

Prince William County
Safe Routes to School (SRTS)

**Gap Analysis
and Priority
Recommendations**

June 2020





Prince William County Safe Routes to School (SRTS) Gap Analysis and Priority Recommendations

JUNE 2020

CONTENTS

I.	INTRODUCTION AND PURPOSE	1
II.	PROJECT SCOPE AND METHODOLOGY	3
	A. School Selection Process	3
	B. Analysis Area	5
III.	CONNECTIVITY GAP ANALYSIS.....	5
	A. Sidewalk Connectivity Gaps.....	5
	B. Crosswalk Observations	8
IV.	PRIORITY ROUTES.....	13
	A. Methodology.....	13
	B. Analysis.....	15
V.	RECOMMENDATIONS	18
	A. Gainesville/Route 29 SAP	19
	B. North Woodbridge SAP	21
	C. Yorkshire SAP	23

ATTACHMENT 1: TLC SRTS Grant – School Selection Process

ATTACHMENT 2: Gap Analysis and Priority Routes Mapping



I. INTRODUCTION AND PURPOSE

The Prince William County (PWC) Department of Transportation (DOT), in coordination with PWC Planning Office and PWC Public Schools, is developing a Safe Routes to School (SRTS) plan for twelve schools located within the Small Area Plan (SAP) areas of Gainesville/Route 29, North Woodbridge, and Yorkshire (**Figure 1: Location Map**). Each of the SAPS areas overlap with Metropolitan Washington Council of Governments (MWCOC) Transportation Planning Board (TPB) Regional Activity Centers, designated locations planned to accommodate the majority of the region's future growth and play a central role in achieving prosperity, sustainability, accessibility, and livability goals. This project planning effort is being conducted under the MWCOC Transportation / Land Use Connections (TLC) grant program. Development of the SRTS plan was initiated with a gap analysis, which focused on identifying pedestrian and bike gaps within the SAP areas, the development of priority route criteria and analysis of gaps to identify priority routes, and the development of recommendations for SRTS improvements. This analysis also reviewed school entrances to identify those with no defined crosswalk, as well as signalized or stop controlled intersections that had existing crosswalks that were not high-visibility crosswalks (crosswalks marked using longitudinal lines or bar pairs).

Safe Routes to School is a program that promotes walking and bicycling to school by providing safe and accessible routes for children to walk and bike to school. The SRTS program includes a combination of education, encouragement, engineering, and enforcement strategies. The SRTS improvements for this project focused on the engineering strategies by identifying the sidewalk and bike infrastructure improvements needed to provide safe routes.

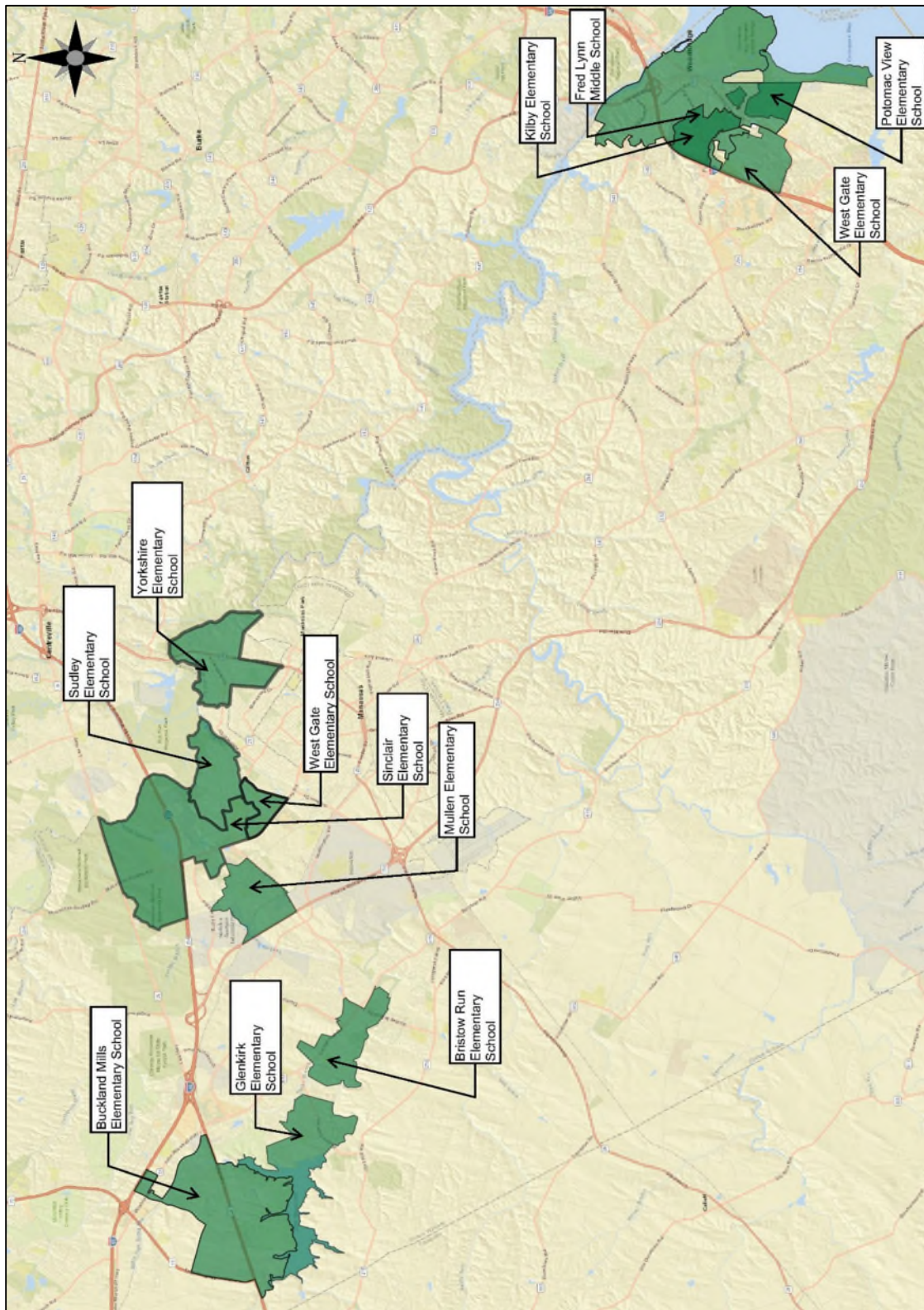


Figure 1: School Location Map



II. PROJECT SCOPE AND METHODOLOGY

A. School Selection Process

PWC DOT identified all 32 PWC Public Schools within the Gainesville/Route 29, North Woodbridge, and Yorkshire SAP and overlapping regional activity centers. A preliminary meeting was held with the PWC Public Schools SRTS Coordinator, Planning Office Long Range Planner, and staff from Transportation Planning Division to discuss criteria for selecting 12 schools for the TLC grant project. After deliberation, the following criteria was chosen:

1. Proximity to Proposed/Existing Density
2. Number of Students in Walkshed
3. School Support for Student Walking/Biking

The third criterion was chosen based on national SRTS research and feedback from the SRTS Coordinator that PWC Public Schools principals have considerable discretion in school walking/biking policies and can substantially encourage or hinder student walk/bike rates even when appropriate infrastructure is available.

Each school received a quantitative score for the criteria based on the following data and scoring process:

1. Proximity – A map of the schools for each area was generated and compared to SAP proposed land use and Regional Activity Center maps for the Gainesville/Route 29 and North Woodbridge areas (existing land use maps were used for the Yorkshire area as the SAP has not yet been initiated). Each school was assigned a qualitative score of “High”, “Medium”, or “Low” to reflect relative proximity to proposed or existing land use density. The schools were then assigned a numerical value for this criterion of one through three, with higher scores for higher proximity.
2. Walkshed – Data on the number of students within a 1-mile and 0.5-mile walkshed of each school was obtained from the PWC Public Schools Planning Division. Schools were ranked on density of students in walkshed relative to their respective



SAP; with higher consideration given to number of students in 0.5-mile walkshed. This consideration reflects the desire to make the highest impact with limited resources.

- Support – Schools were assigned one point for prior participation in SRTS initiatives; including Surveys, Walk to School Day and Bike to School Day. Eleven schools were also assigned one point each for selection by the SRTS Coordinator based on professional experience.

The top four highest ranking schools were selected for each SAP and mapped for further analysis. These schools along with their selection criterion rating are listed in **Table 1**.

Table 1: Selected Schools and Criterion Ranking

School	Proximity to Activity Center	Students in Walkshed (0.5 mile/1 mile)	School Support	Total Score
GAINESVILLE/RT 29 SMALL AREA				
Buckland Mills Elementary School	High (3)	179/411 (8)	Survey/WTSD (1)	12
Bristow Run Elementary School	Low (1)	271/433 (11)	Survey/WTSD (1) Coordinator Select (1)	14
Glenkirk Elementary School	High (3)	255/675 (10)	Survey/WTSD/BTSD (1)	14
Mullen Elementary School	Low (1)	527/751 (12)	Survey (1)	14
NORTH WOODBRIDGE				
Fred Lynn Middle School	High (3)	229/718 (7)	Coordinator Select (1)	11
Kilby Elementary School	High (3)	422/600 (8)	WTSD (1) Coordinator Select (1)	13
Marumscos Hills Elementary School	Low (1)	181/565 (4)	Survey/WTSD (1) Coordinator Select (1)	7
Potomac View Elementary School	Low (1)	225/425 (5)	Survey (1) Coordinator Select (1)	8
YORKSHIRE				
Sinclair Elementary School	High (3)	152/551 (7)	Survey (1) Coordinator Select (1)	12
Sudley Elementary School	Medium (2)	212/481 (9)	Survey/WTSD/BTSD (1) Coordinator Select (1)	13
West Gate Elementary School	Medium (2)	524/550 (11)	Survey (1) Coordinator Select (1)	15
Yorkshire Elementary School	Medium (2)	456/818 (10)	Survey/WTSD (1)	13



B. Analysis Area

Consistent with the project scope and subsequent project team kick-off meeting, the analysis area for each school was defined in consideration of several features. The analysis area was established by delineating a one-mile radius around each school and the school boundaries were then used to further refine the analysis area. In Prince William County, students that live within the one-mile walkshed of the school are not provided transportation services and must walk or bike to school. The pedestrian and bike routes were reviewed within the analysis area of each individual schools. For the analysis areas, major barriers to pedestrian and bike access such as rail lines or highways were noted as obstacles to providing safe, accessible routes to schools. Using GIS data, routes within the one-mile walkshed of each school were identified.

The methodology for the connectivity gap analysis and identification of priority routes is detailed in the sections below.

III. CONNECTIVITY GAP ANALYSIS

A. Sidewalk Connectivity Gaps

Readily available GIS data was evaluated to investigate the existing, planned, and missing sidewalks and bike routes within the analysis area of each school. Sidewalk connectivity gaps were flagged where sidewalks were not observed or identified by the county or others as planned on either side of a roadway. All sidewalk connectivity gaps identified fall within the one-mile walkshed to walk or bike to the school. These areas are described in **Table 2** through **4** and are shown in the mapping in **Attachment 2**. Students under the age of 12 are permitted to ride bikes on the sidewalks and there are no significant bike trails near the identified schools, so all gaps identified are sidewalk gaps. Note, most of the gaps identified within the Kilby Elementary School boundary were also identified within the school boundary for Fred Lynn Middle School.



