

## What to Expect From Your Small Area Plan:

- *A plan that addresses the unique issues facing your village.*
- A plan that identifies your village's priorities.
- A plan that contains well-described elements/activities that can be implemented by County agencies and private sector entities- including cost estimates, responsible parties, and timelines.
- A plan that provides guidelines about the appearance of improvements that your village selects ... if any.
- Identification of “catalytic” opportunities.
  - These can include zoning changes, public investments, including infrastructure improvements, private initiatives

The following slides are conceptual examples.

**NONE OF THEM ARE APPLICABLE TO YOUR VILLAGE! :)**

# Road Improvements – Waterford

Specific, actionable recommendations to address problems identified by community residents.

For example:

- Traffic calming
- Parking issues
- Pedestrian and multi-modal access/protection
- Storm water management
- Undergrounding utilities
- Viewshed preservation and/or enhancement
- Village beautification

*Waterford*  
Preserving the Landmark



- ◆ Vehicle parking needs are currently addressed by on-street parking and a few driveways. The shortage of adequate on-street and off-street parking is a challenge for residents, visitors, and tourists; however, several areas within the village are candidates for informal or infrequent parking areas.

In support of traffic calming measures, roadway alignment, pavements, and sidewalk solutions should include:

- ◆ Minor horizontal realigning of roads away from historic structures, such as the Mill
- ◆ Vertical realignment, including lowering the surface of Main Street between Second and the Mill, and lowering the surface of the Corner Store intersection

- ◆ Repair of roadways, curbs, gutters, and sidewalks
- ◆ Extension of existing sidewalks to provide better pedestrian access throughout the village
- ◆ Identification of areas that could be used for temporary or permanent parking in support of Waterford events and businesses
- ◆ Installation of underground utility duct banks and a potable water distribution system—while the roads are being reconstructed to tame traffic and fix drainage.
- ◆ Reconstruction of each street once, with all the infrastructure needed to further the goals of Waterford 2033

## 3.3 Stormwater Management

In 2003, Loudoun County’s study team assessed conditions and developed alternatives for fixing the existing drainage problems, such as the lack of curbs, gutters, and appropriate drainage inlets with respect to the existing asphalt pavement. This 2022 update refines these alternatives, considering the significant revisions to stormwater management regulations in the past 20 years and considering the use of streams and wetlands of the Phillips Farm.

### 3.3.1 Existing Drainage System

Stormwater in the Village of Waterford drains primarily via sheet flow around existing houses and buildings into small roadside swales/ditches. From the roadside swales/ditches, runoff flows either through small storm sewer systems or culverts into the seven outfall locations described in [Table 3-3](#) and shown in [Figure 3-7](#). Of note is the existing drainage channel that runs down Water Street, under Main Street and Second Street, and under the historic structures of the Corner Store and the old Tin Shop, as shown in the photos below.



