



# County of Fairfax, Virginia



County of Fairfax, Virginia

## Shirley Gate Road Extended Corridor Planning Study

Supervisor Pat Herrity

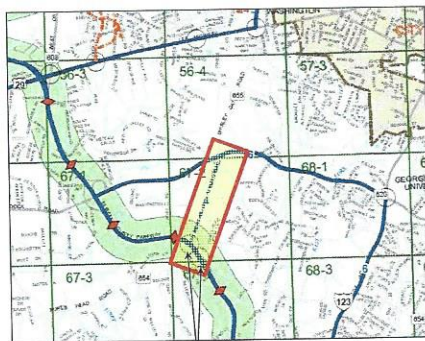
September 6, 2016



County of Fairfax, Virginia

Shirley Gate Road Extended  
Corridor Planning Study

### Project Purpose and Need



- The Shirley Gate Road Extension has been on County's Transportation Plan since 1991
- Grade-Separated Interchanges on Fairfax County Parkway needed to relieve congestion and improve safety.



2



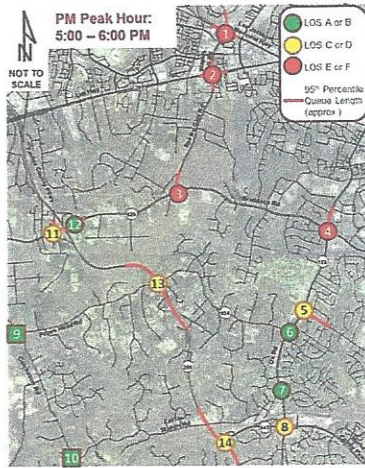
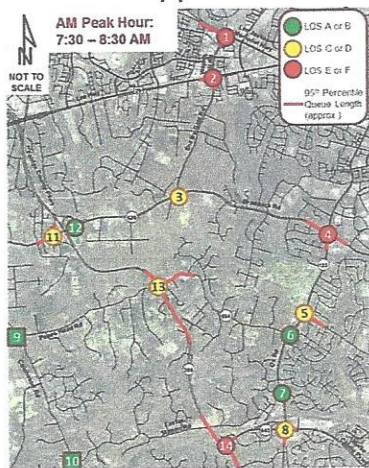
# County of Fairfax, Virginia



County of Fairfax, Virginia

Shirley Gate Road Extended  
Corridor Planning Study

## Analysis of Existing Conditions LOS and Approximate 95<sup>th</sup> Percentile Queue Lengths



Department of Transportation



3

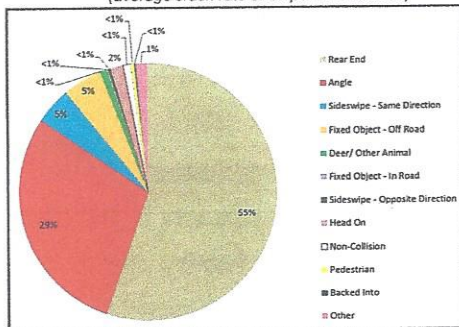


County of Fairfax, Virginia

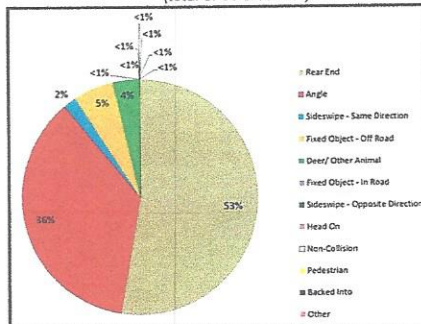
Shirley Gate Road Extended  
Corridor Planning Study

## Crash Analysis

Average Intersection Crash Rates  
along Fairfax County Parkway  
(average crash rate of 25 per intersection\*)



Popes Head Road  
Intersection Crash Rates  
(total of 55 crashes\*)



