



Community Meeting to Discuss:
West Poplar Road
Traffic Analysis to Address Safety Concerns

July 12, 2018



Agenda:

- ➡ • Study Background
 - Data Collection
 - Analysis and Recommendations
 - Next Steps





Study Background:

- Residents of the Sterling Park community and staff of the Guilford Elementary School expressed concerns to the Loudoun County Sterling District Supervisor's Office regarding:
 - Pedestrian Safety
 - Congestion
 - Curbside Parking
 - School Traffic



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WHERE TRADITION MEETS INNOVATION





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Data Collection:

Traffic & Pedestrian Volumes

- May 2017
 - 4-hour weekday pedestrian and turning movement counts
 - 5-intersections counted
 - #1 West Poplar Road and South Sterling Boulevard
 - #5 West Poplar Road and South Dogwood Street
 - #6 West Poplar Road and the Bus Loop Entrance
 - #7 West Poplar Road and the Bus Loop Exit
 - #10 West Poplar Road and South Greenthorn Avenue



Data Collection:

Roadway Geometry –

- Built in the 60's
- Existing roadway width varies from 29'- 9" to 30'- 4".
- These widths cannot accommodate two-way traffic with parking on both sides

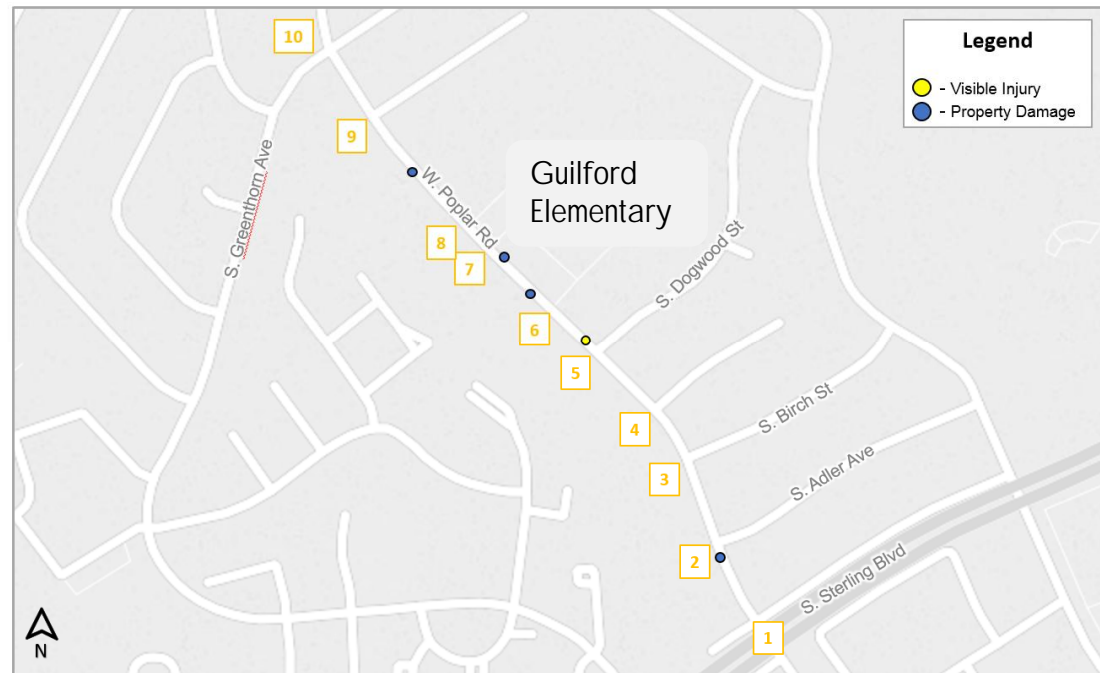
Location along West Poplar Road	Total Width (FOC-FOC)
Required Width (FOC-FOC)	36'-0"
S. Greenthorn Ave (#10) to S. Filbert Ct (#9)	30'-0"
S. Filbert Ct (#9) to School Parking Lot (#8)	30'-4"
Bus Loop Entrance (#6) to S. Dogwood St (#5)	29'-9"
S. Cypress Ct (#4) to S. Birch St (#3)	29'-9"
S. Alder Ave (#2) to S. Sterling Blvd (#1)	29'-11"



