Unsignalized Intersection
A	Light Traffic	$\leq 10$	$\leq 10$
B		$> 10 - 20$	$> 10 - 15$
C		$> 20 - 35$	$> 15 - 25$
D	Moderate Traffic	$> 35 - 55$	$> 25 - 35$
E	Heavily Congested Traffic	$> 55 - 80$	$> 35 - 50$
F	Severely Congested Traffic	$> 80$	$> 50$

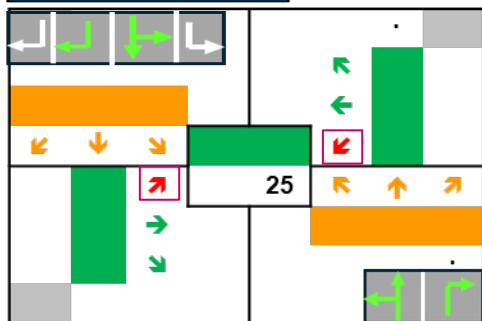




## 2045 Baseline

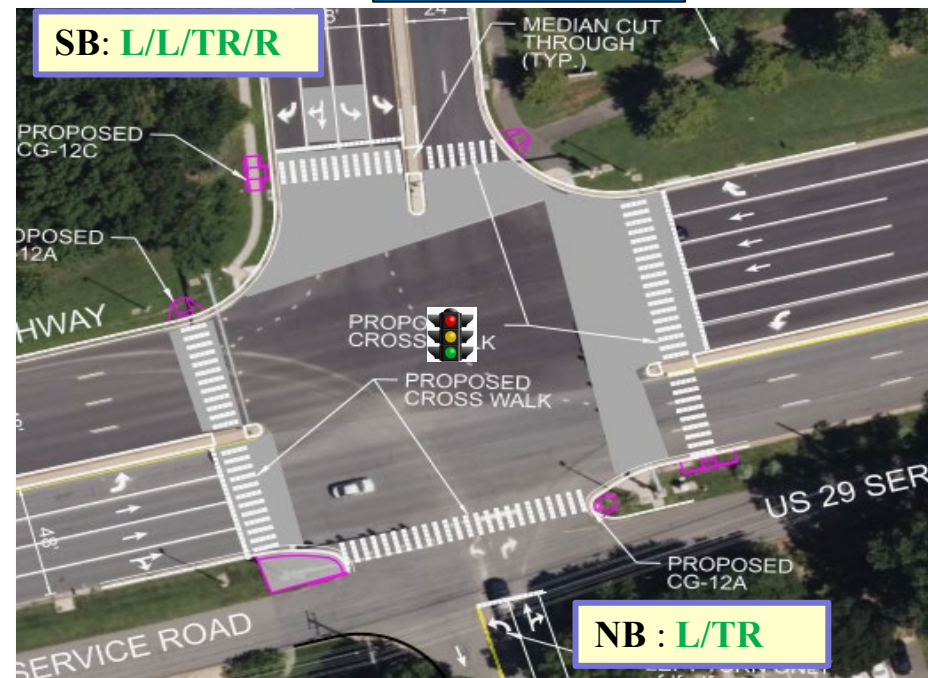


## 2045 PM Baseline

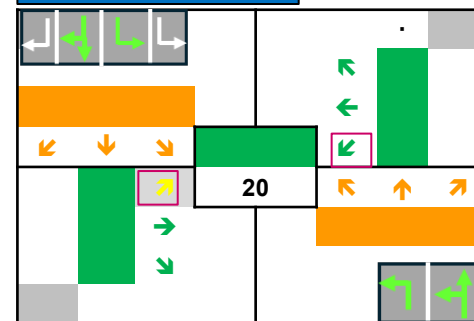


- Significant delay for Route 29 left turns
- No crosswalk at west and south legs of intersection