\*Fairfax County Parkway crash data from  
2010-2013

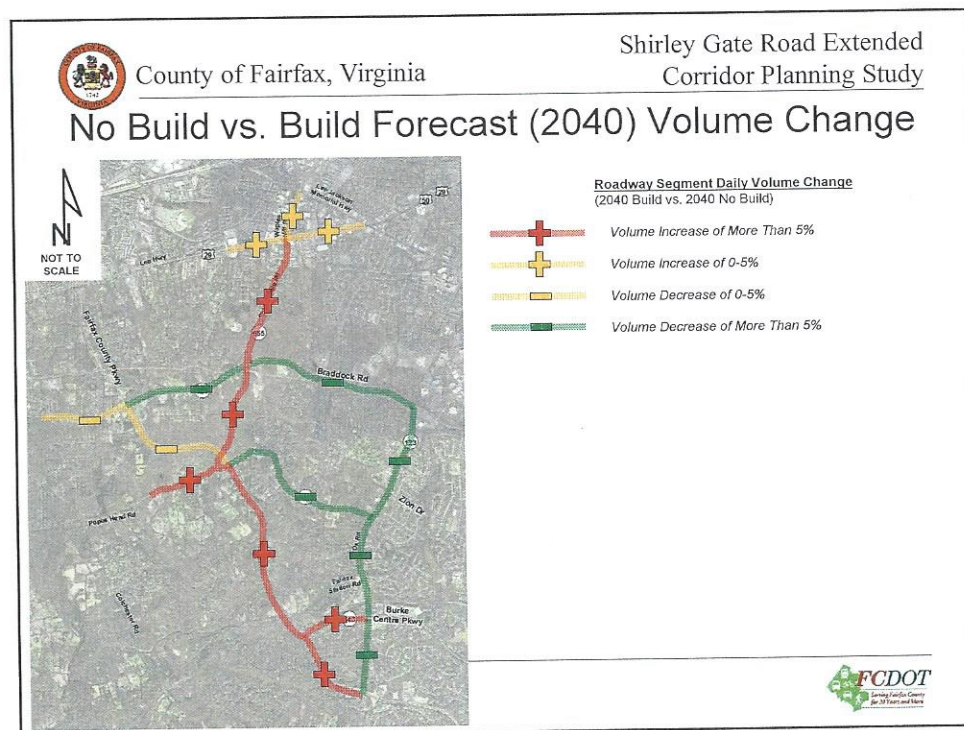
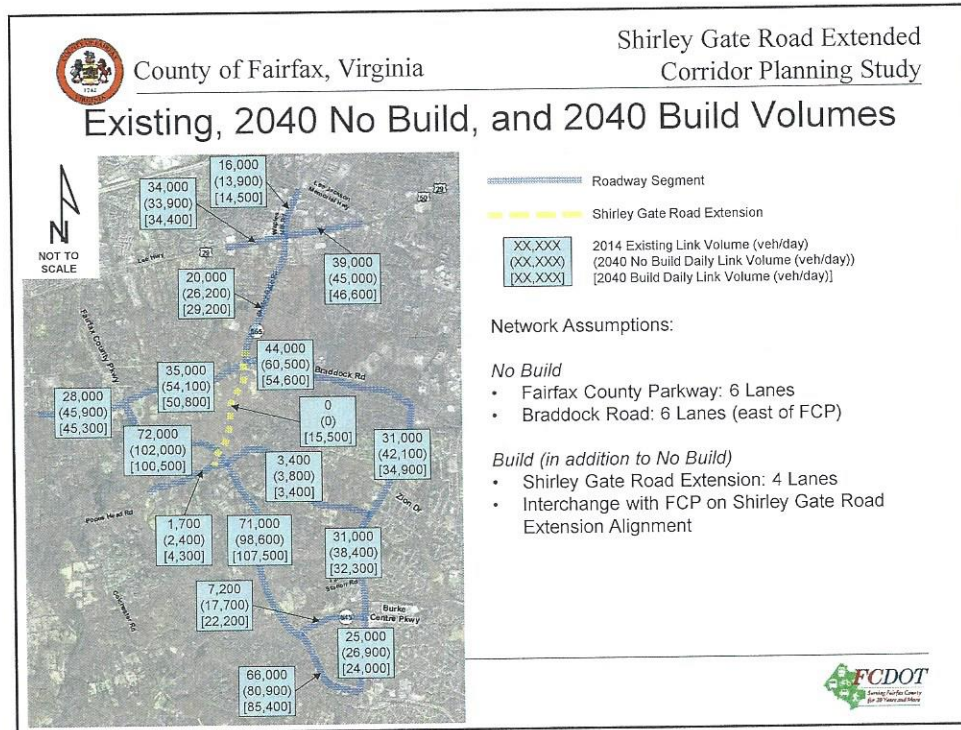
4







