

FREDERICK COUNTY COMPLETE AND GREEN STREETS PLAN

PLANNING COMMISSION

MAY 18, 2022



Project Team



Mark Mishler – Project Manager
Division of Planning & Permitting



Jennifer Ray, AICP – Consultant Project Manager
Amanda Havener, P.E. – Project Engineer



Meeting Agenda

- I. Project Scope and Goals**
- II. Context Considerations**
- III. Complete Streets**
- IV. Green Streets**
- V. Next Steps**
- VI. Questions**





PROJECT SCOPE AND GOALS



Project Scope



- Review existing documents and guidance
- Coordinate with Design Review Committee (DRC)
- Develop a Complete and Green Streets Plan
- Provide example projects for pedestrian, bicycle, shared-use and green street facilities



Project Goals

COMPLETE AND GREEN STREETS PLAN

Provide guidance for the planning and development of the transportation network in Frederick County

COMPLETE STREETS MANUAL

- Effectively accommodate users of all modes of travel of all ages and abilities
- Complete transportation network that is safe, equitable, and accessible for all users

GREEN STREETS MANUAL

- Enhance environmental sustainability
- Enhance user experience of the transportation network

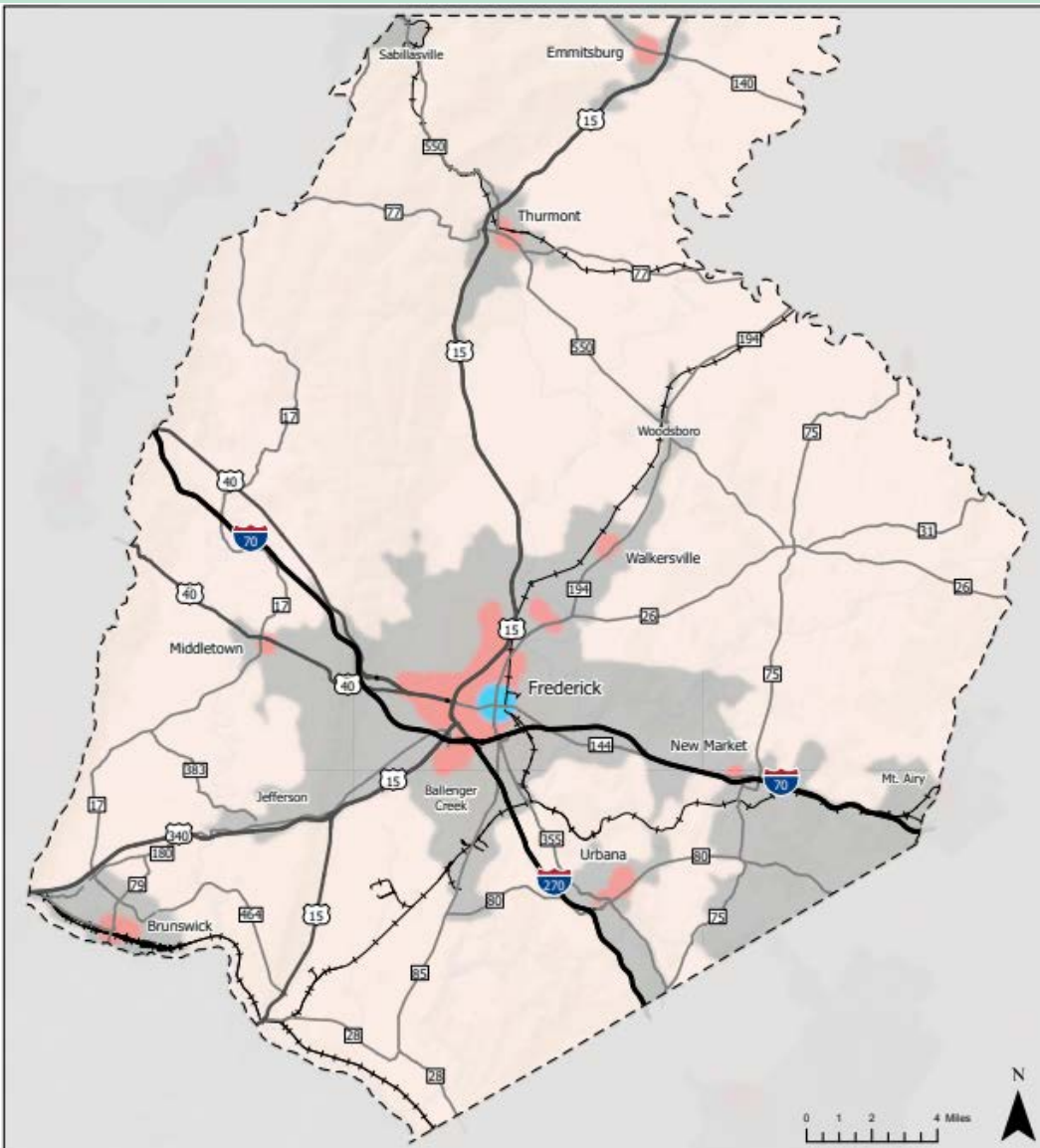




CONTEXT CONSIDERATIONS



MDOT SHA Context Zones



LEGEND

- County Boundary
- Railroads
- State Roadway
- US Route
- Interstate

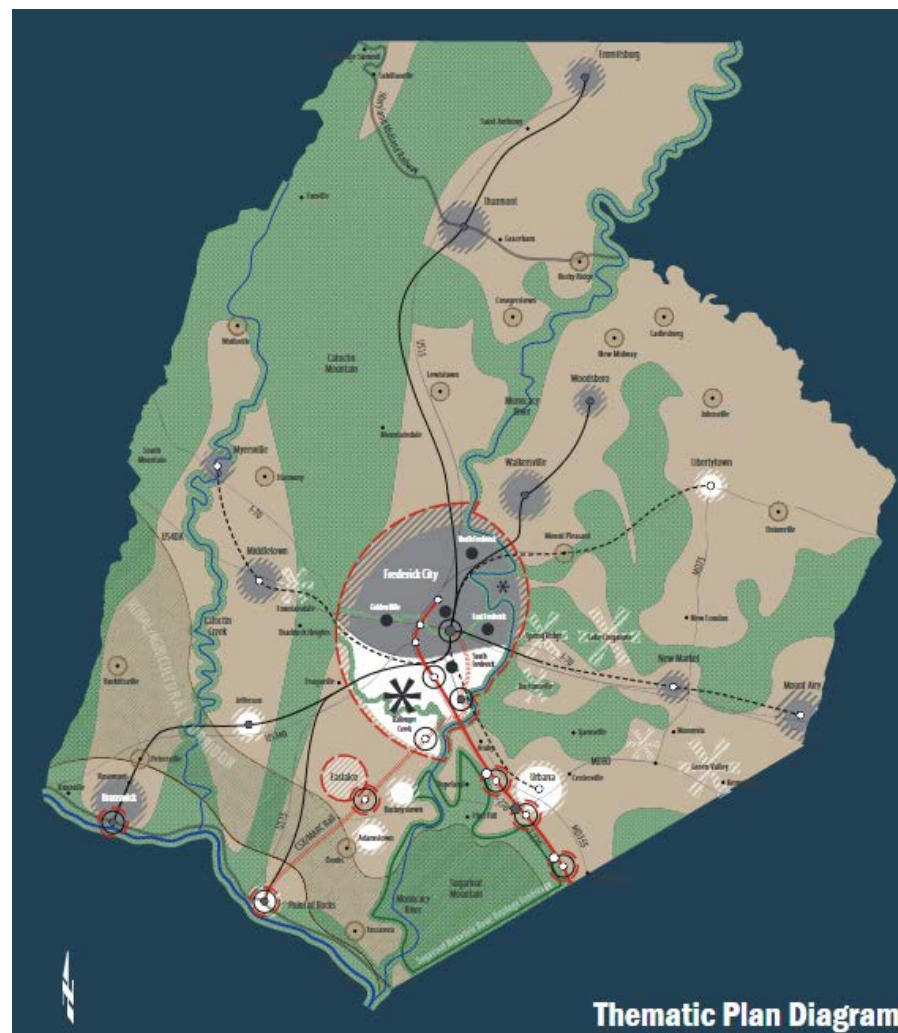
Context Zones

- Urban Center (Zone B)
- Suburban Activity Center / Traditional Town Center (Zone C)
- Suburban (Zone D)
- Rural (Zone E)