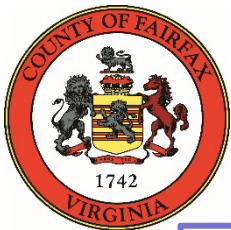
## 2045 Proposed



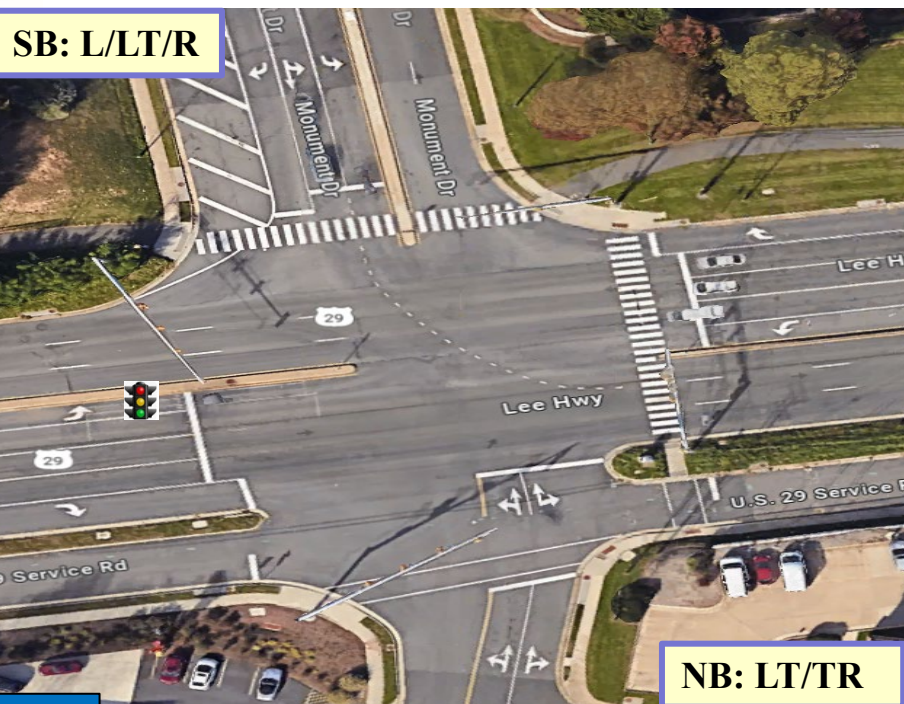
## 2045 PM Proposed



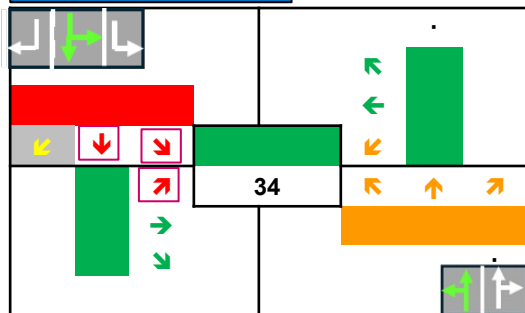
- Change in lane geometry
- Delay improves significantly for EB and EB lefts



## 2045 Baseline

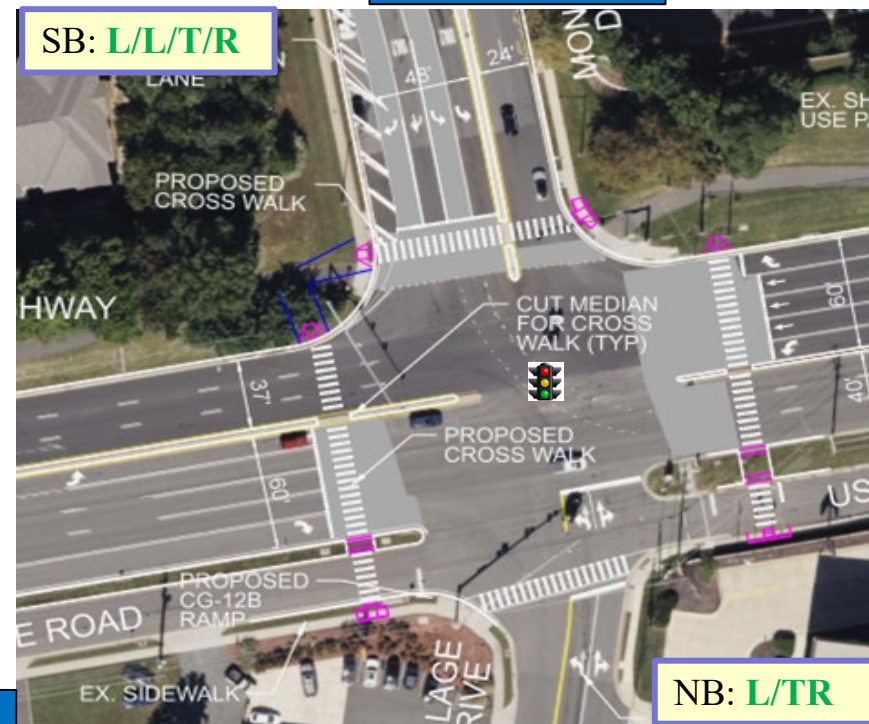


## 2045 AM Baseline

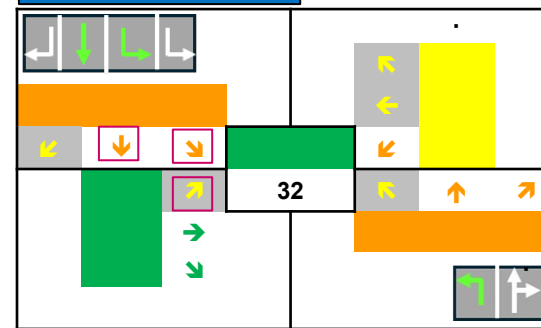


- AM: Queues in SBT and SBL
- Significant delay for Route 29 left turns
- No crosswalk at west leg of intersection