# County of Fairfax, Virginia






## County of Fairfax, Virginia



County of Fairfax, Virginia

### Comparable Road Traffic Volumes

- Clifton Road (Rt. 29 to Braddock Rd) 16,000 vpd
- Clifton Road (Braddock Rd to Popes Head Rd) 8,900 vpd
- Old Colchester Rd. (Popes Head Rd. to Braddock Rd) 3,200 vpd
- Compton Rd. (Union Mill Rd to Clifton Rd) 1,600 vpd
- Popes Head Road (Fairfax County Parkway to Route 123) 3,400 vpd

(Source: Shirley Gate Study<sup>7</sup> and VDOT Count Data) 



County of Fairfax, Virginia

### 2015 Study of Alignment Options for Shirley Gate Road Extended and Interchange Options

8





# County of Fairfax, Virginia



County of Fairfax, Virginia

Shirley Gate Road Extended  
Corridor Planning Study

## Stakeholder Screening of Alternatives

- Five meetings held between May and September 2015
  - Guided the development of measures of effectiveness (MOEs)
  - Provided adjustments to weighting values
- Major categories of MOEs used for alignment selection:
  - Impacts to Adjacent Properties
  - Impacts on Transportation System
  - Cost

9



County of Fairfax, Virginia

## December 2015 Public Meeting

- 100+ Attendees
- Existing Traffic Issues
- Future Traffic Network
- Prior input from Stakeholders on Measures of Effectiveness(MOE), used in evaluation of future road alignments and interchange concepts
- Next Steps