Table 2: Sidewalk Connectivity Gaps - Gainesville/Rt 29 SAP

School	Gap	Description
Buckland Mills Elementary School	Old Carolina Rd	<ul style="list-style-type: none"> No sidewalk provided south of Somerset Crossing Dr to Carver Rd (800 LF)
	Carver Rd	<ul style="list-style-type: none"> No sidewalk provided between Old Carolina Rd and Lee Hwy (5,000 LF).
	Carver Rd Connection to School	<ul style="list-style-type: none"> No sidewalk or connection provided between Carver Rd and the School, though a worn path exists (160 LF)
	Lee Hwy	<ul style="list-style-type: none"> No sidewalk provided between Somerset Crossing Dr and Carver Rd (770 LF)
Bristow Run Elementary School	Flynn Ct	<ul style="list-style-type: none"> No sidewalk provided (600 LF)
	Linton Hall Rd	<ul style="list-style-type: none"> No sidewalk provided between Bourne Place and the northern extent of Amberleigh Station neighborhood (1,650 LF)
	Amberleigh Station Neighborhood	<ul style="list-style-type: none"> No sidewalk provided within a large portion of neighborhood – Sapphire Ridge Place, Diamond Hill Dr, Ruby Rise Place, Bourne Place, and Dennis Ct (5,020 LF)
	Rustic Way	<ul style="list-style-type: none"> No sidewalk provided along Mossy Rock Ct (500 LF) No sidewalk provided along Scottish Hunt Lane (160 LF)
	Kingsbrooke Neighborhood	<ul style="list-style-type: none"> No sidewalk along Hudson Place (660 LF) No sidewalk provided on east leg of Weathersfield Dr (1,890 LF)
Glenkirk Elementary School	Unnamed Ct	<ul style="list-style-type: none"> No sidewalk provided to connect with Bearhurst Dr (420 LF)
Mullen Elementary School	Bethlehem Rd/Juliet Ln connection to School	<ul style="list-style-type: none"> No connection from Juliet Ln, parallel to Bethlehem Rd (680 LF) Property fence separates school from these routes.



Table 3: Sidewalk Connectivity Gaps - North Woodbridge SAP

School	Gap	Description
Fred Lynn Middle School	Jefferson Davis Hwy (US 1)	<ul style="list-style-type: none"> No sidewalk provided southbound, between Wigglesworth Way and Prince William Pkwy (770 LF) No sidewalk provided northbound on approach to E Longview Dr (170 LF) No sidewalk provided southbound, between Prince William Pkwy and Marys Way (1,500 LF) No sidewalk provided northbound, north of Mount Pleasant Dr (970 LF)
	Bottner Ct	<ul style="list-style-type: none"> No sidewalk provided (250 LF)
	Nottaway Rd	<ul style="list-style-type: none"> No sidewalk provided (1,300 LF)
Kilby Elementary School	Millwood Dr	<ul style="list-style-type: none"> No sidewalk provided, Millwood Dr (2,400 LF) No sidewalk provided connecting to Horner Rd (150 LF)
	F St to Millwood Dr	<ul style="list-style-type: none"> No sidewalk or connection is currently provided along F St (840 LF) Additionally, there is potential to connect terminus of F St to Millwood Dr, across county owned land (220 LF)
	Bottner Ct	<ul style="list-style-type: none"> No sidewalk provided (250 LF)
	Nottaway Rd	<ul style="list-style-type: none"> No sidewalk provided (1,300 LF)
Marumsc Hills Elementary School	<i>NONE</i>	<ul style="list-style-type: none"> <i>NONE</i>
Potomac View Elementary School	Ponderosa Ct	<ul style="list-style-type: none"> No connection (worn path) from the north terminus to school (240 LF)
	Colchester Rd	<ul style="list-style-type: none"> No sidewalks provided (2,200 LF)
	Pratt St	<ul style="list-style-type: none"> No sidewalks provided (1,600 LF)
	Overlook Dr	<ul style="list-style-type: none"> No sidewalks provided (1,200 LF)
	Forest Ln	<ul style="list-style-type: none"> No sidewalks provided (1,900 LF) No connection from east terminus to school (310 LF)
	Woodside Dr	<ul style="list-style-type: none"> No sidewalks provided (1,900 LF)
	Sycamore St	<ul style="list-style-type: none"> No sidewalks provided (650 LF)



Table 4: Sidewalk Connectivity Gaps - Yorkshire SAP

School	Gap	Description
Sinclair Elementary School	Sudley Manor Rd	<ul style="list-style-type: none"> No sidewalks provided westbound approach to SR 234 Business, in front of Taco Bell (310 LF)
Sudley Elementary School	Croydon Place	<ul style="list-style-type: none"> No sidewalks provided (330 LF) Adjoining unnamed cul-de-sac (150 LF)
West Gate Elementary School	NONE	<ul style="list-style-type: none"> NONE
Yorkshire Elementary School	Bull Run Rd	<ul style="list-style-type: none"> No sidewalks provided (2,700 LF) to Rugby Rd
	Old Centreville Rd: from Yorkshire Ln to Spruce St	<ul style="list-style-type: none"> No sidewalks provided (1,800 LF)
	Old Centreville Rd: approaching Parkland St	<ul style="list-style-type: none"> No sidewalks provided southbound (100 LF)
	McLean St	<ul style="list-style-type: none"> No sidewalks provided (3,200 LF)
	Howard St	<ul style="list-style-type: none"> No sidewalks provided (1,600 LF)
	Aubrey Dr	<ul style="list-style-type: none"> No sidewalks provided (2,100 LF)
	Well St	<ul style="list-style-type: none"> No sidewalks provided (1,900 LF)
	Centreville Rd	<ul style="list-style-type: none"> No sidewalks provided (4,100 LF), south of Orchard Bridge Dr to south of Leland Rd
	Boundary Ave	<ul style="list-style-type: none"> No sidewalks provided (270 LF) east of Bull Run Rd
	Parkland St	<ul style="list-style-type: none"> No sidewalks provided (2,000 LF) Bull Run Rd to Old Centreville Rd
	Yorkshire Ln	<ul style="list-style-type: none"> No sidewalks provided (5,600 LF) from Bull Run Rd to Centreville Rd
	Rugby Rd	<ul style="list-style-type: none"> No sidewalks provided (5,600 LF) from Bull Run Rd to west of Centreville Rd
	Leland Rd	<ul style="list-style-type: none"> No sidewalks provided (1,400 LF) from Rugby Rd to Well St
Stokely Dr	<ul style="list-style-type: none"> No sidewalks provided (1,000 LF) 	
Spruce St	<ul style="list-style-type: none"> No sidewalks provided (1,700 LF) from McLean St to Well St 	

B. Crosswalk Observations

Virginia Department of Transportation's (VDOT) Traffic Engineering Division Memorandum IIM-TE-384 outlines *Unsignalized Marked Crosswalk Standards*; which includes standards for the installation of marked crosswalks, the use of standard and high-visibility crosswalk patterns, and the installation of other pedestrian crossing safety treatments. While these standards provide criteria for the installation of the specified facilities, they also allow for engineering judgement to determine if facilities may be desirable to help compensate for other factors at a specific location such as roadway



geometry, visual clutter in the surrounding environment, crash history, and/or traffic and pedestrian volume patterns.

Aerial imagery within the analysis area for each school was reviewed to identify school entrances with no defined crosswalk, as well as signalized or stop controlled intersections that had existing crosswalks that were not high-visibility crosswalks. High visibility crosswalks, those with parallel lines and perpendicular ladder design lines, improve the visibility of pedestrian crossings and are preferred over the traditional parallel line markings. Note, this effort did not include a site visit or field observations and measurements to determine the Americans with Disabilities Act (ADA) accessibility of crosswalks.

Observed crosswalks without high-visibility markings are summarized in **Table 5** through **7**. Additionally, the school entrances of Bristow Run and Yorkshire Elementary Schools were observed without crosswalks. Crosswalks without high-visibility markings and noted school entrances without crosswalks are highlighted on the mapping in **Attachment 2**.



Table 5: Crosswalk Observations – Gainesville/Rt 29 SAP

School	Intersection	Description of Crosswalks that are not High-Visibility
Buckland Mills Elementary School	School Entrance and Forkland Way at Wharfdale Place	<ul style="list-style-type: none"> • 3 stop-controlled
	Wharfdale Place at Prices Cove Place	<ul style="list-style-type: none"> • 2 stop-controlled
	Somerset Crossing Dr at Old Carolina Rd	<ul style="list-style-type: none"> • 1 stop-controlled
	Clarkton Ct and Lucknow St at Somerset Crossing Dr	<ul style="list-style-type: none"> • 2 stop-controlled • 2 not stop-controlled
	Forkland Way and Bladen Place at Somerset Crossing Dr	<ul style="list-style-type: none"> • 2 stop-controlled • 2 not stop-controlled
	Turning Grass Way at Somerset Crossing Dr	<ul style="list-style-type: none"> • 1 stop-controlled
	Prices Cove Place and Links Pond Circle at Somerset Crossing Dr	<ul style="list-style-type: none"> • 2 stop-controlled • 2 not stop-controlled
	McGraws Corner Dr at Somerset Crossing Dr	<ul style="list-style-type: none"> • 1 stop-controlled • 1 not stop-controlled
	Shopping Plaza Entrance at Somerset Crossing Dr	<ul style="list-style-type: none"> • 2 signal-controlled
	Somerset Crossing Dr at Lee Hwy	<ul style="list-style-type: none"> • 4 signal-controlled
Bristow Run Elementary School	Worthington Dr and Bourne Place at Linton Hall Rd	<ul style="list-style-type: none"> • 4 signal-controlled
	Scottish Hunt Ln at Linton Hall Rd	<ul style="list-style-type: none"> • 1 stop-controlled
	Worthington Dr (northside of intersection with Rustic Way)	<ul style="list-style-type: none"> • 1 not stop-controlled
	Braided Stream Dr and Lawrence Ln at Worthington Dr	<ul style="list-style-type: none"> • 2 stop-controlled • Community pool and rec facilities (open to residents) located off Braided Stream Dr
Glenkirk Elementary School	<i>NONE</i>	<ul style="list-style-type: none"> • <i>NONE</i>
Mullen Elementary School	School Entrances (north and south loop at Rodes Dr)	<ul style="list-style-type: none"> • 2 stop-controlled • 1 not stop-controlled
	School Parking and Rhodes Dr	<ul style="list-style-type: none"> • 2 stop-controlled • 2 not stop-controlled