## 2045 Proposed

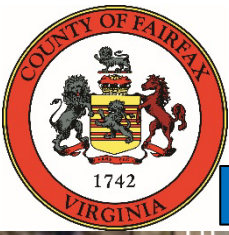


## 2045 AM Proposed



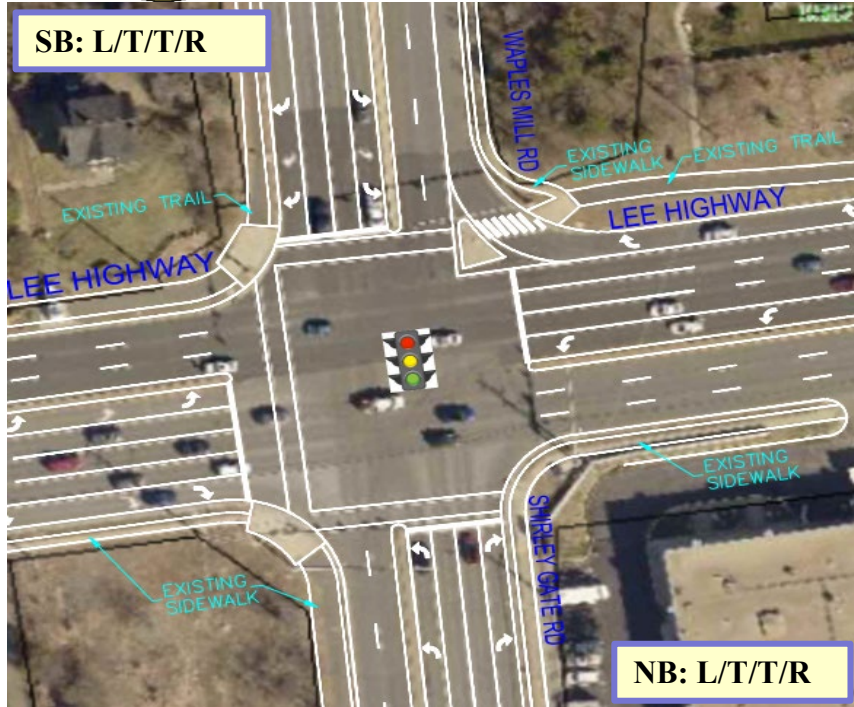
- Change in Lane Geometry – More capacity to SB traffic
- Reduce conflict between crossing pedestrians and turning vehicles