*Re-route drainage away from Corner Store*



*Re-route drainage*



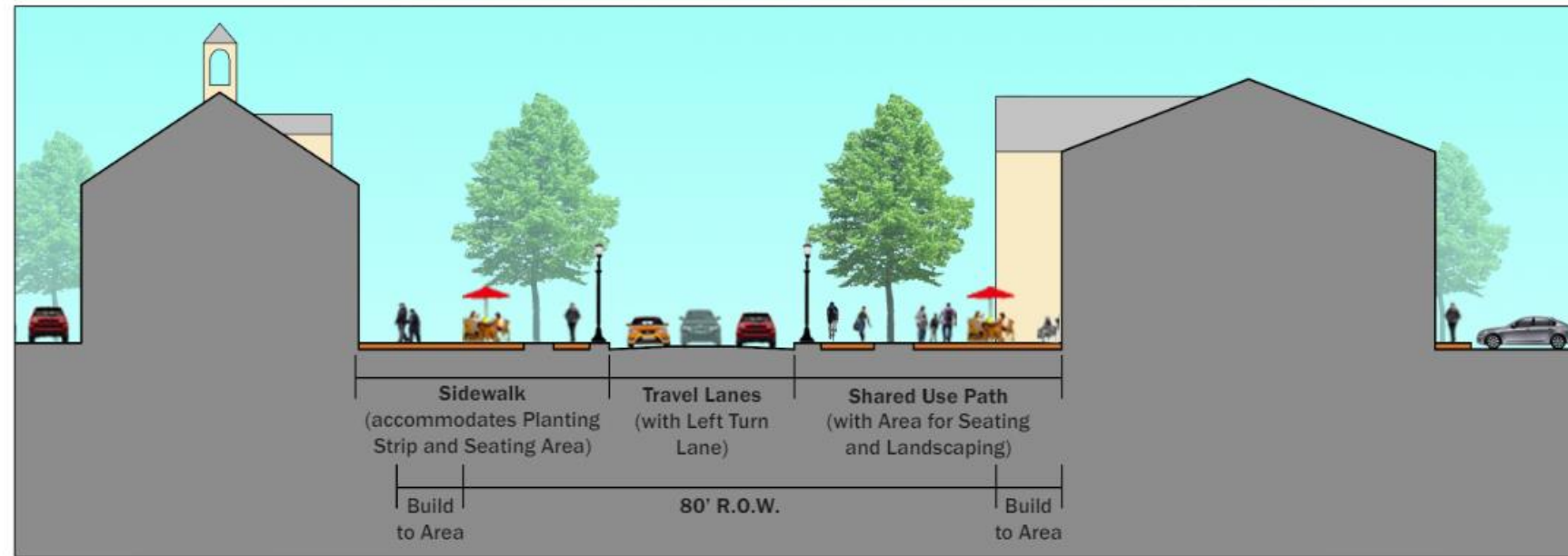
*Re-route drainage from under Tin Shop*



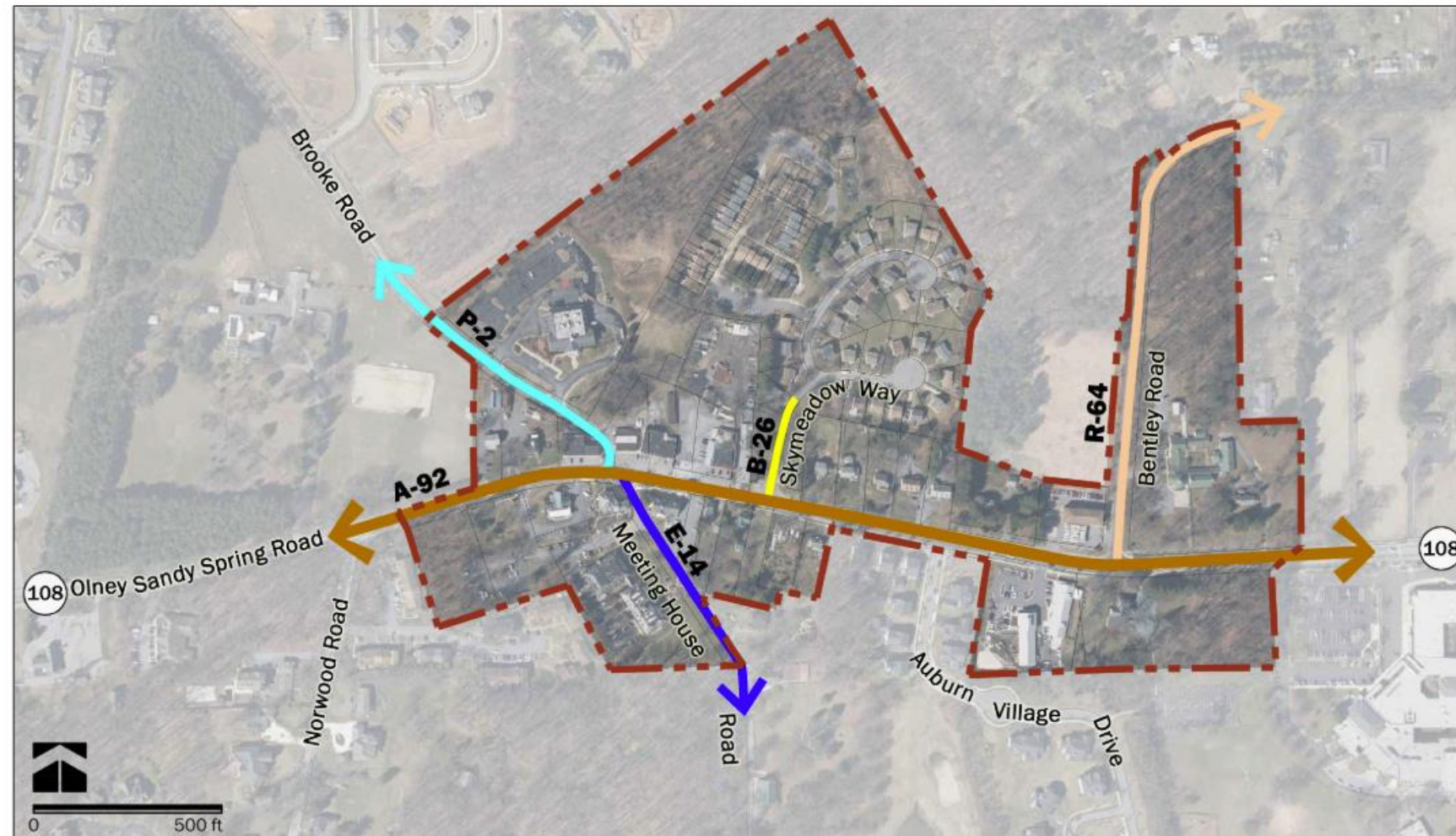
*Keep historic culvert*

# Road Guidelines – Sandy Springs MD

## PLAN RECOMMENDATIONS



**Illustration 11:** Proposed Street Section for MD 108 (Modified 2004.25)



- - - Sandy Spring Rural Village
- Arterial Roads
- Primary Residential Streets
- Rustic Road
- Business District
- Exceptional Rustic Road