Context Considerations

- Safety
- Land Use
- Environmental Culture
- Community Livability
- Community Needs
- Future Growth Areas



Source: Frederick County LFMP





COMPLETE STREETS MANUAL



Complete Streets

- Ensure streets are safe for people of all ages and abilities
- Balance the needs of different modes
- Support local land use economies, cultures, and natural environments

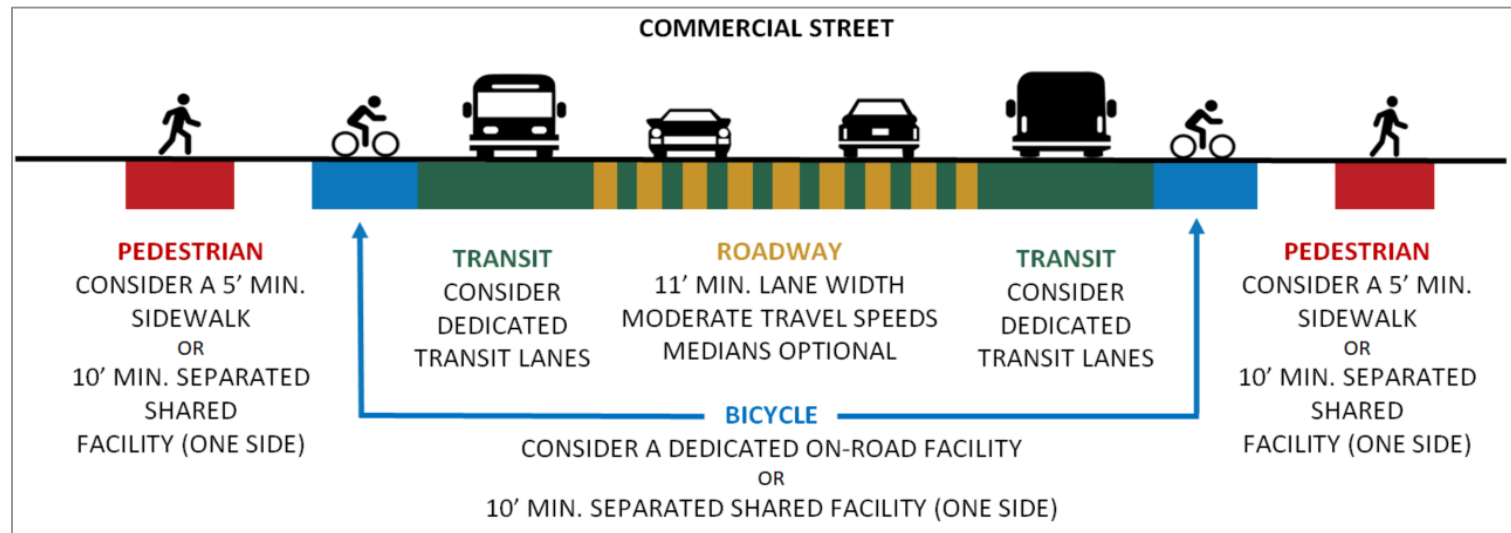


Complete Streets Manual

■ Roadway Types

Roadway Types	
Mobility	Access
Freeway / Expressway (F/E)	Commercial Street (CS)
Arterial Road (AR)	Connector (CN)
Collector (CL)	Neighborhood Street (NS)
Boulevard / Parkway (B/P)	Alley (A)