# Route 29 at Shirley Gate Road/Waples Mill Road

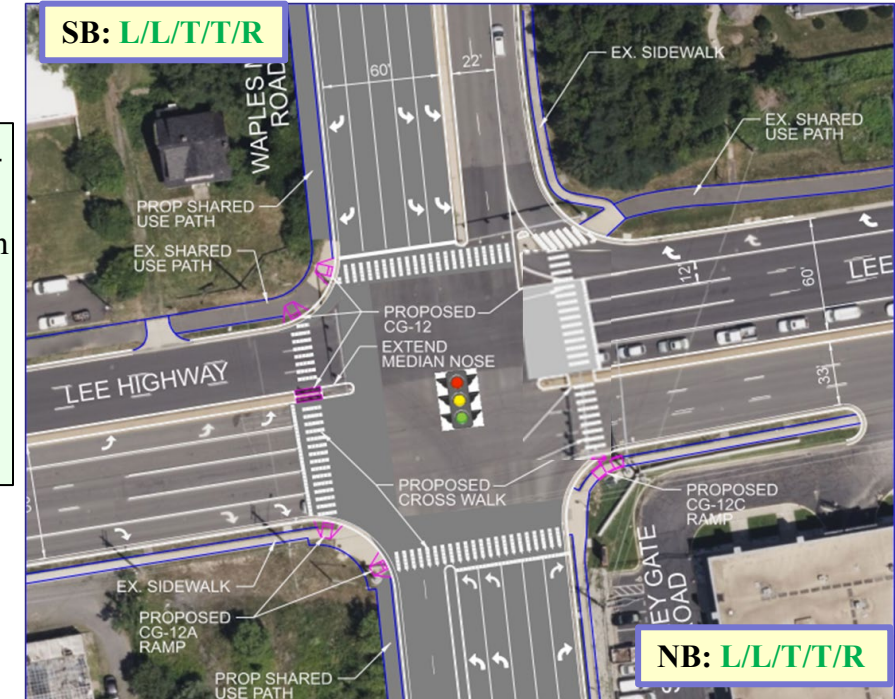
2045 Baseline



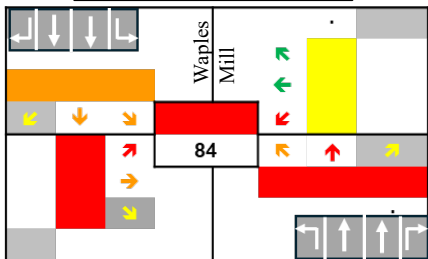
- High volumes from all approaches
- High delays Route 29 left turns
- Long queues NB approach. PM PK
- No crosswalk at west leg of intersection

- Geometry Change- Significantly Improves operation
- Reduce pedestrian crossing distance
- Median Islands reduce pedestrian exposure

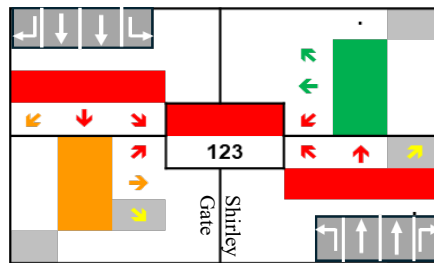
2045 Proposed



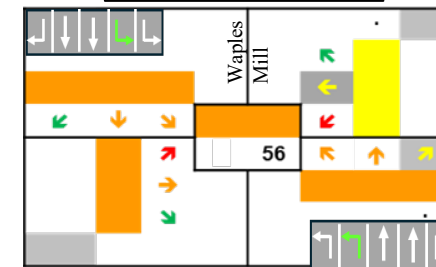
2045 AM Baseline



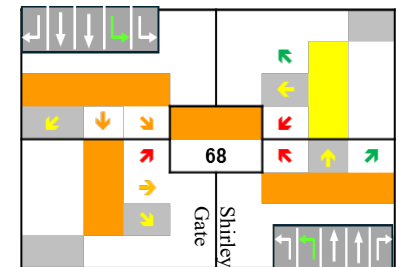
2045 PM Baseline

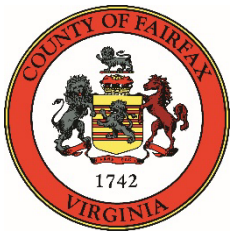


2045 AM proposed

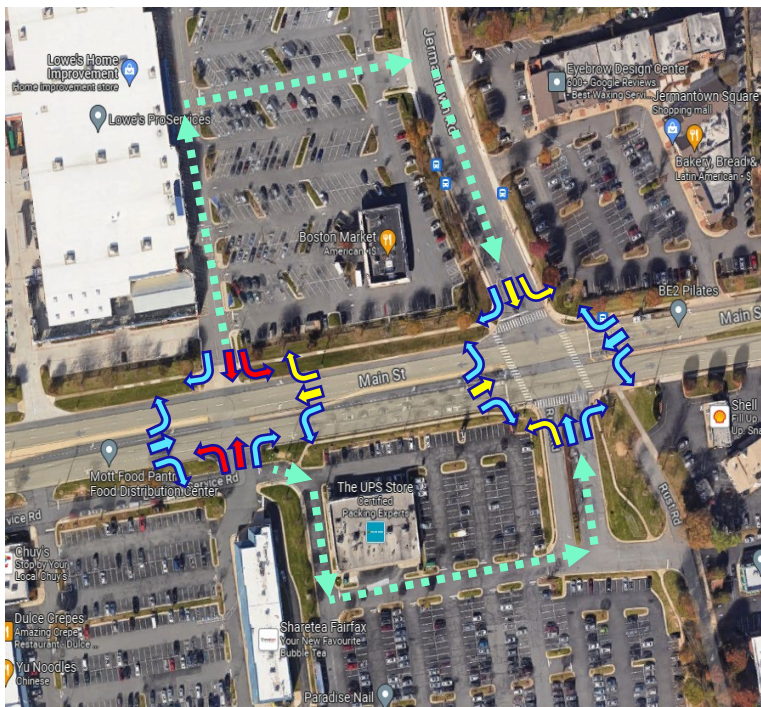
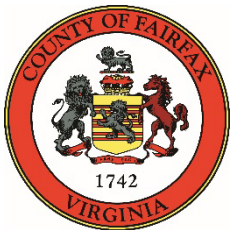