Data Collection: Crash Data

- January 2014 to June 2017

Collision Type	Date	Time	Route Name	Crash Severity	Notes
Sideswipe - Same Direction	8/22/2015	3 AM to 6 AM	W. Poplar Rd	Property Damage Only	Cell Phone Distraction. Struck two parked vehicles.
Sideswipe - Same Direction	2/9/2016	9 AM to 12 PM	W. Poplar Rd	Property Damage Only	
Angle	11/6/2016	3 AM to 6 AM	W. Poplar Rd	Property Damage Only	Vehicle Theft. Struck parked vehicle in driveway.
Sideswipe - Same Direction	5/14/2017	3 AM to 6 AM	W. Poplar Rd	Property Damage Only	Struck parked vehicle
Rear End	6/2/2017	3 PM to 6 PM	W. Poplar Rd	Visible Injury	Minor injuries



Data Collection: Parking Data

Parking Inventory								
West Poplar Road Section	Morning (7:30 AM)		Midday (11:30 AM)		School Pickup (2:30 PM)		Evening (8:30 PM)	
	Southbound Curbside	Northbound Curbside	Southbound Curbside	Northbound Curbside	Southbound Curbside	Northbound Curbside	Southbound Curbside	Northbound Curbside
S. Greenthorn Ave (#10) to S. Filbert Ct. (#9)	0	0	1	0	4	1	2	0
S. Filbert Ct. (#9) to School Parking Lot (#8)	5	9	5	6	16	18	7	6
School Parking Lot (#8) to Bus Loop Exit (#7)	3	0	1	0	4	0	2	0
Bus Loop Exit (#7) to Bus Loop Entrance (#6)	7	4	3	2	10	7	7	7
Bus Loop Entrance (#6) to S. Dogwood St. (#5)	4	3	2	1	0	6	4	1
S. Dogwood St. (#5) to S. Cypress Ct. (#4)	3	0	0	0	2	8	3	0
S. Cypress Ct. (#4) to S. Birch St. (#3)	4	0	0	0	1	1	4	0
S. Birch St. (#3) to S. Alder Ave. (#2)	4	2	2	1	2	1	5	3
S. Alder Ave. (#2) to S. Sterling Blvd (#1)	2	4	0	3	1	3	3	3
Total Vehicles	54		27		85		57	





Data Collection:

Intersection Sight Distance

- Cypress Ct - Tree on SE corner
- Dogwood St - Vertical Alignment Issue
- Loop Entrance – Tree on SE corner

Sight Distance		
Street	Looking North (ft)	Looking South (ft)
Required	335	
S. Cypress Ct. (#4)	340	120
S. Dogwood St. (#5)	280	575
Bus Loop Entrance (#6)	630	115
Bus Loop Exit (#7)	720	355
School Parking Lot (#8)	690	400