Table 6: Crosswalk Observations – North Woodbridge SAP

School	Intersection	Description
Fred Lynn Middle School	West School Entrance at Prince William Pkwy	<ul style="list-style-type: none"> • 3 signal-controlled
	East School Entrance at Prince William Pkwy	<ul style="list-style-type: none"> • 1 stop-controlled • 1 not stop-controlled
	York and Summerland Dr at Prince William Pkwy	<ul style="list-style-type: none"> • 2 signal-controlled
	Breezy Ridge Way at Prince William Pkwy	<ul style="list-style-type: none"> • 1 stop-controlled
	W Longview Dr and Botts Ave at Prince William Pkwy	<ul style="list-style-type: none"> • 4 signal-controlled
	Lynn St at Prince William Pkwy	<ul style="list-style-type: none"> • 1 stop-controlled
	Prince William Pkwy at Jefferson Davis Hwy (US 1)	<ul style="list-style-type: none"> • 3 signal-controlled
	Marys Way and Mount Pleasant Dr at Jefferson Davis Hwy (US 1)	<ul style="list-style-type: none"> • 2 signal-controlled
Kilby Elementary School	<i>NONE</i>	<ul style="list-style-type: none"> • <i>NONE</i>
Marumscos Hills Elementary School	Parking Lot Entrances at Page St	<ul style="list-style-type: none"> • 2 not stop-controlled
	Grayson Rd at Franklin St	<ul style="list-style-type: none"> • 2 stop-controlled • 2 not stop-controlled
	Franklin St at W Longview Dr	<ul style="list-style-type: none"> • 4 stop-controlled
	Grayson Rd at W Longview Dr	<ul style="list-style-type: none"> • 2 stop-controlled • 2 not stop-controlled
	Mathews Dr at W Longview Dr	<ul style="list-style-type: none"> • 2 stop-controlled • 2 not stop-controlled
Potomac View Elementary School	Meridian Dr at Lamar Rd	<ul style="list-style-type: none"> • 2 stop-controlled • 2 not stop-controlled
	E Longview Dr at Lamar Rd	<ul style="list-style-type: none"> • 2 stop-controlled • 2 not stop-controlled
	E Longview Dr at Colchester Rd	<ul style="list-style-type: none"> • 4 stop-controlled



Table 7: Crosswalk Observations - Yorkshire SAP

School	Intersection	Description
Sinclair Elementary School	Sudley Manor Rd at Sudley Rd	<ul style="list-style-type: none"> • 2 signal-controlled
	Rosemary Dr and Broken Branch Ln at Sudley Rd	<ul style="list-style-type: none"> • 2 signal-controlled
	Williamson Blvd and Garner Rd at Sudley Manor Rd	<ul style="list-style-type: none"> • 3 signal-controlled
	Garner Dr at Lomond Dr	<ul style="list-style-type: none"> • 1 stop-controlled • 2 not stop-controlled
	Ashland Ave at Lomond Dr	<ul style="list-style-type: none"> • 2 stop-controlled • 2 not stop-controlled
	Stonewall Middle School and Urbanna Rd at Lomond Dr	<ul style="list-style-type: none"> • 4 stop-controlled
Sudley Elementary School	Dublin Dr at Copeland Dr	<ul style="list-style-type: none"> • 2 stop-controlled • 2 not stop-controlled
	Botsford Rd at Copeland Dr	<ul style="list-style-type: none"> • 1 stop-controlled • 2 not stop-controlled
	Copeland Dr at Sudley Manor Dr	<ul style="list-style-type: none"> • 2 stop-controlled • 2 not stop-controlled
	Dublin Dr at Sudley Manor Dr	<ul style="list-style-type: none"> • 2 stop-controlled • 2 not stop-controlled
West Gate Elementary School	Williamson Blvd at Portsmouth Rd	<ul style="list-style-type: none"> • 1 stop-controlled
	Urbanna Rd at Portsmouth Rd	<ul style="list-style-type: none"> • 4 stop-controlled
	Clifton St at Portsmouth Rd	<ul style="list-style-type: none"> • 4 stop-controlled
Yorkshire Elementary School	Somersworth Dr (north) at Old Centreville Rd	<ul style="list-style-type: none"> • 1 stop-controlled
	Somersworth Dr (south) at Old Centreville Rd	<ul style="list-style-type: none"> • 1 stop-controlled



IV. PRIORITY ROUTES

A. Methodology

With the intent to provide a quantitative identification of priority routes to guide future SRTS projects within the analysis areas; sidewalk connectivity gaps were evaluated against criteria for the selection of priority projects. These criteria prioritize sidewalk connectivity gaps for potential improvements to provide convenient and safe pedestrian and bike access for each school. Points were assigned for each criterion with the goal to identify improvements that may have the greatest benefit. As such, the criteria consider the proximity to the school, highest impact based on surrounding households, safety needs, right-of-way, and overall connectivity for each identified sidewalk gap.

Proximity to School

- 3 points – Gap that directly connects or borders the school property
- 2 points – Gap located within less than 0.5-mile walkshed
- 1 point – Gap located between 0.5 and 1-mile walkshed

High Impact

- Gaps were evaluated based on their ability to connect a high number of households to the school. Note, these designations are based on PWC Public School's data regarding the student distribution by school within -0.5 and 1-mile radii of schools as well as aerial images. Zoning designations were not reviewed as a part of this analysis.
 - 3 points – Gap located in high-density residential area including condos, apartments, and townhomes
 - 2 points – Gap located in medium density residential area, generally single-family homes on lots less than one-acre in size
 - 1 point – Gap located in low density residential area. Single-family homes located on larger lots.

Safety

- 3 or 0 points – Gaps located in an area with crash history with documented pedestrian involvement, based on VDOT crash mapping tool (VDOT 2013 - December, 2019 Virginia Crashes)
(<http://vdot.maps.arcgis.com/apps/webappviewer/index.html?id=59225a23ef694c15bb352d2de1432600>)
 - 3 points – Pedestrian involved crash in the area of the gap
 - 0 points – No pedestrian involved crash in the area of the gap



- Speed Limits:
 - 3 points – Gap along roads with a posted speed limit of 45 mph or greater
 - 2 points – Gap along roads with a posted speed limit of 35 mph
 - 1 point – Gap along roads with a posted speed limit of 25 mph

Right-of-Way

- 3 points – Gap located adjacent to or within existing public right-of-way
- 2 points – Gap located primarily adjacent to or within existing public right-of-way
- 0 points – Gap located completed outside of existing public right-of-way

Overall Connectivity

- 3 points – Gap located adjacent to parks or recreation fields
- 2 points – Gap located adjacent to commercial areas or identified by schools as potential projects or upgrades
- 1 point – Gap located adjacent to residential areas only

The total points accrued for each criterion were aggregated for each identified gap. Rankings do not include qualitative considerations. Gaps with points equal to or greater than 10 were highlighted as priority routes (**Table 8** and **Attachment 2**).



B. Analysis

The analysis of each connectivity gap against the priority route criteria described above is presented in **Tables 8** through **10**. Each of the gaps that met the priority route criteria are highlighted as such in **Attachment 2**.

Table 8: Priority Criteria Analysis – Gainesville/Rt 29 SAP

School	Gap	Proximity to School	High Impact	Safety		Right-of-Way	Overall Connectivity	TOTAL SCORE
				Ped Inv Crash History	Speed Limit			
Buckland Mills Elementary School	Old Carolina Rd	1	1	0	2	3	1	8
	Carver Rd	3	1	0	2	3	1	10
	Carver Rd Connection to School	3	1	0	1	3	2	10
	Lee Hwy	1	1	0	3	3	1	9
Bristow Run Elementary School	Flynn Ct	2	2	0	1	3	1	9
	Linton Hall Rd	2	2	0	3	3	1	11
	Amberleigh Station	2	2	0	1	3	1	9
	Rustic Way	2	2	0	1	3	1	9
	Kingsbrooke	1	2	0	1	3	1	8
Glenkirk Elementary School	Unnamed Ct	2	2	0	1	3	1	9
Mullen Elementary School	Bethlehem Rd/Juliet Ln Connection to School	3	3	0	2	2	2	11



Table 9: Priority Criteria Analysis – North Woodbridge SAP

School	Gap	Proximity to School	High Impact	Safety		Right-of-Way	Overall Connectivity	TOTAL SCORE
				Ped Inv Crash History	Speed Limit			
Fred Lynn Middle School	Jefferson Davis Hwy (US 1)	2	1	3	2	3	2	13
	Bottner Ct	1	2	0	1	3	1	8
	Nottaway Rd	1	1	0	2	3	1	8
Kilby Elementary School	Millwood Dr	2	2	3	1	3	1	12
	F St Extension to Millwood Dr	1	2	0	1	3	1	8
	Bottner Ct	2	2	0	1	3	1	9
	Nottaway Rd	2	1	0	2	3	1	9
Marumscos Hills Elementary School	<i>NONE</i>	-	-	-	-	-	-	-
Potomac View Elementary School	Ponderosa Ct	3	3	0	1	2	2	11
	Colchester Rd	1	2	0	1	3	1	8
	Pratt St	1	2	0	1	3	1	8
	Overlook Dr	1	2	0	1	3	1	8
	Forest Ln	3	2	0	1	2	2	10
	Woodside Dr	1	2	0	1	3	1	8
	Sycamore St	1	2	0	1	3	1	8



Table 10: Priority Criteria Analysis – Yorkshire SAP

School	Gap	Proximity to School	High Impact	Safety		Right-of-Way	Overall Connectivity	TOTAL SCORE
				Ped Inv Crash History	Speed Limit			
Sinclair Elementary School	Sudley Manor Rd	2	1	0	2	3	2	10
Sudley Elementary School	Croydon Place	1	2	0	1	3	1	8
West Gate Elementary School	<i>NONE</i>	-	-	-	-	-	-	-
Yorkshire Elementary School	Bull Run Rd	1	2	0	1	3	1	8
	Old Centreville Rd: Yorkshire Ln to Spruce St	2	2	3	1	3	3	14
	Old Centreville Rd: approaching Parkland St	2	3	0	1	3	1	10
	McLean St	2	2	0	1	3	1	9
	Howard St	2	2	0	1	3	1	9
	Aubrey St	2	2	0	1	3	1	9
	Well St	1	2	0	1	3	1	8
	Centreville Rd	1	2	3	3	1	2	12
	Boundary Ave	1	2	0	1	3	1	8
	Parkland St	2	3	3	1	3	1	13
	Yorkshire Ln	3	2	3	1	3	2	14
	Rugby Rd	2	2	0	1	3	2	10
	Leland Rd	2	2	3	1	3	2	13
	Stokely Dr	2	2	0	1	3	1	9
	Spruce St	2	2	0	1	3	3	11



V. RECOMMENDATIONS

A summary of recommendations within each SAP is presented in the text that follows. In sum, sidewalks are recommended for construction along each of the priority routes. Per VDOT's sidewalk standards, sidewalks shall be designed in accordance with ADA requirements and VDOT's Location and Design Instructional Memoranda IIM-LD-55, Curb Ramps and Sidewalks (www.viriniadot.org/business/locdes/rd-ii-memoranda-index.asp). Sidewalks with curb/gutter should be placed three feet from the back of curb if possible. Sidewalks immediately adjacent to the curb/gutter should be eight feet in width instead of the five-foot standard, and sidewalks should be within the relevant agency's right-of-way. Cost estimates for the recommended sidewalks have been provided to inform funding needs. In cases, where curb and gutter must be constructed as part of the project, PWC DOT estimates the cost per linear foot of new sidewalk is approximately \$800.

As previously noted, VDOT outlines standards for the installation of marked crosswalks, the use of standard and high-visibility crosswalk patterns, and the installation of other pedestrian crossing safety treatments. However, VDOT standards allow for engineering judgement to determine if facilities may be desirable to help compensate for other factors at a specific location. As a result, detailed further analysis would be required at each observed crosswalk location to determine if improvements would be warranted. The estimated cost for improvements would be based on the location specific recommendations. PWC DOT should continue coordination with VDOT and PWC Public Schools to determine where further crosswalk analysis is warranted.

Safety, compliance with VDOT guidelines, and costs should be further evaluated in determining the feasibility of these recommendations. There are roadway widening projects in Eastern Prince William County that will include pedestrian and bike facilities and may overlap with the priority route recommendations included in this report.