2045 PM Proposed



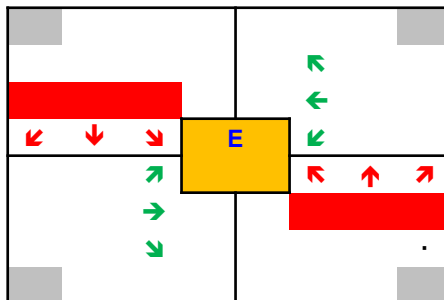


## Other Intersection Improvements

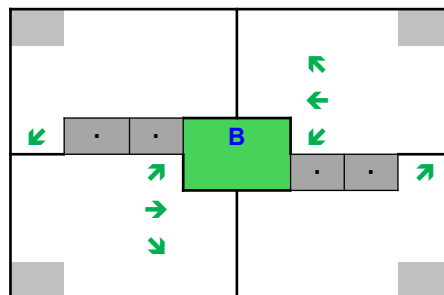


## Lowes Driveway

### 2045 Baseline (PM)



### 2045 Proposed (PM)

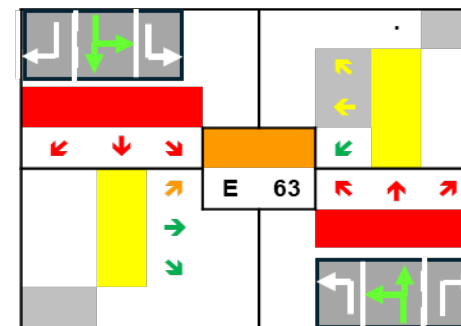


### Lowes Intersection

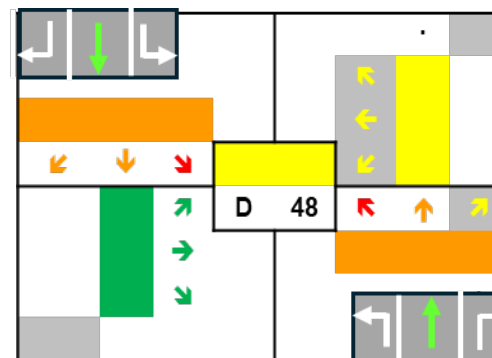
Re-routing would reduce conflict points and improves safety

## Jermantown Road

### 2045 Baseline (PM)



### 2045 proposed (PM)



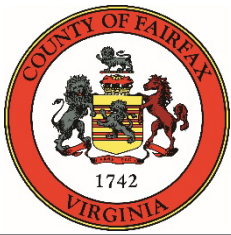
Geometry Change:  
NB & SB

### Jermantown Road

SBT delay improved significantly

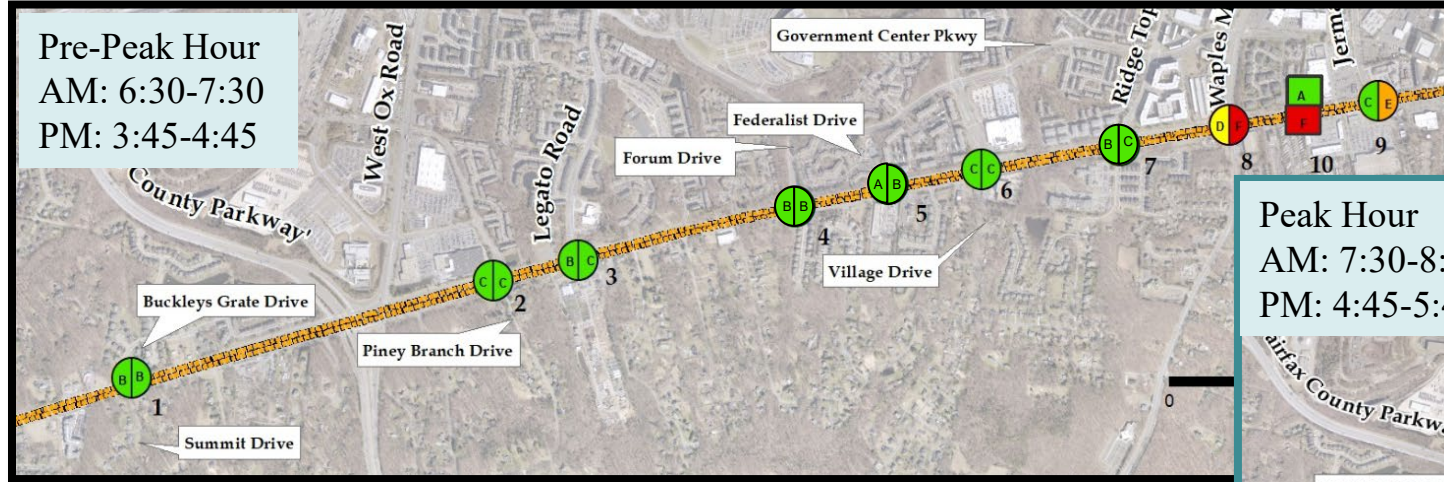
- Prohibited movement
- Movement with volume change
- Detour path