**Map 11:** Roadway Classifications

# Traffic calming – Ferrum Village



# Rural Housing Plan - Somerset England

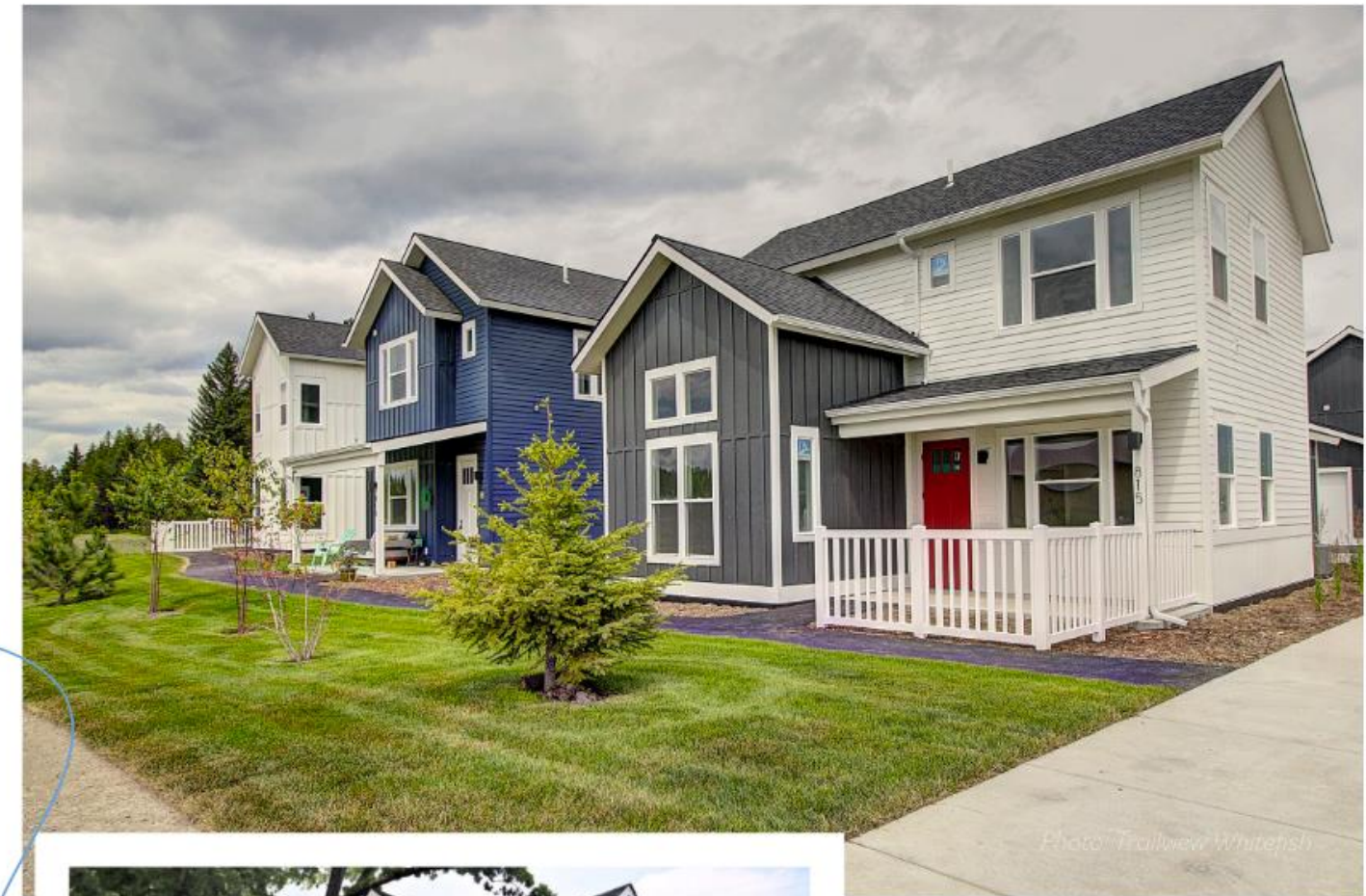


# Housing Particulars - Union Hall Village Plan

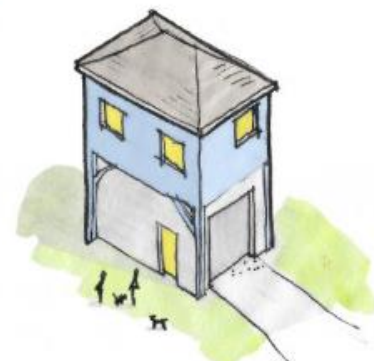
Low-density residential areas should include single-family dwellings of various types, including detached dwellings and duplexes, both in myriad sizes and lot sizes to accommodate a range of residents. Trailview in Whitefish, MT (shown right) is a new development offering workforce housing, and was designed to provide the most amount of homes while preserving the rural nature of the area.

Accessory dwelling units (ADU) are a way that communities can create more affordable housing options - including those for renters, the workforce, and those aging-in-place. Additionally, ADUs can generate income for the property owner.

ADUs can be found within a home, such as a basement; attached as an addition or over a garage; or detached as a standalone building that is smaller than the primary home.