A. Gainesville/Route 29 SAP

The **Buckland Mills Elementary School** is in a residential area primarily comprised of single-family homes. This school is primarily accessed by Forkland Way via Somerset Crossing Drive, a north/south roadway east of the school. Sidewalks and pedestrian paths have been included with the construction of neighborhoods in this area. Carver Road is a two-lane undivided roadway that curves around the western boundary of the elementary school. Per PWC staff, and as confirmed online by way of the Virginia Cultural Resource Information System Mapviewer (vcris.dhr.virginia.gov/vcris/Mapviewer/), this area is located within a designated historic district (DHR ID: 076-6010). Direct access between this road and school is not currently provided; therefore, pedestrians would have to walk the length of Carver Road and portions of either Old Carolina Road or Lee Highway to access the school via Somerset Crossing Drive. However, the connectivity gap analysis included the identification of an approximately 160 linear foot (LF) worn path that provides connectivity between Carver Road and Buckland Mills Elementary School. This priority analysis determined that both a direct connection between Carver Road and Buckland Mills Elementary School and sidewalk improvements along Carver Road would meet priority route criteria. The combination of these pedestrian enhancements would expand the school's walkshed to include Hopewells Landing, a residential development of single-family homes. Approximately 5,000 LF of sidewalk parallel to the existing Carver Road and a 160 LF connection to Buckland Mills Elementary School could be provided at an estimated cost of \$4,128,000.

Crosswalks at Buckland Mills Elementary School and multiple intersections with Somerset Crossing Drive were observed; however, these crosswalks are not high-visibility. PWC DOT should continue coordination with VDOT and PWC Public Schools to determine where further crosswalk analysis is warranted.

Bristow Run Elementary School is off Worthington Drive, a neighborhood route that intersects Linton Hall Road. This residential area is primarily comprised of single-family homes. Sidewalks and pedestrian paths are located along many, but not all, of the connecting neighborhood roadways in this area. The 1,650 LF sidewalk gap along Linton



Hall Road, a four-lane median-divided state route that extends roughly north/south northeast of this elementary school, was identified as a priority route. However, this gap was flagged with the assumption that there is a need for a pedestrian connection between the terminus of Sapphire Ridge Place and Linton Hall Road. This connection could increase pedestrian accessibility within the Amberleigh Station neighborhood at an estimated cost of \$1,320,000 to provide 1,650 LF of sidewalk parallel to the existing roadway.

Multiple crosswalks at Worthington Drive were observed that are not high-visibility. Additionally, there are no marked crosswalks at the Bristow Run Elementary School entrance. PWC DOT should continue coordination with VDOT and PWC Public Schools to determine where further crosswalk analysis is warranted.

Glenkirk Elementary School is in a residential area primarily comprised of single-family homes, north of Rollins Ford Road. Sidewalks and pedestrian paths are located along the majority of the connecting neighborhood roadways in this area. Only one sidewalk gap was identified in this area. It did not meet criteria to be considered a priority route.

Additionally, all observed crosswalks near this school are high-visibility so crosswalk improvements are not needed. No additional sidewalks or further study is recommended, per this analysis.

Mullen Elementary School is in a residential area primarily comprised of townhomes and condominiums. Sidewalks and pedestrian paths are located along the majority of the connecting neighborhood roadways in this area. However, Bethlehem Road is a two-lane undivided roadway that curves around the western boundary of this elementary school. Direct access between this road and the school is currently prohibited by a fence installed on the school property line. Bethlehem Road also abuts a condominium development accessed via Juliet Lane. This priority criteria analysis assumed that a direct connection between Juliet Lane, Bethlehem Road and Mullen Elementary School could be provided if approved by the school and county. This direct connection would expand the school's walkshed to include single-family residences located on Bethlehem Road while also enhancing access between the Juliet Lane condominium community and Mullen



Elementary School. Per input from the PWC team, this direct connection to the school would bring a high value to the surrounding area. This route meets the criteria to be defined as a priority route. The cost to provide 680 LF of sidewalk parallel to the existing roadway and intersecting the school property was estimated to be \$544,000.

Crosswalks at the entrance to Mullen Elementary School are not high-visibility. PWC DOT should continue coordination with VDOT and PWC Public Schools to determine where further crosswalk analysis is warranted.

B. North Woodbridge SAP

Fred Lynn Middle School is on Prince William Parkway, a four-lane median-separated state route that was identified as in need of critical pedestrian safety improvements in VDOT's PSAP. This school serves students from a variety of surrounding residential developments including single-family homes, townhomes, condominiums, and mobile homes. Sidewalks and pedestrian paths are located along the majority of the connecting neighborhood roadways in this area. However, Jefferson Davis Highway (US 1), which intersects Prince William Parkway southeast of the school has multiple gaps in its sidewalk connectivity, totaling 3,410 LF. Jefferson Davis Highway was identified as in need of critical pedestrian safety improvements in VDOT's PSAP. Multiple pedestrian involved crashes have been recorded, including seven between Wigglesworth Way and at the intersection with Prince William Parkway and two north of Marys Way. Five-foot wide sidewalks and a ten-foot wide trail, closing the gap identified on Jefferson Davis Highway are being constructed as part of the Route 1 Widening project, currently underway. Therefore, no construction cost estimate has been provided for this improvement.

Multiple intersection crosswalks within the Fred Lynn Middle School analysis area do not have high-visibility markings. Seven of these crosswalks were noted along Prince William Parkway. PWC DOT should continue coordination with VDOT and PWC Public Schools to determine where further crosswalk analysis is warranted.



Kilby Elementary School is on Horner Road a two-lane residential connector extending roughly east/west. Residential development within the analysis area for this school spans a range of development densities, including single-family homes, townhomes, and condominiums. Four sidewalk connectivity gaps were identified within this analysis area. However only one of these, Millwood Drive meets criteria to be defined as a priority route. Both ends of this loop road connect with Horner Road, the west intersection at which was documented a vehicle crash involving a pedestrian. An estimated \$2,072,000 would provide 2,590 LF of sidewalk parallel to the existing Millwood Drive.

All crosswalks in this area were observed to have high-visibility markings.

Marumsc Hills Elementary School is in a residential area primarily comprised of single-family homes, east of I-95. Sidewalks and pedestrian paths are located along the majority of the connecting neighborhood roadways in this area. No sidewalk gaps were identified in this analysis area.

Crosswalks near this school, including the Secondary Parking Lot Entrance at Page Street are not high visibility. PWC DOT should continue coordination with VDOT and PWC Public Schools to determine where further crosswalk analysis is warranted.

Potomac View Elementary School is in a residential area primarily comprised of single-family residences and townhomes, east of Jefferson Davis Highway (US 1). Sidewalks and pedestrian paths are located along many of the connecting neighborhood roadways in the north portion of this analysis area. Sidewalk connectivity gaps were recorded west of and south of the school. Two of these gaps met priority route criteria, Ponderosa Court and Forest Lane. Ponderosa Court provides access within a townhome community immediately south of the school to neighborhood routes include Ironwood Street and Balsam Street. While no formal connection is currently provided between Potomac View Elementary School and this roadway, a 240 LF well-worn dirt path is evident in aerial images. The gap analysis also identified a gap along Forest Lane (1,900 LF). Further, access from the terminus of Forest Lane could be extended directly to Potomac View Elementary School (300 LF). Following existing pedestrian routes, this location is outside of one-mile walkshed of the school; however, filling this gap with a direct connection to



the Elementary School would place this gap within the 0.5-mile walkshed of the school. Additionally, this direct connection could enhance access for the connecting community, including adjacent routes. Per input from the PWC team, direct connections to the school via Ponderosa Court and Forest Lane would bring high value to the surrounding area. An estimated \$192,000 would provide 240 LF of pathway along the existing dirt path between Ponderosa Court and the school. Sidewalks that would extend 2,200 LF to connect Forest Lane to the school could be provided at an estimated cost of \$1,760,000.

Multiple crosswalks in the northern portion of the analysis area are not high-visibility. PWC DOT should continue coordination with VDOT and PWC Public Schools to determine where further crosswalk analysis is warranted.

C. Yorkshire SAP

Sinclair Elementary School is in a mixed commercial and residential area. Residential development within the analysis area for the school is a mix of single-family and town homes as well as condominiums and apartments. Sidewalks and pedestrian paths are located along the majority of the connecting neighborhood roadways in this area. Only one sidewalk gap was identified in this area, along the westbound Sudley Manor Drive approach to Route 234 Business. This gap met priority route criteria. Sidewalks could be provided at an estimated cost of \$248,000.

Crosswalks near this school are not high-visibility, including those at Sudley Manor Drive and Garner Drive as well as Lomond Drive and Garner Drive. PWC DOT should continue coordination with VDOT and PWC Public Schools to determine where further crosswalk analysis is warranted.

Sudley Elementary School is in a residential area comprised primarily of single-family homes situated on small lots. Sidewalks and pedestrian paths are located along the majority of the connecting neighborhood roadways in this area. One gap was identified at Croydon Place, a cul-de-sac, east of the school. It did not meet criteria to be considered a priority route.



Crosswalks near this school are not high-visibility, including those at the school entrance, Copeland Drive and Dublin Drive, and Sudley Manor Drive and Copeland as well as Dublin Drive. PWC DOT should continue coordination with VDOT and PWC Public Schools to determine where further crosswalk analysis is warranted.

West Gate Elementary School is in a residential area comprised of single-family homes situated on small lots and townhomes. Sidewalks and pedestrian paths are located along all the connecting neighborhood roadways in this area.

Crosswalks near this school are not high-visibility, including those at Portsmouth Road and Williamson Boulevard, Urbanna Road, and Clifton Street. PWC DOT should continue coordination with VDOT and PWC Public Schools to determine where further crosswalk analysis is warranted.

Yorkshire Elementary School is in a mixed residential area that includes a range of single-family, town and mobile homes as well as condominiums and apartments. While PWC has been working with the local community and schools to encourage walkability in this area, sidewalks and pedestrian paths are missing along many of the connecting neighborhood roadways in this area. Old Centreville and Centreville Roads provide the main north/south routes in this analysis area, while Yorkshire and Rugby Roads extend east and west. Sidewalk connectivity gaps that met priority criteria included: Old Centreville Road from Yorkshire Lane to Spruce Street (1,800 LF) and approaching Parkland Street (100 LF), Centreville Road (4,100 LF), Parkland Street (2,000), Yorkshire Lane (5,600 LF), Rugby Road (5,600 LF), Leland Road (1,400 LF), and Spruce Street (1,700 LF). Pedestrian involved crashes had been documented along: Old Centreville Road between Yorkshire Lane and Spruce Street, Centreville Road, Parkland Street, Yorkshire Lane and Leland Road. Addressing sidewalk gaps along Old Centreville Road from Yorkshire Lane to Spruce Street and along Spruce Street would provide enhanced access to Costello Park. The identification of several priority routes within the Yorkshire Elementary School's analysis area is consistent with the County's effort to encourage walkability in this area. The total length of sidewalk required to address priority route gaps is estimated to be 22,300 LF at an estimated cost of \$17,840,000 to would provide



sidewalk parallel to the existing roadways. See **Table 11** for details regarding the length of sidewalk and estimated construction costs. The cost is for construction and does not include costs for right-of-way, utility relocation, landscaping, or signage.