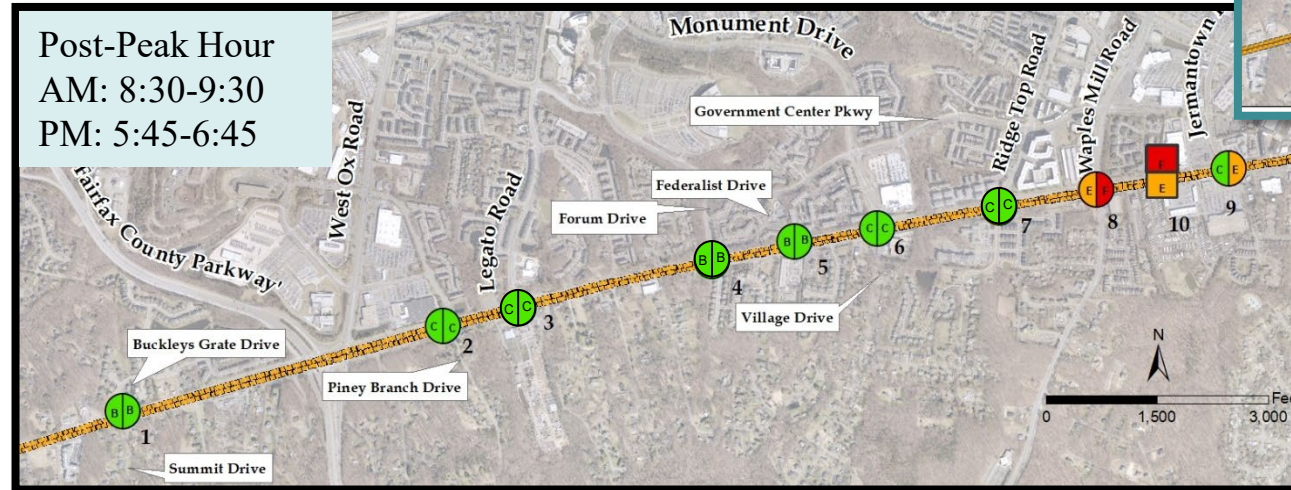


# Overall Intersection Performance

## 2045 Baseline

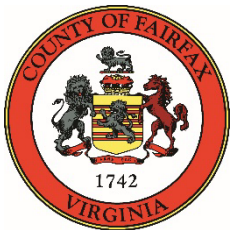


**Peak Hour**  
AM: 7:30-8:30  
PM: 4:45-5:45



	AM		PM	
	Time	Volumes	Time	Volumes
Pre-Peak	6:30 - 7:30	22,943	15:45 - 16:45	29,771
Peak	7:30 - 8:30	25,403	16:45 - 17:45	32,092
Post-Peak	8:30 - 9:30	23,002	17:45 - 18:45	29,098