STAND-ALONE DETACHED



ADU OVER A GARAGE



ATTACHED ADU



BASEMENT ADU

Illustration: Housing Solutions Network

# Implementation Strategies - Crozet

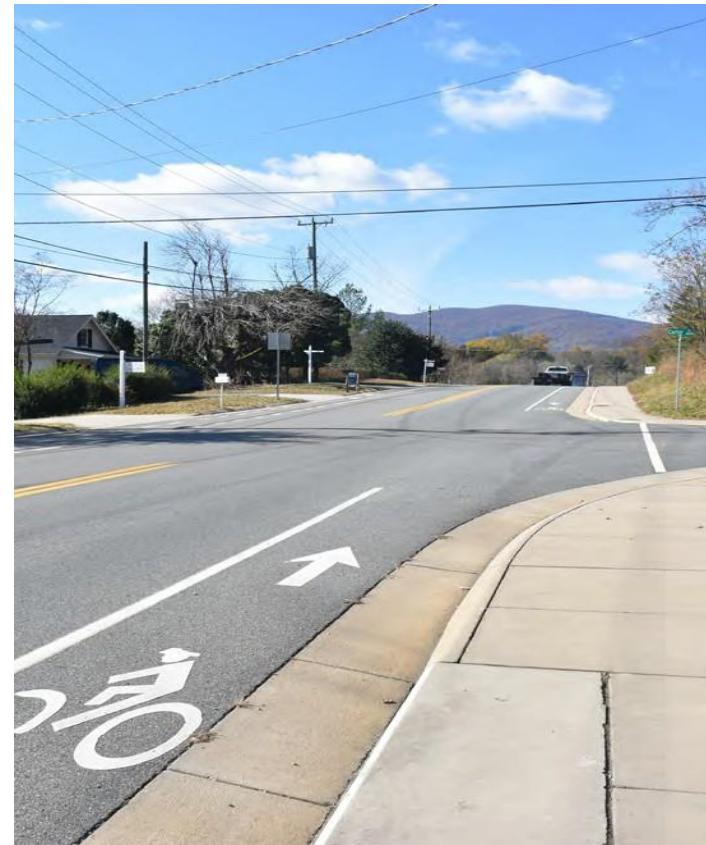
## Project Timing

The Catalyst and Future Project tables also include an estimated Realization Timeframe. **Realization Timeframe** refers to the amount of time that it will take for a project to be completed, from start to finish, when everything is in place for the project, such as funding and land acquisition. Funding and realization timelines for identified transportation projects are estimates based on current State and Federal Transportation funding programs. When outside funding sources are needed (especially for the higher cost projects), timelines are determined by State and Federal processes. Delays are also possible if the County is not able to secure funding for identified projects, which is not uncommon due to the competitive nature of these programs.

## Cost Estimates

**Cost estimates** are general ranges and do not consider outside funding sources (such as state funds, federal funds, grants, etc.) that may reduce the project's cost to the County.