■ Roadway Typical Sections



Complete Streets Manual



DESIGN ELEMENT SELECTION MATRIX							
CONTEXT ZONE		Rural					
Roadway Type		AR	CL	B/P*	CS*	CN	NS
Roadway	Min. Lane Width	12'	11'	12'	11'	11'	10'
	Roundabouts	✓	✓	✓	✓	✓	X
	Medians	O	O	✓	O	O	O
	On-Street Parking	X	X	X	O	O	O
	Speed Humps / Cushions	X	X	X	X	O	O
Pedestrian	Lighting	X	X	O	O	O	O
	ADA-Compliant Sidewalks (5' min, 6' desired)	X	X	O	✓	✓	O
	Continental Crosswalks	X	X	✓	✓	✓	O
	ADA-Compliant Curb Ramps	X	X	O	✓	✓	O
	Raised Crosswalks	X	X	X	O	O	O
	Raised Intersections	X	X	X	O	X	O
	Pedestrian-Scale Lighting	X	X	O	O	X	O
	Curb Extensions / Bulb Outs	X	X	X	✓	O	O
	Shared Use Path	X	X	O	✓	O	O
	Off-Road Trails	X	O	O	O	O	O
	Pedestrian Wayfinding	X	X	X	X	X	X
	Shade Trees	X	X	O	O	O	O
Bicycle	HAWK Signal / RRFB	Optional at all High Conflict Crosswalks					
	Shared Streets (unmarked)	X	X	X	X	X	O
	Sharrows	X	X	X	X	X	✓
	Wide Bikeable Shoulders	O	O	X	X	X	X
	Striped On-Road Bike Lanes (5' min, 6' desired)	X	O	O	✓	O	X
	Buffered Bike Lanes	X	O	O	✓	O	X
	Separated Bike Lanes	X	O	O	O	O	X
	Protected Intersections	X	X	X	X	X	X
	Bicycle Signals, Bike Boxes, Turn-Queue Boxes	X	X	X	X	X	X
	Shared Use Path	X	X	O	✓	O	O
	Off-Road Trails	✓	O	O	O	O	O
	Bicycle Parking	X	X	X	O	X	X
Transit	Bicycle Wayfinding	X	O	O	X	O	X
	Transit Shelters	O	O	O	O	O	X
	Seating at Transit Stops	O	O	O	O	O	X
	Recycling / Trash Receptacles at Transit Stops	O	O	O	O	O	X
	Dedicated Transit Lanes / Corridors	X	X	X	X	X	X
	Transit Connectivity for Pedestrians / Bicycles	✓	✓	✓	✓	✓	✓
	Transit Wayfinding	✓	✓	✓	✓	✓	X
LEGEND: ✓ = Recommended O = Optional X = Not Recommended or Not Applicable * = Denotes Roadway Types Not Often Found in Context Zone							
NOTE: Frederick County will have the ultimate authority to determine the context zone and roadway type of a project on a case-by-case basis.							

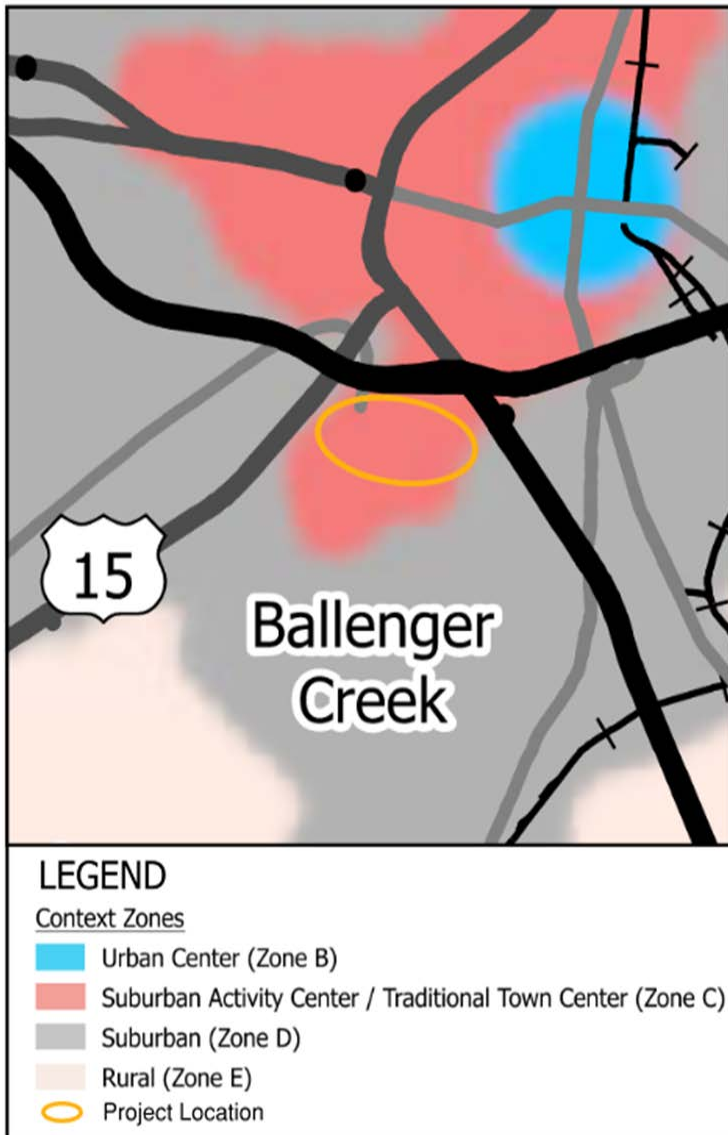
Design Element Recommendations

Organized by:

- Context Zone
- Roadway Type
- Transportation Mode



Complete Streets: Sample Project



Crestwood Boulevard and Corporate Drive

- ✓ 1a. Identify the project location.
- ✓ 1b. Determine the Context Zone.
Suburban Activity Center
- ✓ 1c. Determine the Roadway Type.
Boulevard / Parkway and
Connector Street



Complete Streets: Sample Project

Crestwood Boulevard and Corporate Drive

2. Identify design elements.

Recommended:



ADA-compliant sidewalks



Continental Crosswalks



Shared Use Path



Transit Amenities

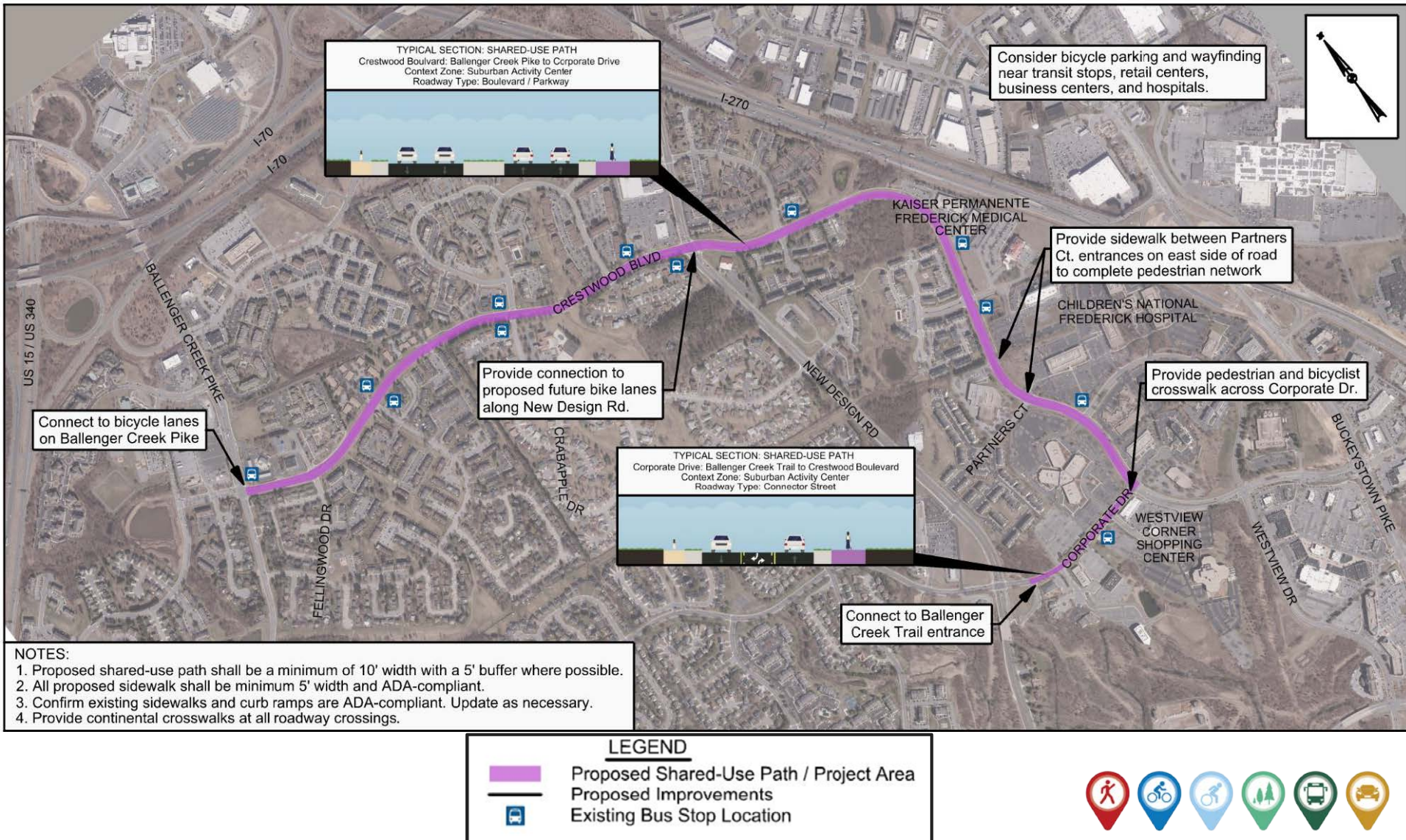


DESIGN ELEMENT SELECTION MATRIX							
CONTEXT ZONE		Suburban Activity Center					
Roadway Type		AR	CL	B/P	CS	CN	NS
Roadway	Min. Lane Width	12'	11'	12'	11'	11'	10'
	Roundabouts	O	O	✓	✓	✓	O
	Medians	✓	✓	✓	✓	O	O
	On-Street Parking	X	O	✓	✓	✓	✓
	Speed Humps / Cushions	X	X	X	X	O	O
Pedestrian	Lighting	O	✓	✓	✓	✓	✓
	ADA-Compliant Sidewalks (5' min, 6' desired)	O	O	✓	✓	✓	✓
	Continental Crosswalks	O	O	✓	✓	✓	✓
	ADA-Compliant Curb Ramps	O	O	✓	✓	✓	✓
	Raised Crosswalks	X	X	O	O	O	O
	Raised Intersections	X	X	X	O	O	X
	Pedestrian-Scale Lighting	O	✓	✓	✓	✓	O
	Curb Extensions / Bulb Outs	X	O	✓	✓	✓	O
	Shared Use Path	O	O	✓	✓	✓	O
	Off-Road Trails	O	O	O	O	O	O
	Pedestrian Wayfinding	O	O	✓	✓	✓	✓
	Shade Trees	X	O	✓	✓	✓	✓
	HAWK Signal / RRFB	Optional at all High Conflict Crosswalks					
Bicycle	Shared Streets (unmarked)	X	X	X	X	X	O
	Sharrows	X	X	X	O	O	✓