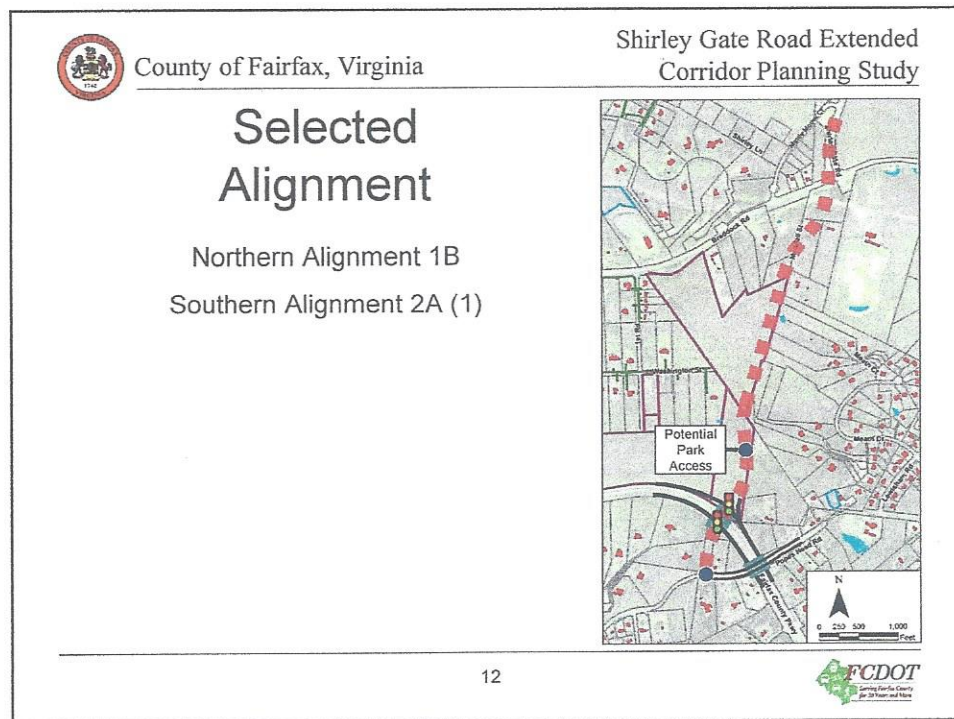
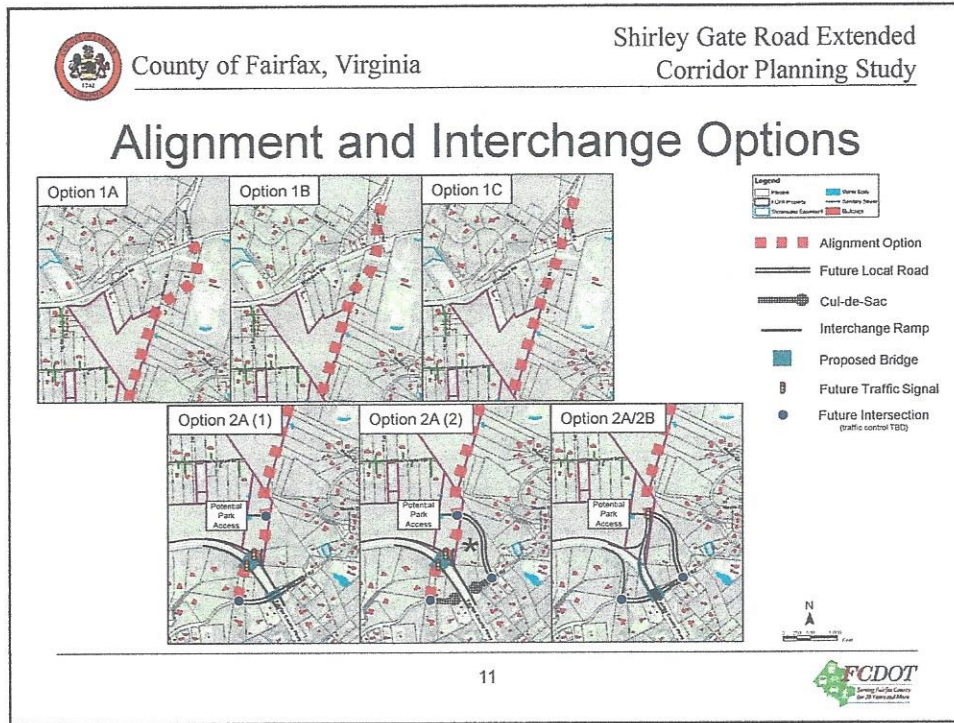
10