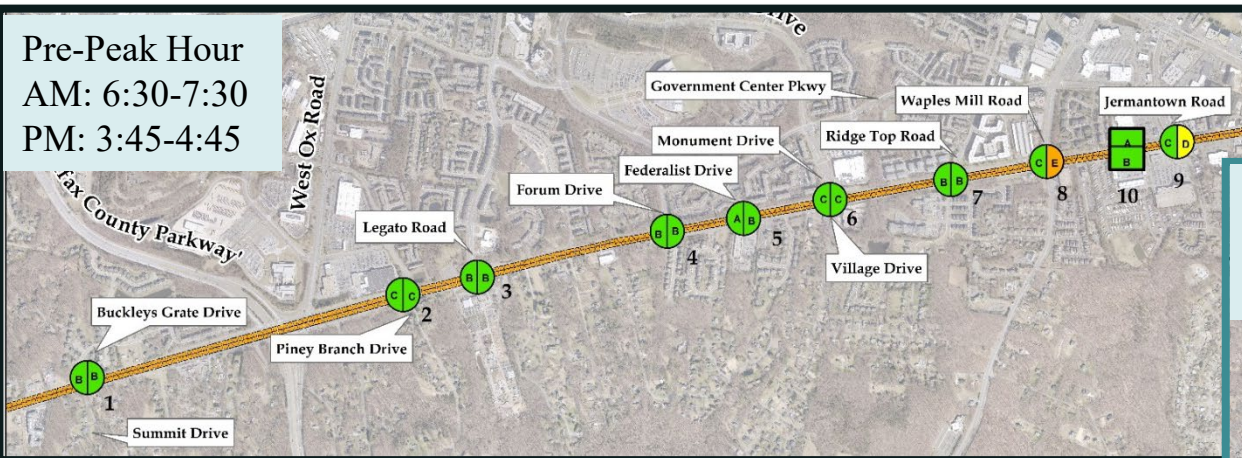




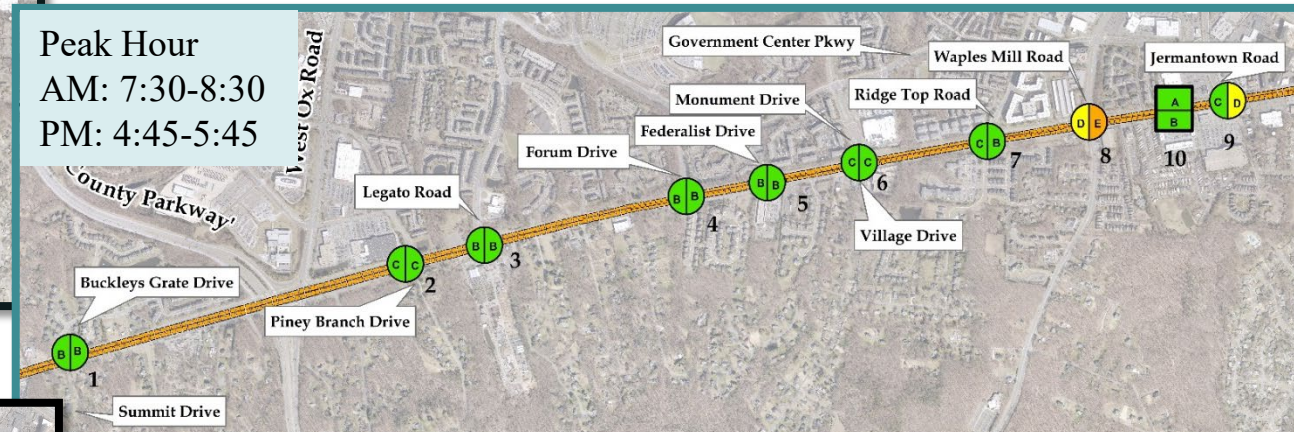
# Overall Intersection Performance

## 2045 Proposed

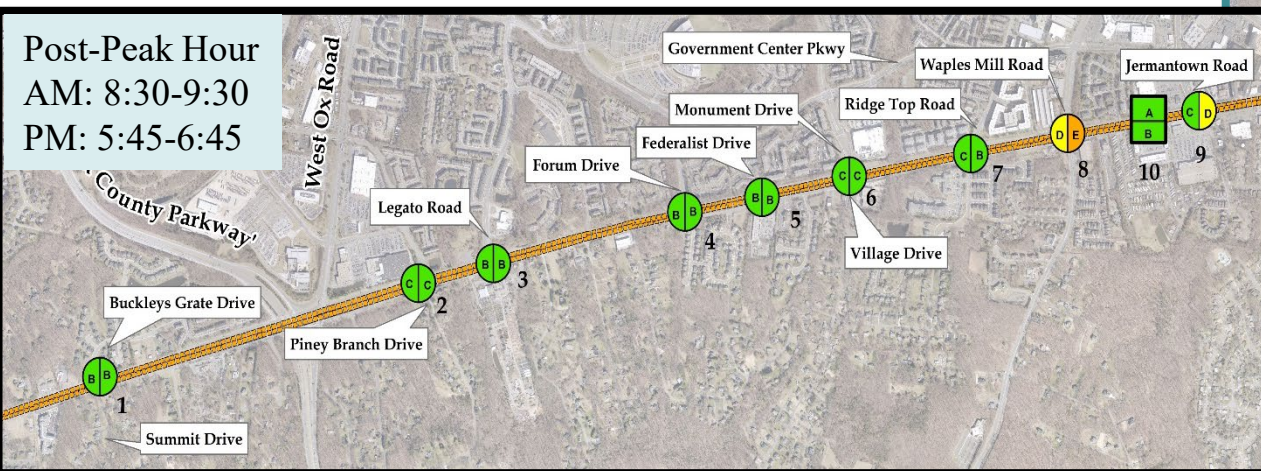
Pre-Peak Hour  
AM: 6:30-7:30  
PM: 3:45-4:45