	Wide Bikeable Shoulders	O	O	O	X	X	X
	Striped On-Road Bike Lanes (5' min, 6' desired)	O	✓	✓	✓	✓	O
	Buffered Bike Lanes	O	✓	✓	✓	✓	O
	Separated Bike Lanes	X	O	O	O	O	X
	Protected Intersections	O	O	O	✓	X	X
	Bicycle Signals, Bike Boxes, Turn-Queue Boxes	O	O	O	✓	O	X
	Shared Use Path	O	O	✓	✓	✓	O
	Off-Road Trails	O	O	O	O	O	O
	Bicycle Parking	O	O	✓	✓	✓	O
Transit	Bicycle Wayfinding	O	✓	✓	✓	✓	O
	Transit Shelters	✓	✓	✓	✓	✓	X
	Seating at Transit Stops	✓	✓	✓	✓	✓	X
	Recycling / Trash Receptacles at Transit Stops	✓	✓	✓	✓	✓	X
	Dedicated Transit Lanes / Corridors	X	X	O	O	X	X
	Transit Connectivity for Pedestrians / Bicycles	✓	✓	✓	✓	✓	✓
	Transit Wayfinding	✓	✓	✓	✓	✓	O

LEGEND: ✓ = Recommended O = Optional X = Not Recommended or Not Applicable

* = Denotes Roadway Types Not Often Found in Context Zone

Complete Streets: Sample Project





GREEN STREETS MANUAL



The top and bottom illustrations show a top-down view of a city street intersection. The streets are paved with grey asphalt and feature white crosswalks and lane markings. Green infrastructure is integrated into the design, including green-painted bike lanes, green-painted pedestrian crosswalks, and green-painted medians. Trees and shrubs are planted along the sidewalks and in the medians. Pedestrians, cyclists, and vehicles are shown using the various modes of transportation. The background is a solid dark green color.