Table 11: Yorkshire Elementary School - Priority Route Gaps and Estimated Construction Cost

Gap	Estimated Length (LF)	Estimated Cost (\$)
Old Centreville Road: from Yorkshire Lane to Spruce Street	1,800	\$1,440,000
Old Centreville Road: approaching Parkland Street	100	\$80,000
Centreville Road	4,100	\$3,280,000
Parkland Street	2,000	\$1,600,000
Yorkshire Lane	5,600	\$4,480,000
Rugby Road	5,600	\$4,480,000
Leland Road	1,400	\$1,120,000
Spruce Street	1,700	\$1,360,000
TOTAL	22,300	\$17,840,000

While sidewalk sections are present on Old Centreville Road, north of Yorkshire Lane, there are four crosswalks at intersections of Old Centreville Road that are not high-visibility. Additionally, there is no marked crosswalk at the Yorkshire Elementary School entrance. PWC DOT should continue coordination with VDOT and PWC Public Schools to determine where further crosswalk analysis is warranted.



ATTACHMENT 1:
TLC SRTS Grant – School Selection Process

TLC Safe Routes to School Grant School Selection Process

All schools within the North Woodbridge, Gainesville/RTE 29 and Yorkshire Small Area Plans and adjacent Regional Activity Centers were identified. Non-Prince William County Public Schools were eliminated from consideration, resulting in 32 schools for analysis. A preliminary meeting was held with the Safe Routes to School Coordinator, Planning Department Long Range Planner and staff from Transportation Planning Division to discuss criteria for selecting 12 schools for the TLC grant project. After deliberation the following criteria was chosen:

1. Proximity to Proposed/Existing Density
2. Number of Students in Walkshed
3. School Support for Student Walking/Biking

The third criterion was chosen based on national Safe Routes to Schools research and feedback from the Safe Routes to School Coordinator that PWCS principals have considerable discretion in school walking/biking policies and can substantially encourage or hinder student walk/bike rates even when appropriate infrastructure is available.

Each school received a quantitative score for the criteria based on the following data and scoring process:

1. Proximity- A map of the schools for each area was generated and compared to Small Area Plan proposed land use and Regional Activity Center maps for the North Woodbridge and Gainesville/RTE 29 areas (existing land use maps were used for the Yorkshire area as the Small Area Plan has not yet been initiated). Each school was assigned a qualitative score of "High", "Medium" or "Low" to reflect relative proximity to proposed or existing land use density. The schools were then assigned a numerical value for this criterion of 1-3; with higher scores for higher proximity.
2. Walkshed- Data on the number of students within a 1-mile and 0.5-mile walkshed of each school was obtained from the School Planning Division. Schools were ranked on density of students in walkshed relative to their respective Small Area Plan; with higher consideration given to number of students in 0.5-mile walkshed. This consideration reflects the desire to make the highest impact with limited resources.
3. Support- Schools were assigned one point for prior participation in Safe Routes to Schools initiatives; including Surveys, Walk to School Day and Bike to School Day. Eleven schools were also assigned one point each for selection by the Safe Routes to Schools Coordinator based on professional experience.

The top four highest ranking schools were selected from each Small Area Plan and mapped for further analysis. This included determining if any proposed route improvements would be denied by VDOT or PWCS due to crossings over high volume or four lane roadways.

Based on this process, the following 12 schools were selected:

North Woodbridge

1. Fred Lynn Middle School
2. Kilby Elementary
3. Potomac View Elementary
4. Marumsco Hills Elementary

Gainesville/RTE 29

1. Buckland Mills Elementary
2. Glenkirk Elementary
3. Bristow Run Elementary
4. Mullen Elementary

Yorkshire

1. Sudley Elementary
2. Yorkshire Elementary
3. Sinclair Elementary
4. West Gate Elementary

TLC SRTS School Selection Matrix

North Woodbridge

School	Proximity to Activity Center	Students in Walkshed (0.5 mile/1 mile)	School Support	Total Score
Belmont ES	High (3)	59/136 (1)	Coordinator Select (1)	5
Fred Lynn MS	High (3)	229/718 (7)	Coordinator Select (1)	11
Kilby ES	High (3)	422/600 (8)	WTSD (1) Coordinator Select (1)	13
Marumsco Hills ES	Low (1)	181/565 (4)	Survey/WTSD (1) Coordinator Select (1)	7
Occoquan ES	Low (1)	245/602 (6)	(0)	7*
Potomac View ES	Low (1)	225/425 (5)	Survey (1) Coordinator Select (1)	8
Woodbridge MS	Medium (2)	57/219 (2)	(0)	4
Vaughn ES	Medium (2)	117/220 (3)	(0)	5

*Occoquan Elementary was not selected because student walkability is limited by school proximity to I-95 and Route 123.

Gainesville/Route 29

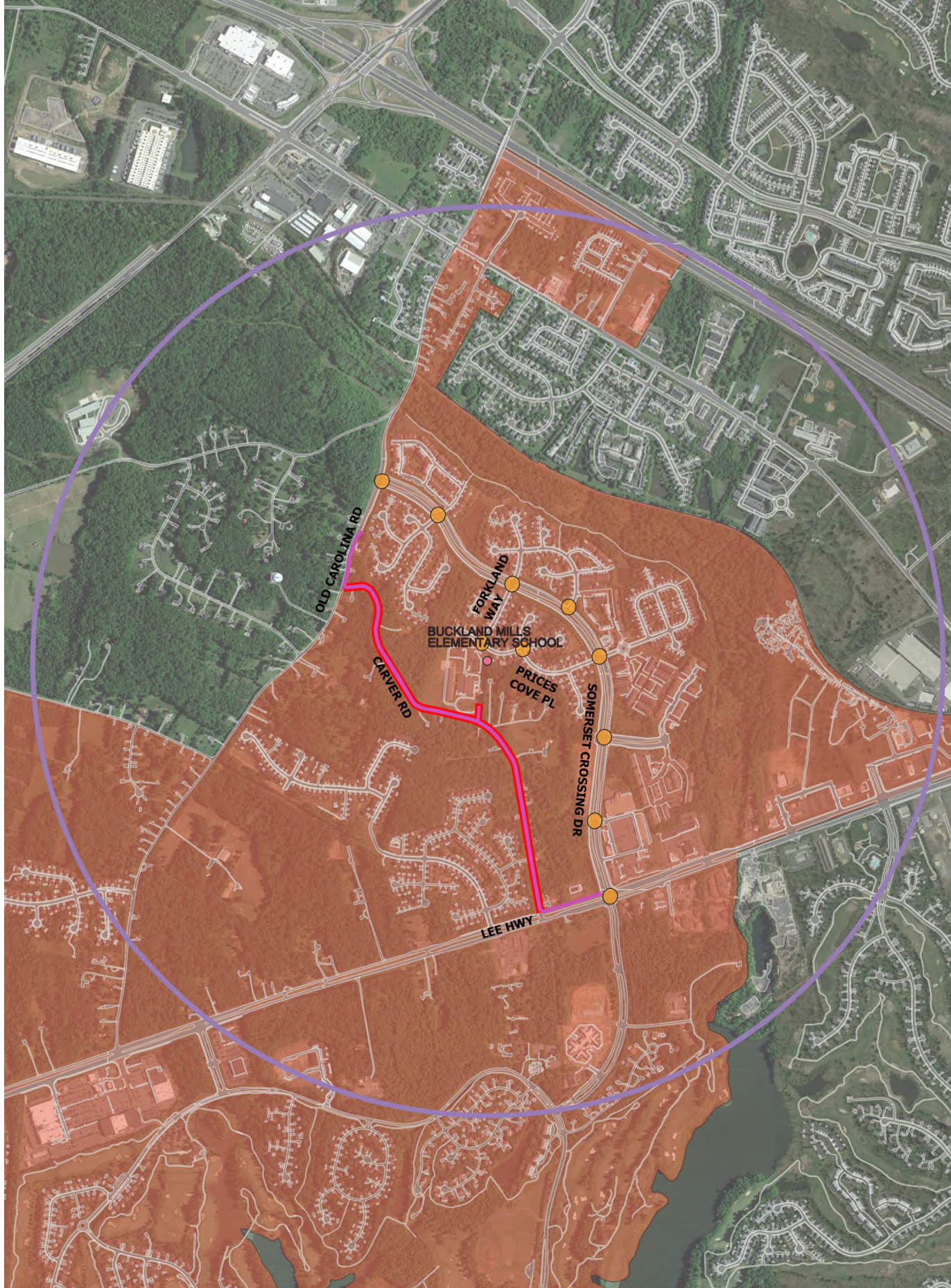
School	Proximity to Activity Center	Students in Walkshed (0.5 mile/1 mile)	School Support	Total Score
Bristow Run ES	Low (1)	271/433 (11)	Survey/WTSD (1) Coordinator Select (1)	14
Buckland Mills ES	High (3)	179/411 (8)	Survey/WTSD (1)	12
Bull Run MS	Medium (2)	56/169 (4)	BTSD (1)	7
Christ Yung ES	Medium (2)	62/251 (5)	Survey/WTSD (1)	8
Gainesville MS	High (3)	25/166 (2)	(0)	5
Glenkirk ES	High (3)	255/675 (10)	Survey/WTSD/BTSD (1)	14
Haymarket ES	Medium (2)	19/199 (1)	Survey (1)	4
Mountain View ES	Low (1)	46/137 (3)	Survey/WTSD (1) Coordinator Select (1)	6
Mullen ES	Low (1)	527/751 (12)	Survey (1)	14
Piney Branch ES	High (3)	117/252 (7)	Survey (1)	11
Tyler ES	High (3)	108/429 (6)	(0)	9
Victory ES	Low (1)	195/364 (9)	Survey (1)	11

Yorkshire







School	Proximity to Activity Center	Students in Walkshed (0.5 mile/1 mile)	School Support	Total Score
Ellis ES	Low (1)	85/216 (5)	(0)	6
Loch Lomand ES	Low (1)	158/395 (6)	Survey/WTSD (1) Coordinator Select (1)	9
Osbourne HS	High (3)	24/79 (2)	(0)	5
Parkside MS	High (3)	0/71 (1)	(0)	4
Pennington Traditional	Medium (2)	0/0 (0)	Survey (1)	3
Signal Hall ES	Low (1)	53/179 (4)	(0)	5
Sinclair ES	High (3)	152/551 (7)	Survey (1) Coordinator Select (1)	12
Stonewall MS	High (3)	166/633 (8)	(0)	11
Stonewall Jackson HS	Low (1)	53/120 (3)	(0)	4
Sudley ES	Medium (2)	212/481 (9)	Survey/WTSD/BTSD (1) Coordinator Select (1)	13
West Gate ES	Medium (2)	524/550 (11)	Survey (1) Coordinator Select (1)	15
Yorkshire ES	Medium (2)	456/818 (10)	Survey/WTSD (1)	13



