

Prince William County Small Area Access Improvements Study



Client

Virginia Office of Intermodal Planning and
Investment (VDOT OIPI)

Facts

Period

2022

Project Country

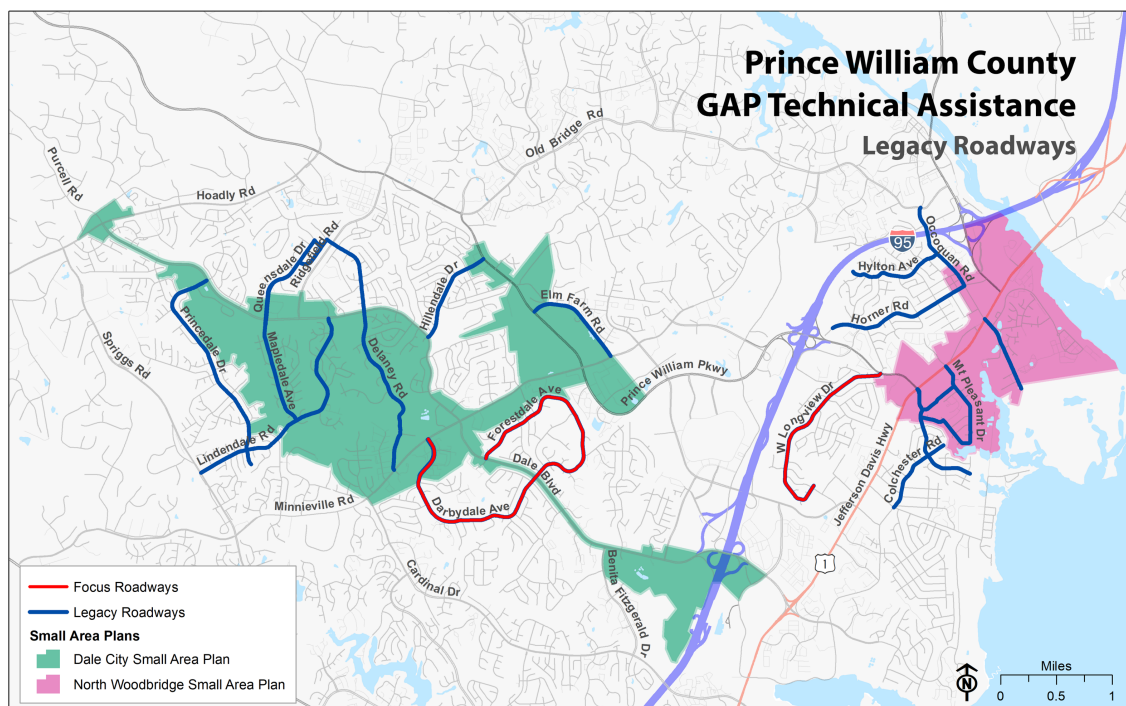
United States

As part of a consultant team lead by Michael Baker International, EBP supported the Virginia Office of Intermodal Planning and Investment (OIPI) and Prince William County, Virginia, in a Growth and Technical Assistance project, the Prince William County Small Area Access Improvements Study.

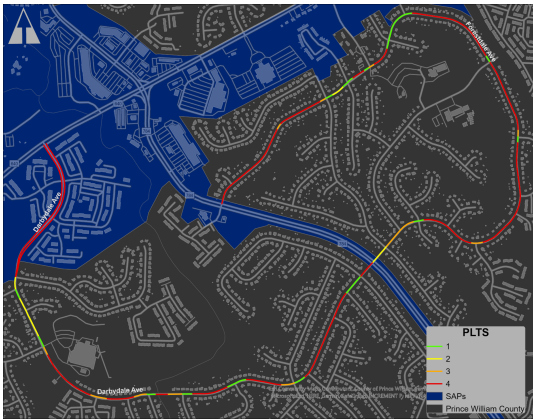
The purposes of the study were to identify safety and other persistent problems in local roadways; to identify infrastructure and operational improvements to address problems; and to develop a cost effectiveness evaluation tool to support investment decisions by the County to address these problems with greatest efficiency.

In the first phase of the study, to identify problems and countermeasures, EBP evaluated legacy roadways from the standpoint of pedestrian and bike safety and comfort. EBP developed data and graphics to rate different roadways segments on a 1-5 Pedestrian and Bicycle Level of Stress scale. In the second phase, EBP developed an Excel-platformed Cost Effectiveness Evaluation tool that can be applied to legacy roads. In the tool, roads are considered first for safety outcomes at both the intersection and segment levels.

Results are then rolled up to a corridor level and additional planning criteria such as livability and community character were introduced to complete a holistic evaluation. Prince William County transportation planning staff intend to use this framework and tool for future planning and community outreach programs.



Prince William County Legacy Roads Map



Darbydale Pedestrian Level of Stress Map

Need:	Sub-Need:	Countermeasures:	Location Type:	Potential Effectiveness Measures:	Data Needs:
Safety	Enhanced Crosswalks	Rectangular Rapid Flashing Beacon (RRFB)	Segment and Intersection	<ul style="list-style-type: none">Goal achievement per dollarFinancial feasibility of installationHealth and safety outcomes resulting from reduced crashes	<ul style="list-style-type: none">Capital cost for each countermeasureSegment/intersection scores from previous analyses (e.g., PTLTS and BLS analyses)FHWA Crash Modification Factors Clearinghouse dataHistoric crash dataCurrent legacy road crosswalk features
		Smart Lighting	Segment and Intersection		
		High-Visibility Crosswalk	Segment and Intersection		
		Raised Crosswalk	Segment and Intersection		

CEA Table

Contact Persons



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