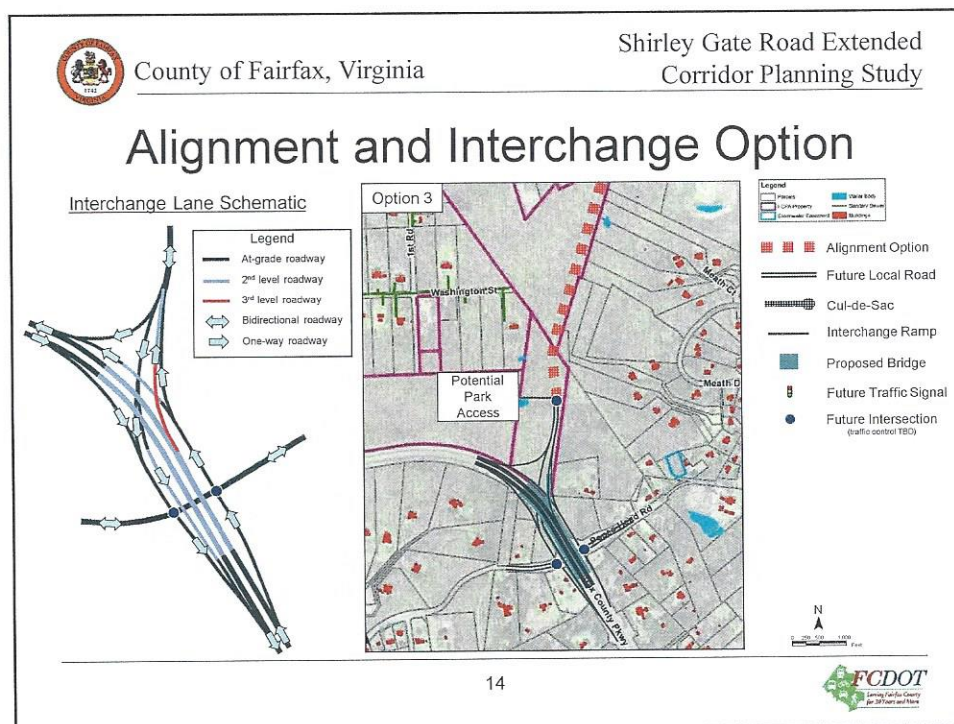
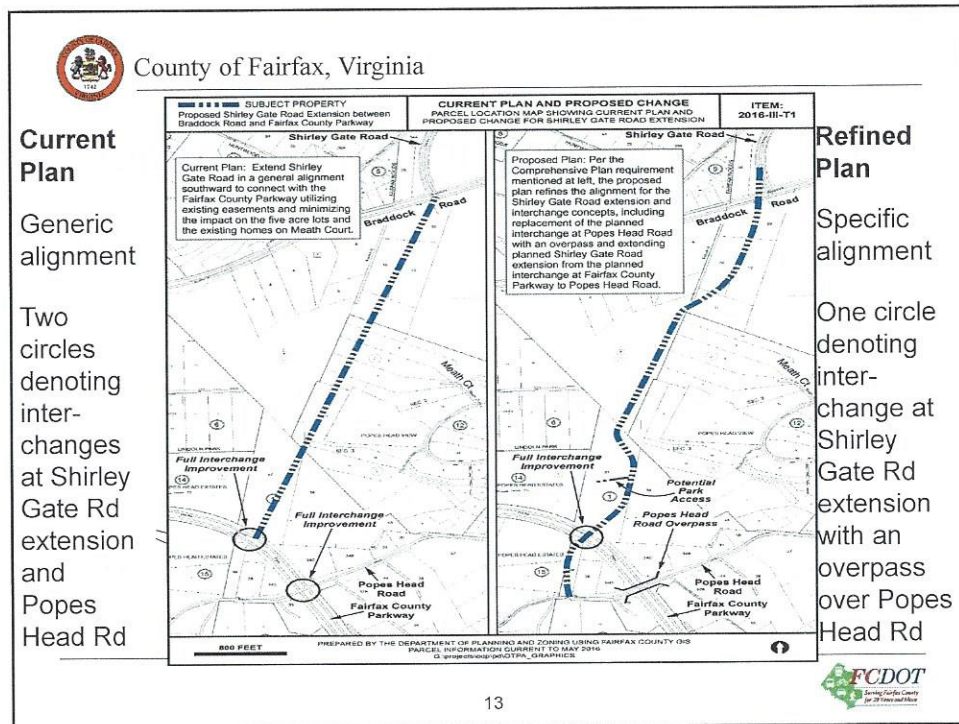


# County of Fairfax, Virginia





# County of Fairfax, Virginia







## County of Fairfax, Virginia



County of Fairfax, Virginia

### Objectives for Design of Interchanges

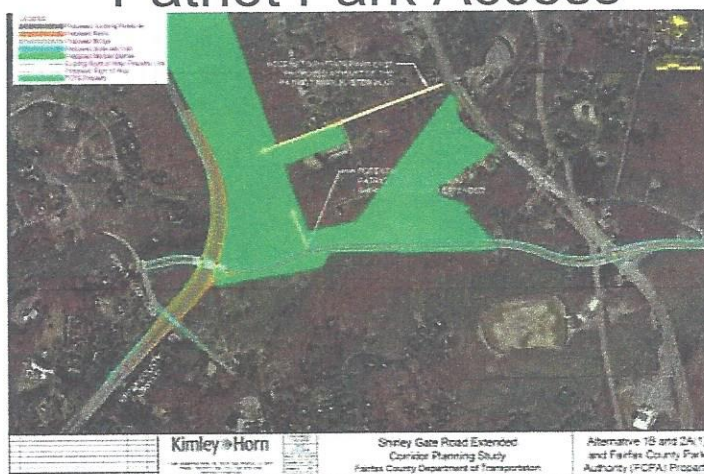
- Allows Free Flow on Fairfax County Parkway
- Accommodates Shirley Gate Extension and accommodates all movements
- Provides Access to Patriot Park
- Minimizes Impact to Adjacent Properties