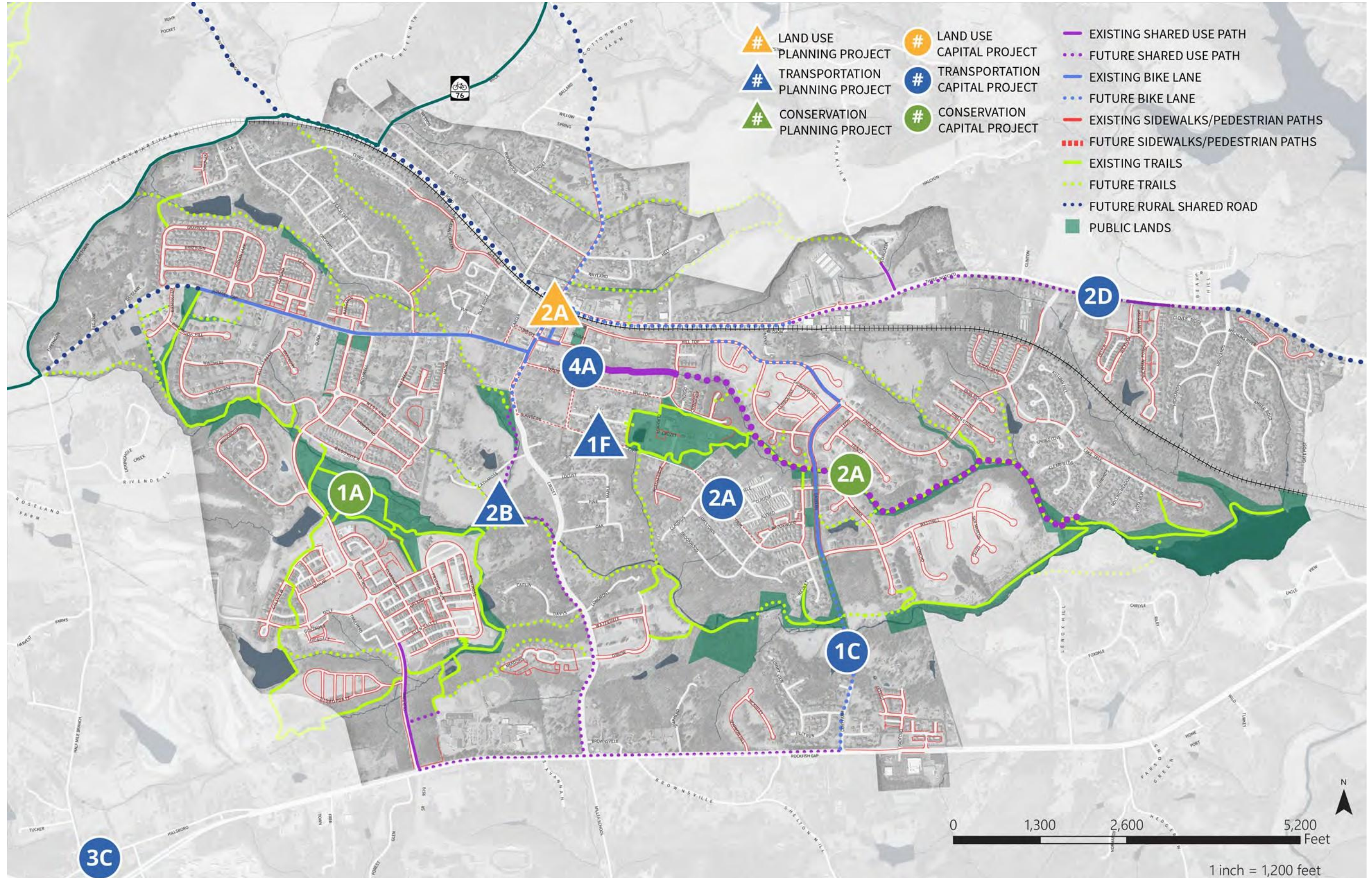
- \$: <\$500,000
- \$\$: \$500,000 - \$3,000,000
- \$\$\$: \$3,000,000 - \$8,000,000
- \$\$\$\$: \$8,000,000 - \$12,000,000
- \$\$\$\$\$: >\$12,000,000



# Catalyst Projects

Name	Chapter	Number	Recommendation Type	Cost Estimate	Realization Timeframe
<b>Eastern Avenue Construction (including Lickinghole Creek Stream Crossing)</b>	Transportation	1C	Capital	\$\$\$\$\$	5 years
<b>Crozet Connector Trail Upgrade and Extension</b>	Conservation	2A	Capital	\$\$	1 year (and ongoing maintenance)
<b>Western Park (Phase 1)</b>	Conservation	1A	Capital	\$\$	2-3 years
<b>Downtown Neighborhoods Architectural and Cultural Resources Study</b>	Land Use	2A	Planning	Phase 1: \$ Phase 2: \$	Phase 1: 1 year Phase 2: 1-2 years
<b>Three Notch'D Road Shared-Use Path (Phase 1)</b>	Transportation	2D	Capital	\$\$ - \$\$\$	4 years
<b>Three Notched Trail Feasibility Study</b>	Conservation	3B	Planning	\$	1 year
<b>Priority Sidewalk Connections</b>	Transportation	2A	Capital	1. \$\$\$ 2. \$\$ 3. \$\$\$ 4. \$\$\$ 5. \$\$	3 - 4 years per project
<b>Downtown High Street Improvements</b>	Transportation	4A	Capital	\$\$	3 years
<b>Park Road Corridor Design</b>	Transportation	1F	Planning	\$	1 year
<b>Crozet Avenue Shared-Use Path Feasibility Study</b>	Transportation	2B	Planning	\$	1 year
<b>Naturally Occurring Affordable Housing Survey &amp; Recommendations</b>	Land Use	3A	Planning	\$	1 year
<b>Affordable/Workforce Housing Priority Review Process</b>	Land Use	3C	Policy	\$	1 year
<b>Afton Express Stop</b>	Transportation	3C	Capital	\$	1 year