Green Streets

- Integrate Best Management Practices (BMPs) of Environmental Site Design into transportation corridors and projects
- Incorporate vegetation, soil, and engineered systems to control and treat stormwater runoff
- Enhance the user experience



Green Streets Manual

- Guidelines for BMP Selection
 - Natural Features
 - Design Features
 - Context Considerations
- Plant Selection
- Maintenance Requirements

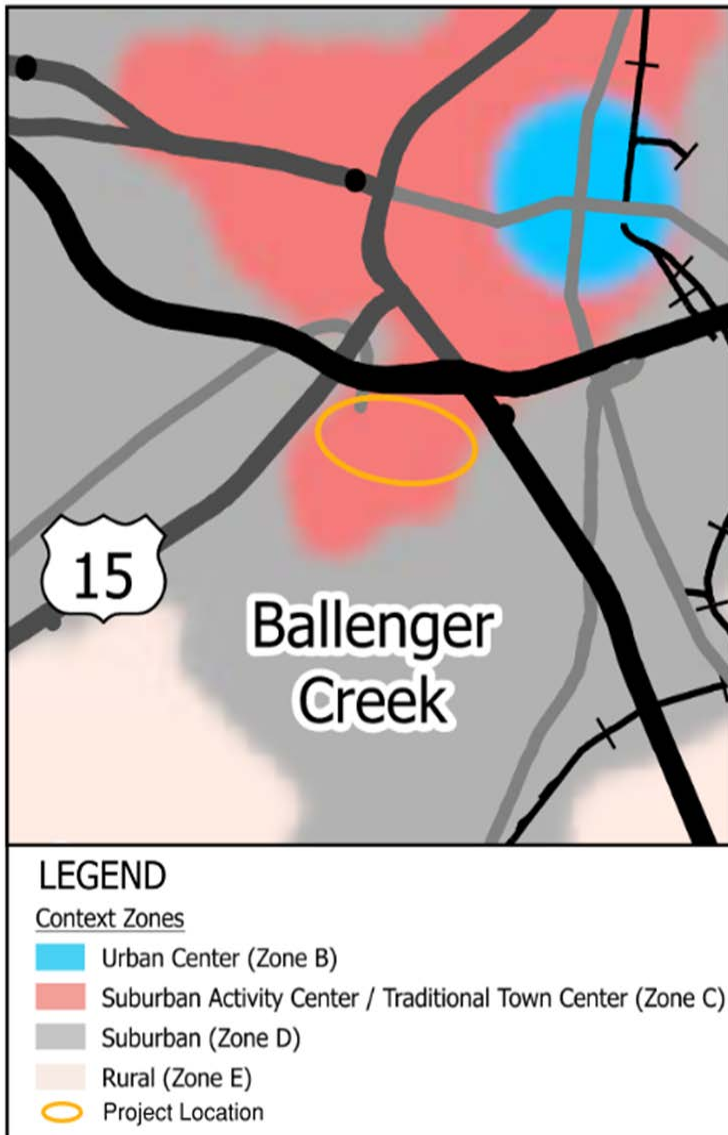
Landscape Infiltration



Reinforced Turf



Green Streets: Sample Project



Crestwood Boulevard and Corporate Drive



1. Identify natural and design features within project location.

Watershed	Karst Areas
Drainage Area	Slopes
Wetlands	Streams
Utilities	Drainage System