ATTACHMENT 2:
Gap Analysis and Priority Routes Mapping



Legend

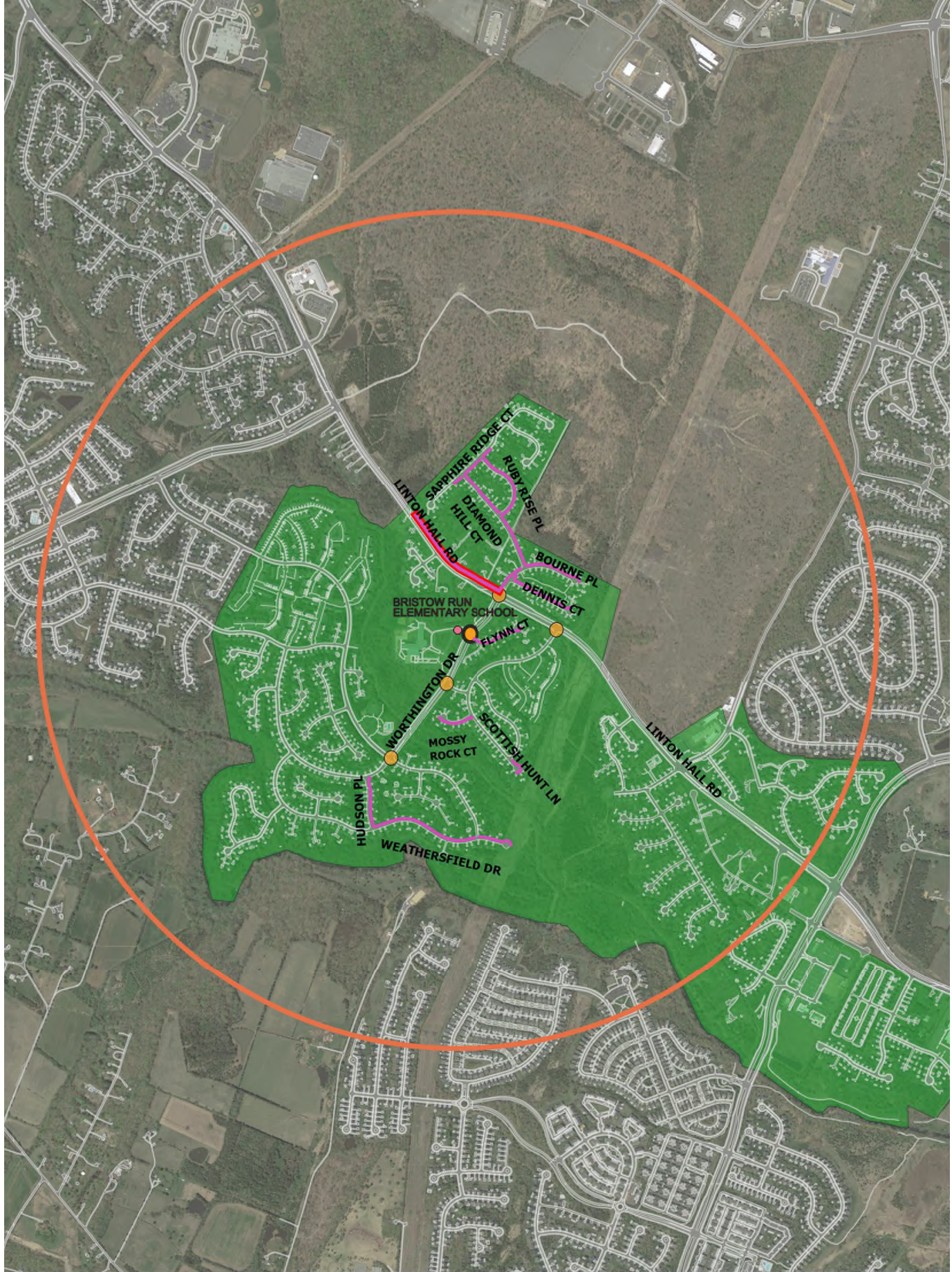
-  1-mile Radius of School
-  School Boundary
-  Existing Roads and Sidewalks
-  Connectivity Gaps
-  Priority Route
-  Intersection w/o High-Visibility Crosswalk

BUCKLAND MILLS ELEMENTARY
Gap Analysis and Priority Routes
Prince William County, Virginia - May 2020



NOT TO SCALE





Legend

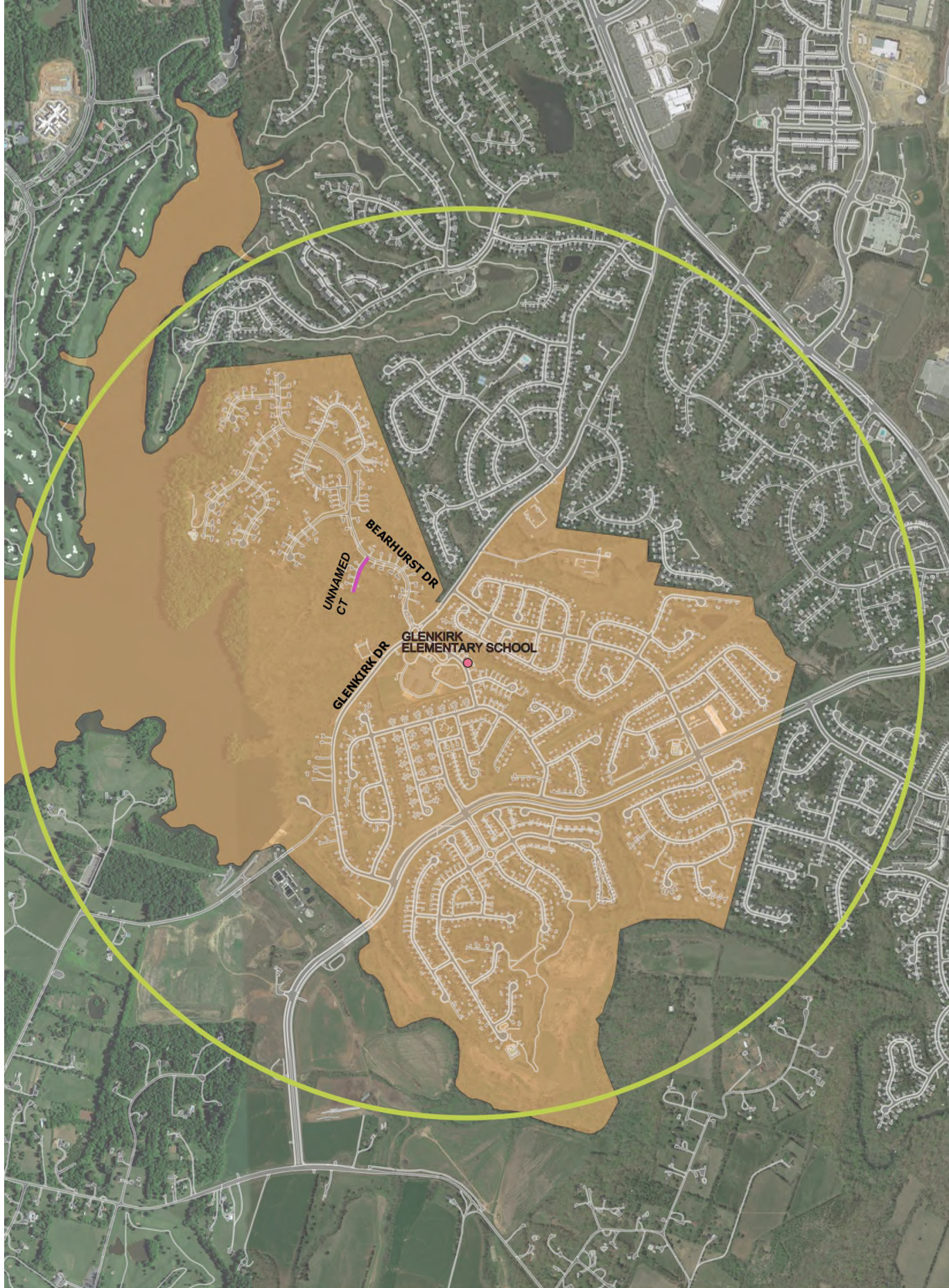
-  1-mile Radius of School
-  School Boundary
-  Existing Roads and Sidewalks
-  Connectivity Gaps
-  Priority Route
-  Intersection w/o High-Visibility Crosswalk
-  School Entrance w/o Marked Crosswalk

BRISTOW RUN ELEMENTARY
Gap Analysis and Priority Routes
 Prince William County, Virginia - May 2020









NOT TO SCALE





Legend

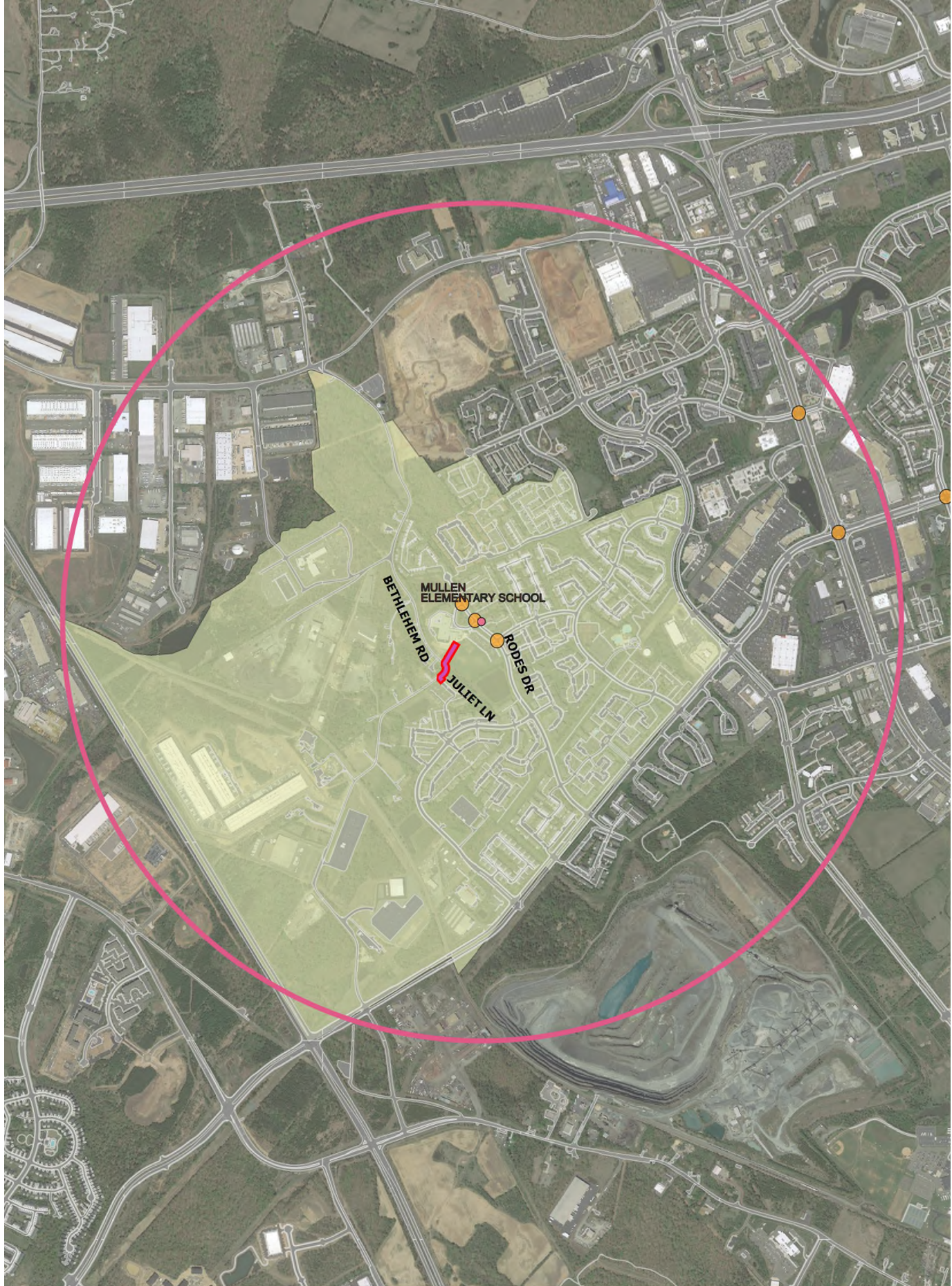
-  1-mile Radius of School
-  School Boundary
-  Existing Roads and Sidewalks
-  Connectivity Gaps
-  Priority Route
-  Intersection w/o High-Visibility Crosswalk