Peak Hour  
AM: 7:30-8:30  
PM: 4:45-5:45

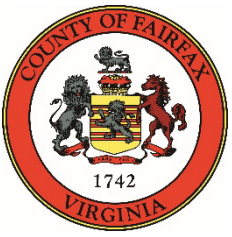


Post-Peak Hour  
AM: 8:30-9:30  
PM: 5:45-6:45



	AM		PM	
	Time	Volumes	Time	Volumes
Pre-Peak	6:30 - 7:30	22,943	15:45 - 16:45	29,771
Peak	7:30 - 8:30	25,403	16:45 - 17:45	32,092
Post-Peak	8:30 - 9:30	23,002	17:45 - 18:45	29,098





## Findings

- ❑ *Recommend removal of the interchanges at three locations*
- ❑ *Add supportive active transportation recommendations*
- ❑ *Intersection improvements along the corridor*

## Public Feedback

### Survey Link

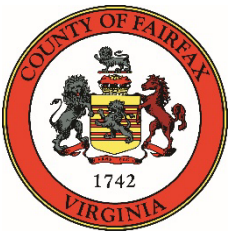
- <https://publicinput.com/s5732>

### Phone #

- # 703-890-5898 (code) 1312

### Project Website

- <https://www.fairfaxcounty.gov/transportation/study/route29>



# Next Steps & Funding

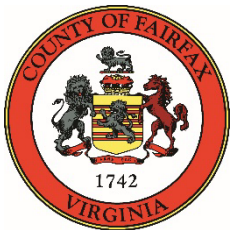
## Next Steps

- ▶ Review & incorporate survey feedback
- ▶ VDOT/City of Fairfax review
- ▶ Finalize Study
- ▶ Board authorization for Comprehensive Plan Amendment

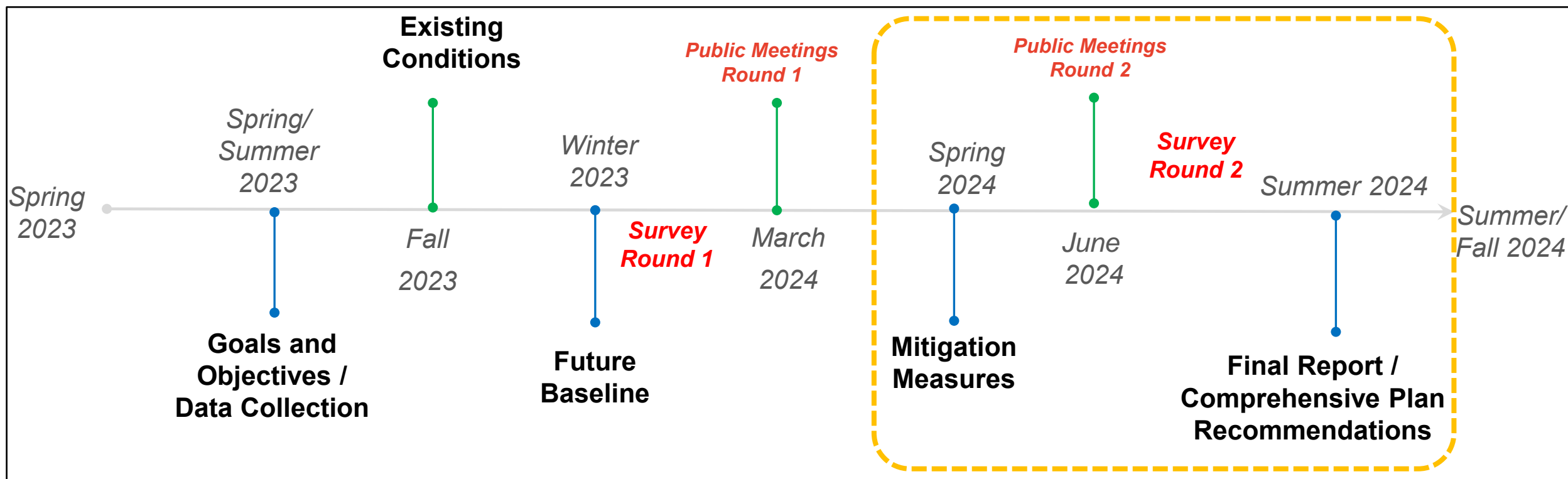
## Funding

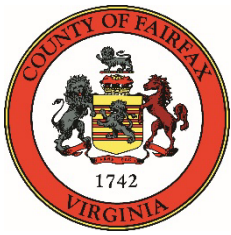
- ▶ Prioritize recommendations
- ▶ Add to Transportation Priority Plan (TPP)
- ▶ Identify funding sources





# Study Timeline





# Questions / Comments

- Type your question in the chat box
- Raise your virtual hand
- If you are joining us by phone,
  - Please push \*5 to raise your hand to ask a question
  - When you are finished, please push \*6 and then \*5 to lower your hand