2. Review BMP Selection Matrix for appropriate Context Zone.

Suburban Activity Center



Green Streets: Sample Project

Crestwood Boulevard and Corporate Drive



3. Identify green infrastructure elements for consideration.

Crestwood Boulevard

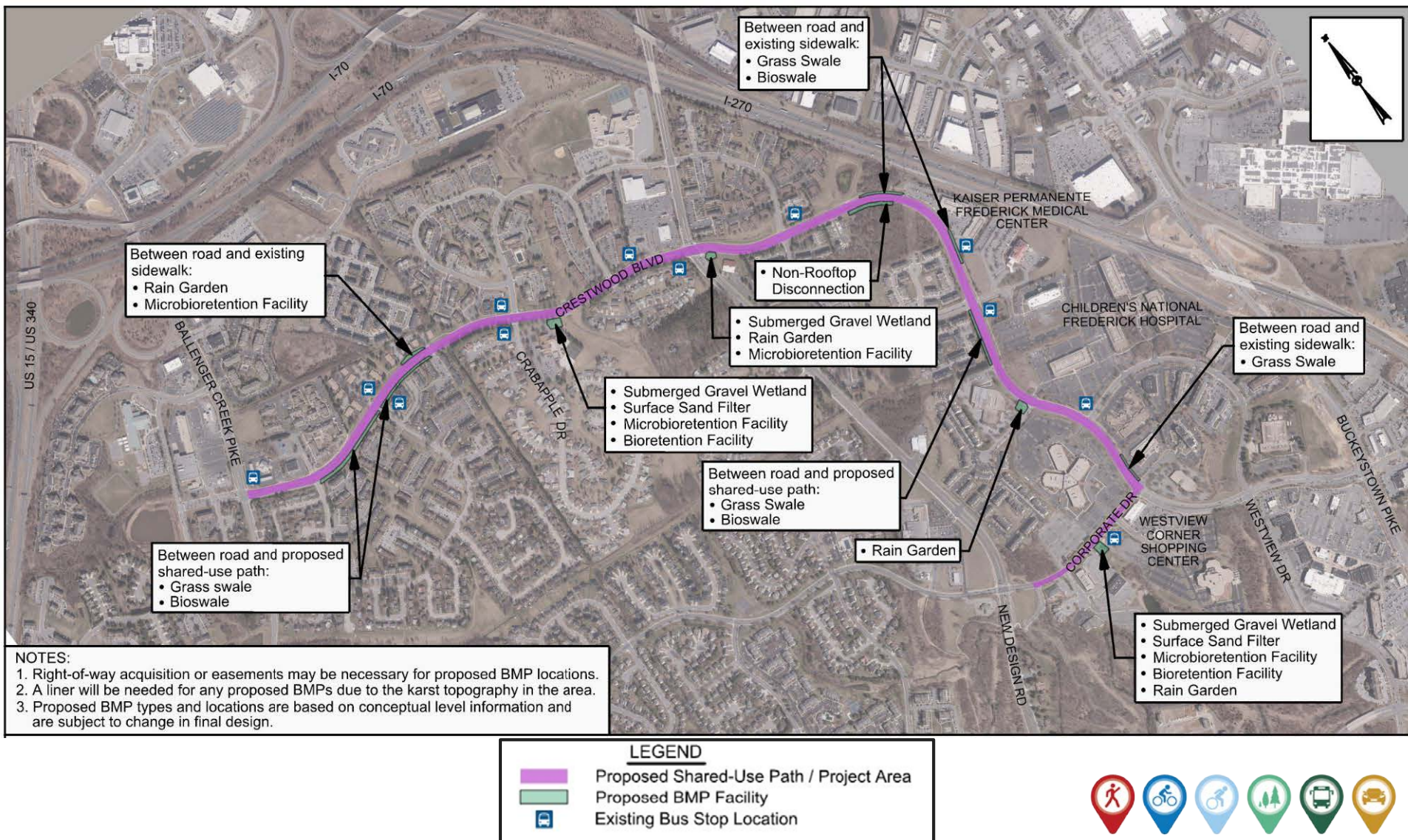
- Rain Gardens
- Microbioretention
- Submerged Gravel Wetlands
- Grass Swales
- Bioswales
- Bioretention
- Surface Sand Filters
- Non-Rooftop Disconnection

Corporate Drive

- Rain Gardens
- Microbioretention
- Submerged Gravel Wetlands
- Bioretention
- Surface Sand Filters
- Non-Rooftop Disconnection



Green Streets: Sample Project





NEXT STEPS



Review and Comment



- Review Draft Plan on Frederick County website.
<https://www.frederickcountymd.gov/DocumentCenter/View/337419/Complete-and-Green-Streets-Plan-Draft-3-24-22->
- Provide comments or input during 30-day public review period.
<https://forms.office.com/r/8G8urtzNUh>
- Comment period closes **Monday May 30, 2022.**





QUESTIONS?





THANK YOU

Provide additional feedback or input on the Draft Complete and Green Streets Plan using the links below by **Monday, May 30th, 2022**.

Thank you!

Draft Plan:

<https://www.frederickcountymd.gov/DocumentCenter/View/337419/Complete-and-Green-Streets-Plan-Draft-3-24-22->

Comment Form:

<https://forms.office.com/r/8G8urtzNUh>