GLENKIRK ELEMENTARY
Gap Analysis and Priority Routes
Prince William County, Virginia - May 2020









NOT TO SCALE





Legend

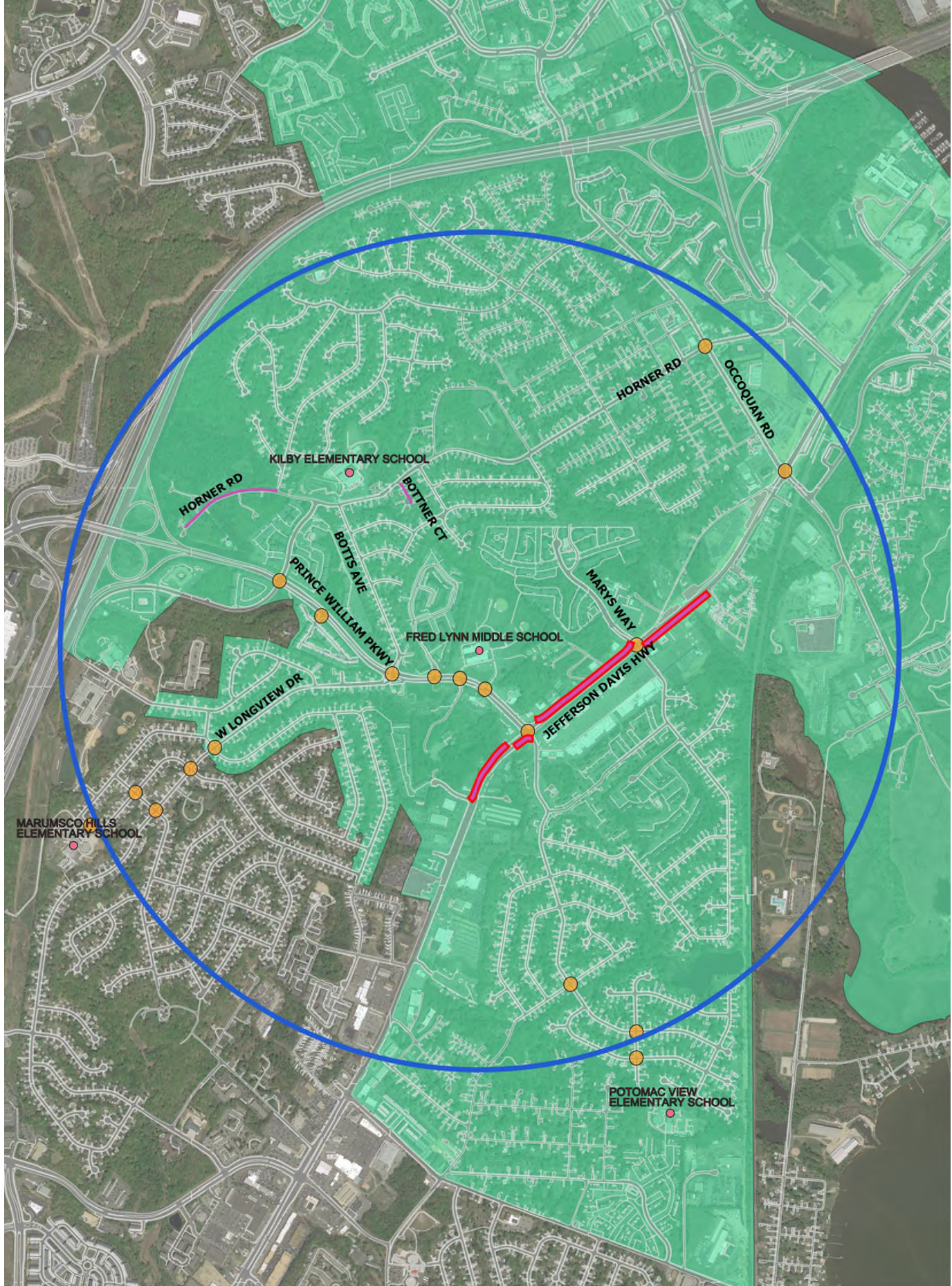
-  1-mile Radius of School
-  School Boundary
-  Existing Roads and Sidewalks
-  Connectivity Gaps
-  Priority Route
-  Intersection w/o High-Visibility Crosswalk

MULLEN ELEMENTARY
Gap Analysis and Priority Routes
Prince William County, Virginia - May 2020



NOT TO SCALE








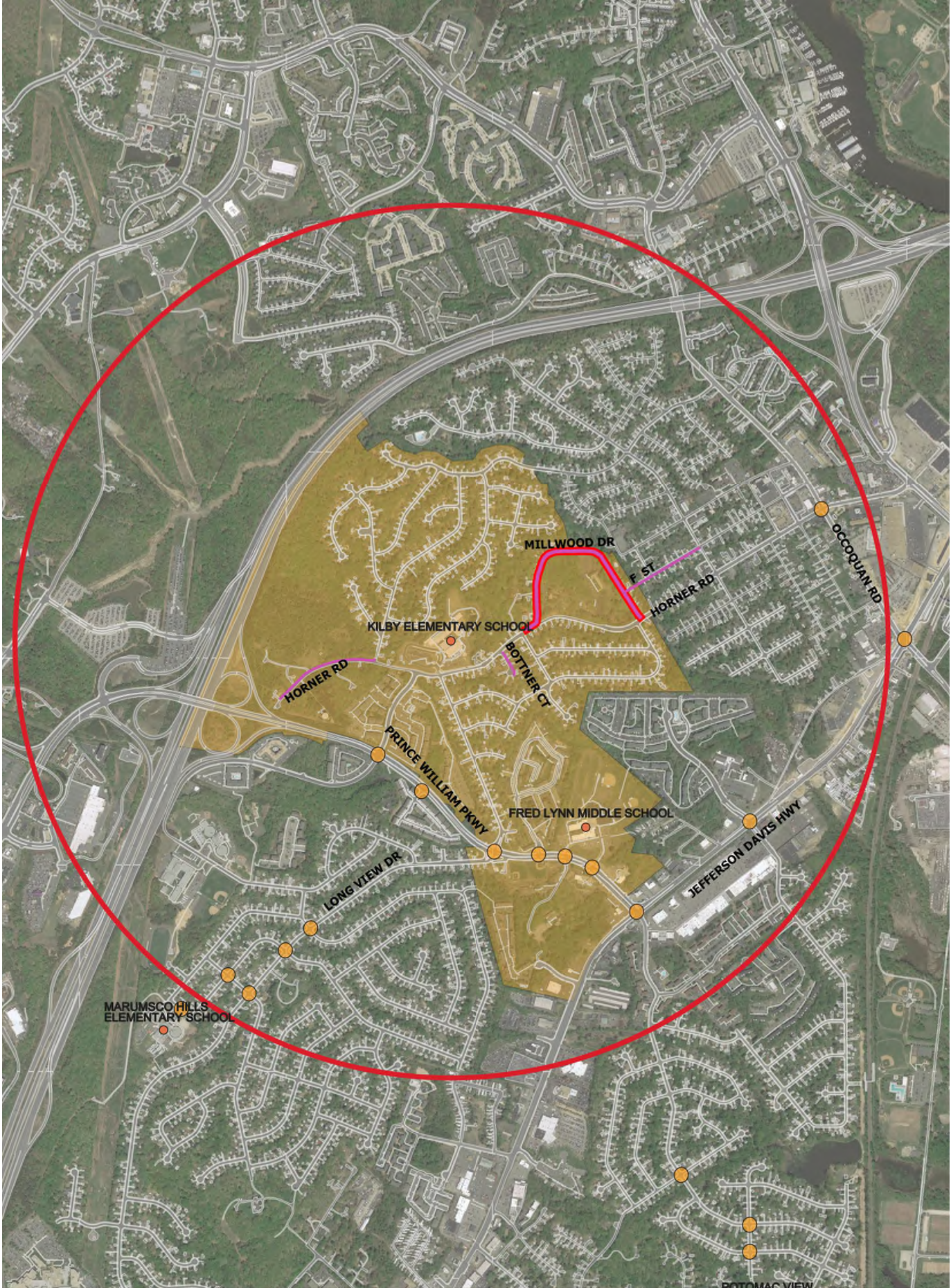
Legend

- 1-mile Radius of School
- School Boundary
- Existing Roads and Sidewalks
- Connectivity Gaps
- Priority Route
- Intersection w/o High-Visibility Crosswalk

FRED LYNN MIDDLE
Gap Analysis and Priority Routes
Prince William County, Virginia - May 2020

NOT TO SCALE

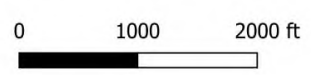






Legend






- 1-mile Radius of School
- School Boundary
- Existing Roads and Sidewalks
- Connectivity Gaps
- Priority Route
- Intersection w/o High-Visibility Crosswalk

KILBY ELEMENTARY
Gap Analysis and Priority Routes
 Prince William County, Virginia - May 2020





Legend

-  1-mile Radius of School
-  School Boundary
-  Existing Roads and Sidewalks
-  Connectivity Gaps
-  Priority Route
-  Intersection w/o High-Visibility Crosswalk

MARUMSCO HILLS ELEMENTARY
Gap Analysis and Priority Routes
Prince William County, Virginia - May 2020









NOT TO SCALE

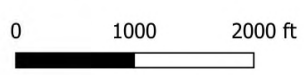




Legend







-  1-mile Radius of School
-  School Boundary
-  Existing Roads and Sidewalks
-  Connectivity Gaps
-  Priority Route
-  Intersection w/o High-Visibility Crosswalk

POTOMAC VIEW ELEMENTARY
Gap Analysis and Priority Routes
Prince William County, Virginia - May 2020