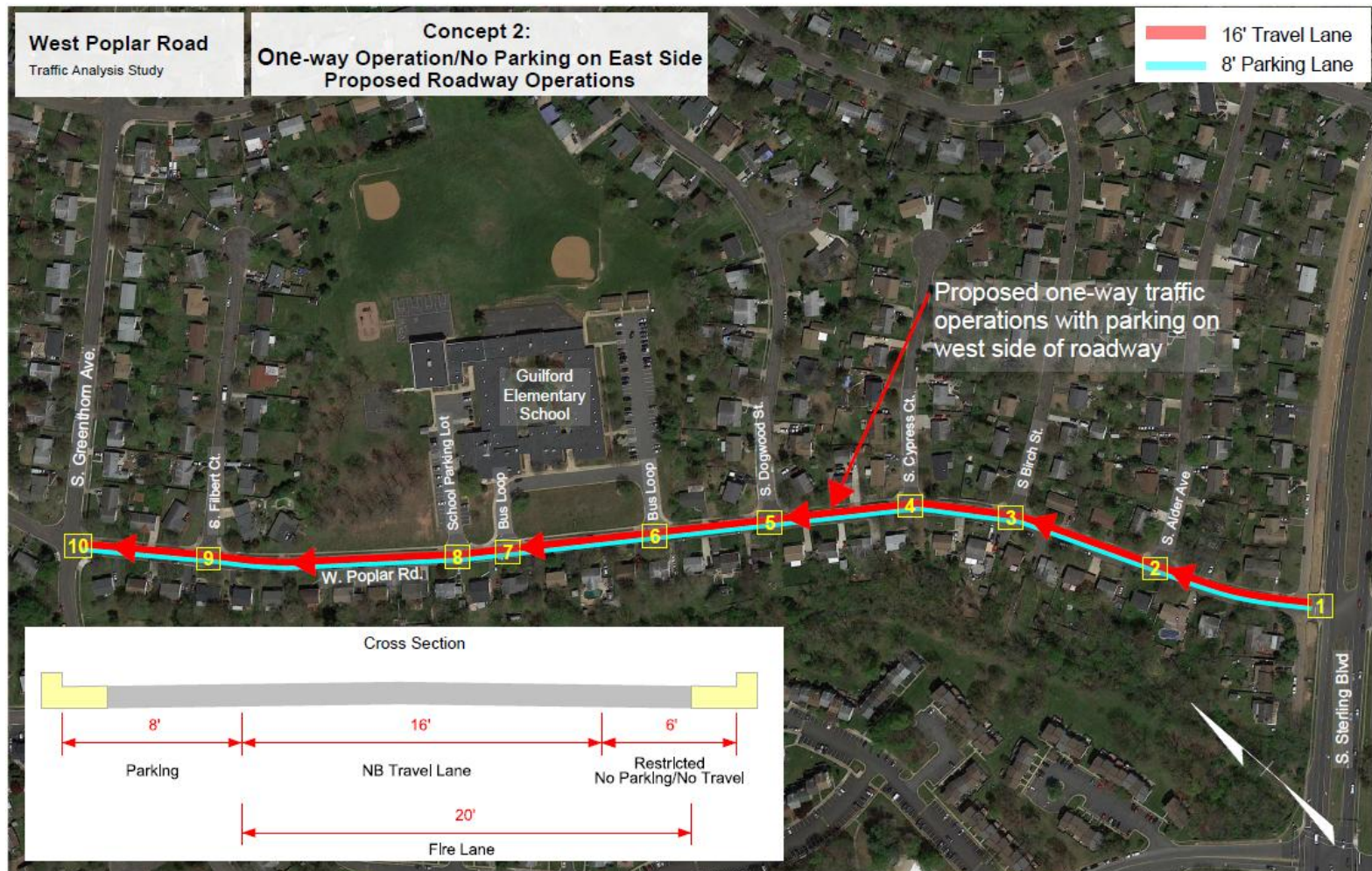


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Recommendations:





Existing and Conceptual Roadway Examples:



Cornwall Street, Leesburg VA



Proposed Rendering
West Poplar Road, Sterling VA



S. Sterling Boulevard Access:



Operations:

- Level of Service was analyzed for the existing and proposed conditions and no negative impacts to vehicle travel were identified.
- The Loudoun County Fire Marshall also ran a Box Area Run Builder to determine impacts to response times due to the proposed recommendations and determined there would be no impact to response times.

	Intersection	Approach	Existing AM (PM)	Recommended AM (PM)
#1	S. Sterling Blvd W. Poplar Rd	EB	B (B)	B (B)
		WB	A (B)	A (B)
		SB	F (F)	-
		NB	F (F)	E (D)
#5	W. Poplar Rd S. Dogwood St	WB	B (A)	B (A)
		SB	A (A)	-
		NB	-	-
#6	W. Poplar Rd School Entrance	WB	B (A)	A (A)
		SB	A (A)	-
		NB	-	-
#7	W. Poplar Rd School Exit	WB	A (A)	A (A)
		SB	-	-
		NB	-	-
#10	W. Poplar Rd S. Greenthorn Ave	EB	A (B)	B (B)
		WB	B (B)	B (B)
		SB	-	-
		NB	A (A)	A (A)





Recommended Option:

- Recommended by stakeholders including VDOT, LCPS, LCSO, LCF&R, and DTCL.
 - LCPS Transportation benefits from the operational improvements
 - Provides a fire lane and room for emergency vehicles
 - Addresses congestion during peak hours and restricts parking
 - Provides residential parking and room for vehicle queues during parent pick up/drop off



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Next Steps

- Report back to the BOS to identify funding for the recommended improvements.