15



County of Fairfax, Virginia

### Patriot Park Access



Department of Transportation

16





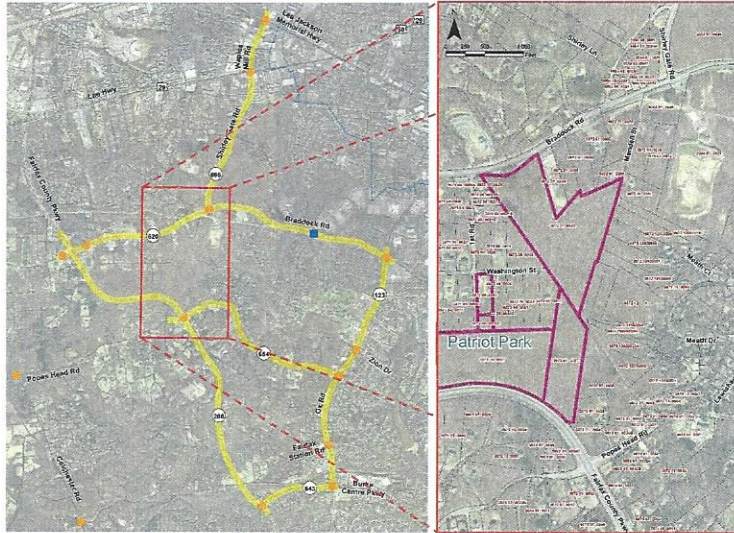


# County of Fairfax, Virginia



County of Fairfax, Virginia

## Shirley Gate Road Extended Corridor Planning Study



17



County of Fairfax, Virginia

## Shirley Gate Road Extended Corridor Planning Study

### Benefits of Shirley Gate Road Extension and Interchange Improvements

- Reduced traffic volumes along area roadways/intersections
  - Braddock Road
  - Route 123
  - Intersection of Route 123 and Braddock Road
  - Popes Head Road (north of FCP)
- Improved safety at FCP/Popes Head Road
- Reduced travel times along Fairfax County Parkway (FCP) and Popes Head Road
- Improved accessibility to FCP for Popes Head Road residents
- Improved access to the west end of the City of Fairfax/Fair Oaks



18



# County of Fairfax, Virginia



County of Fairfax, Virginia

Shirley Gate Road Extended  
Corridor Planning Study

## Mitigation Considerations

- Follow-up Analysis/Coordination regarding Shirley Gate Road Access (Route 29 to Braddock Road)
- Continuing efforts to improve intersection operations
  - Shirley Gate Road/Route 29 (Lee Highway)
  - Waples Mill Road/Route 50 (possibly through Transform66 implementation)
- Coordination with City of Fairfax
  - Extending Government Center Parkway to Jermantown Road
  - Widening of Jermantown Road north of Route 50 to four lanes
- Identification of improvements during imminent Fairfax County Parkway Long Term Study
- Address access for residential streets that only access the Parkway
- Address geometric issues (vertical & horizontal) on Popes Head Rd. west of Fairfax County Parkway

19



County of Fairfax, Virginia

## Next Steps

- Design - Fairfax County Parkway Widening (Route 29 to Route 123 (VDOT to advertise design contract summer 2016))
- Extensive Public Involvement throughout design and construction
- Funding
  - \$20 million approved to date for Design and Right-of-Way
    - (\$10 million approved by NVTA on July 14, 2016)
- Comprehensive Plan Amendment – Defer pending design completion

20







# County of Fairfax, Virginia

---



County of Fairfax, Virginia

---

## Questions?

Alan Kessler  
Leonard Wolfenstein  
Fairfax County Department of Transportation  
[Alan.Kessler@FairfaxCounty.gov](mailto:Alan.Kessler@FairfaxCounty.gov)  
(703) 877-5600

---

21