Legend

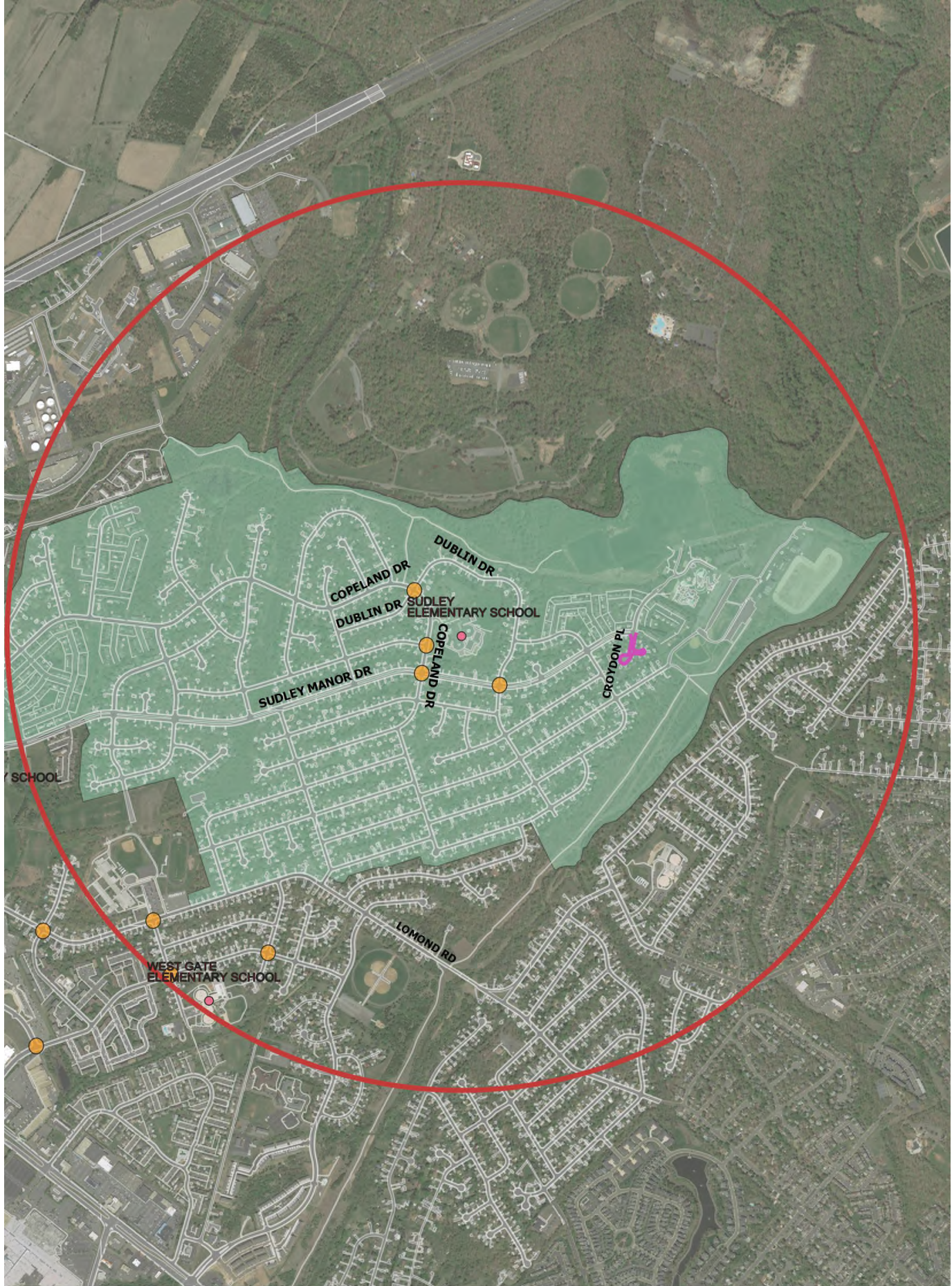
-  1-mile Radius of School
-  School Boundary
-  Existing Roads and Sidewalks
-  Connectivity Gaps
-  Priority Route
-  Intersection w/o High-Visibility Crosswalk

SINCLAIR ELEMENTARY
Gap Analysis and Priority Routes
Prince William County, Virginia - May 2020









NOT TO SCALE





Legend

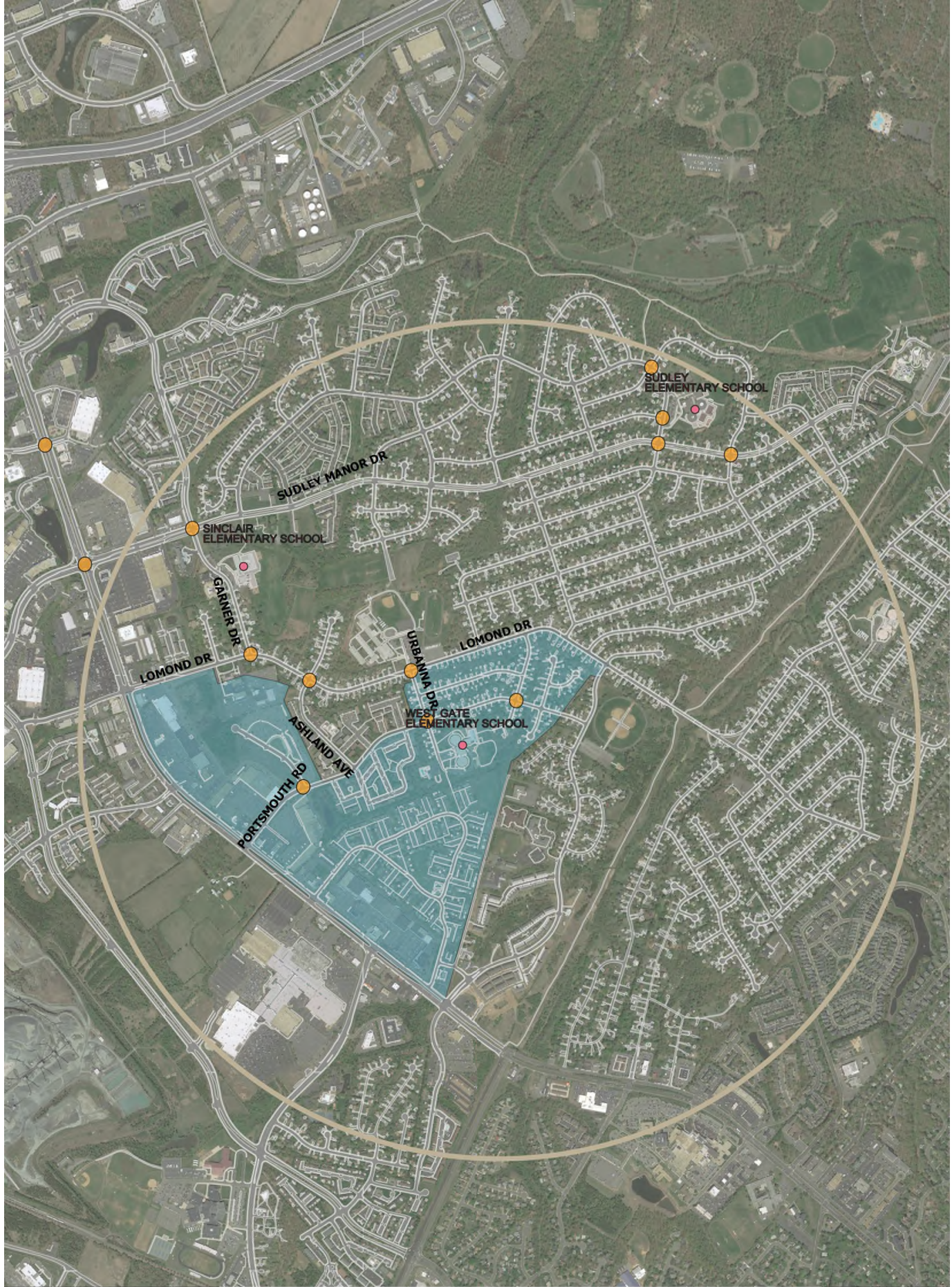
-  1-mile Radius of School
-  School Boundary
-  Existing Roads and Sidewalks
-  Connectivity Gaps
-  Priority Route
-  Intersection w/o High-Visibility Crosswalk

SUDLEY ELEMENTARY
Gap Analysis and Priority Routes
 Prince William County, Virginia - May 2020









NOT TO SCALE





Legend

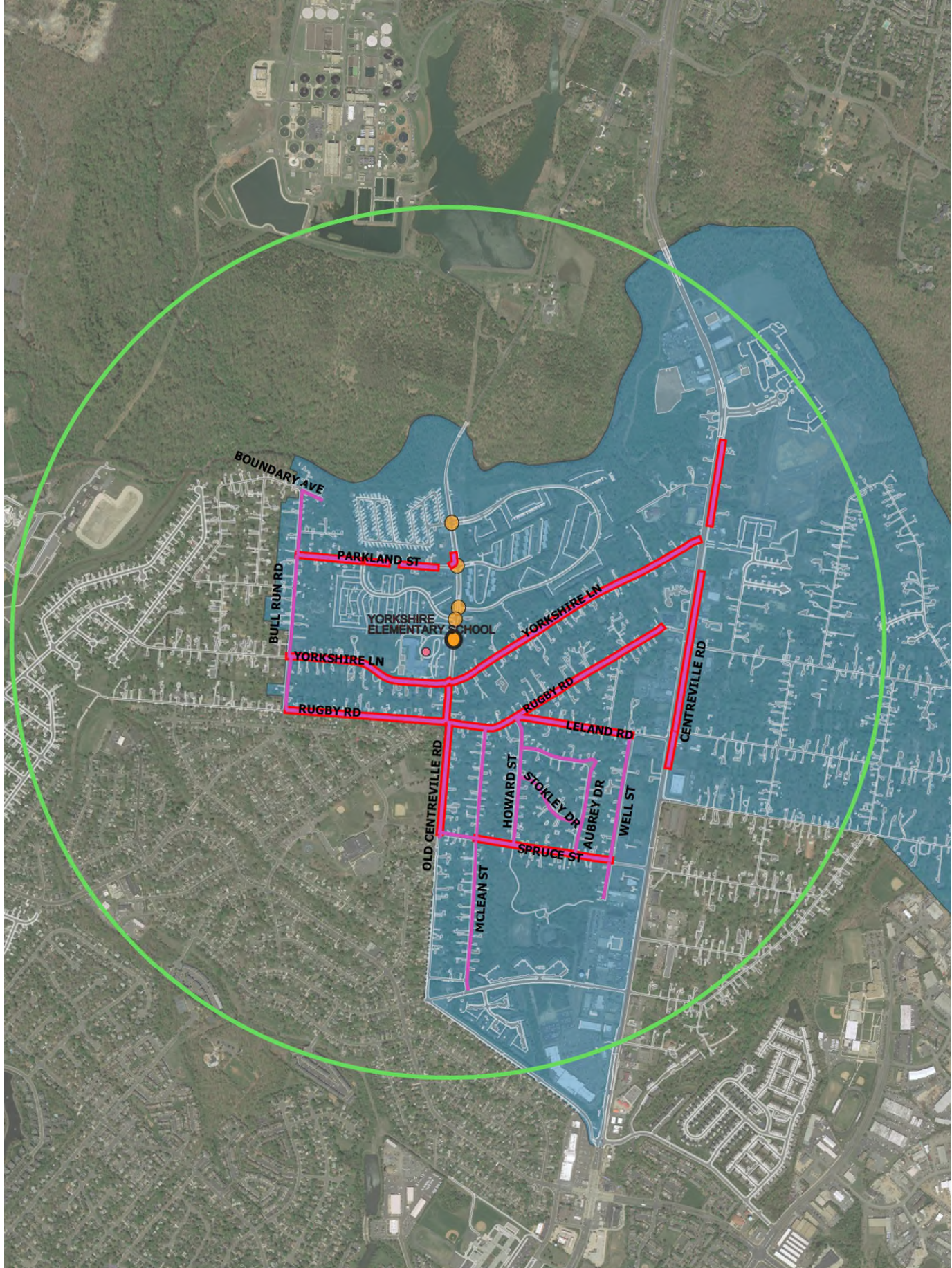
-  1-mile Radius of School
-  School Boundary
-  Existing Roads and Sidewalks
-  Connectivity Gaps
-  Priority Route
-  Intersection w/o High-Visibility Crosswalk

WEST GATE ELEMENTARY
Gap Analysis and Priority Routes
Prince William County, Virginia - May 2020



NOT TO SCALE





Legend

- 1-mile Radius of School
- School Boundary
- Existing Roads and Sidewalks
- Connectivity Gaps
- Priority Route
- Intersection w/o High-Visibility Crosswalk
- School Entrance w/o Marked Crosswalk

YORKSHIRE ELEMENTARY
Gap Analysis and Priority Routes
Prince William County, Virginia - May 2020



NOT TO SCALE