# Location of Catalyst Projects





# Implementation Cost Estimate - Waterford



### 5.3 Preliminary Estimates of Project Cost

Based on the concept plans developed for this 2022 *Preserving the Landmark* master plan, planning-level project budget estimates have been prepared by the study team to assist in implementing the next steps in the planning process. To develop the estimated costs, planning level unit costs were applied to aspects of the concept designs for burying the wires, taming the traffic, fixing the drainage, lighting the village, adding the network of pipe for potable water supply, and repaving the streets and sidewalks.

The result of this effort is a preliminary cost estimate for construction, engineering design and construction administration, mobilization, maintenance of traffic, easements, permits, and contingencies. These planning-level estimates of project costs are summarized in *Table 5-1*. The more detailed estimates are included in *Appendix H*.

Table 5-1

Preliminary Engineering Phase	
Preliminary Engineering	\$4,200,000
Additional Engineering (Plats, Permits, Etc.)	\$3,150,000
<b>Total Preliminary Engineering Costs</b>	<b>\$7,350,000</b>
Construction Phase	
Construction Costs	\$21,000,000
Mobilization (17%)	\$3,570,000
Maintenance of Traffic	\$3,150,000
Electrical Service Connections	\$1,700,000
Village Water System	\$9,698,000
Contingency on construction costs (40%)	\$8,400,000
Construction Engineering & Inspection (15%)	\$3,150,000
<b>Total Construction Costs</b>	<b>\$50,670,000</b>
<b>Total Estimated Project Budget - 2022 Dollars (rounded)</b>	<b>\$58,000,000</b>
<b>Total Estimated Project Budget - 2024 Dollars (rounded)</b>	<b>\$63,900,000</b>
<b>Total Estimated Project Budget - 2027 Dollars (rounded)</b>	<b>\$74,000,000</b>

- Notes:
1. Costs are preliminary in nature and based on concept designs developed by consultant team in close coordination with representatives from the Village of Waterford.
  2. Escalation factors used to project 2024 and 2027 cost estimates: 5.00% Annually.
  3. Costs include construction, engineering design and construction administration, mobilization, maintenance of traffic, easements, permits, and contingencies.
  4. Costs assume that all items will be constructed as part of a total, phased project.

# Village of Rivanna Implementation Projects

Implementation Strategy	Estimated Cost/Funding	Responsible Department/ Division	Issues to Be Addressed Actions Required	Milestones	Timing Short-term (FY08 to FY12) Mid-term (FY13 to FY17) Long-term (FY18 and out)
<b>TRANSPORTATION</b>					
<b>US 250 East</b>					
I-64 at Shadwell Interchange improvements – <b>Regional – outside of Village</b>	\$3.14 million	VDOT and developer contributions	<ul style="list-style-type: none"> <li>■ Install dual left-turn lanes on southbound exit ramps onto US 250</li> </ul>	<ul style="list-style-type: none"> <li>■ Design</li> <li>■ Construct</li> </ul>	Short-term
Four-lane from Shadwell Interchange to Milton Road or Glenmore Way entrance – <b>Regional – outside of Village</b>	\$12 million	VDOT	<ul style="list-style-type: none"> <li>■ Provide capacity/maintain adequate level of service</li> <li>■ Design sensitivity towards historic setting, EC, adjacent historic properties and easements</li> </ul>	<ul style="list-style-type: none"> <li>■ Design for road sections</li> <li>■ Construct</li> </ul>	Design – mid-term  Construction – mid to long term; construction with or after improvement to US 250 in Pantops
Intersection improvements/optimize signal timing at intersection of US 250 and Route 729 (N. Milton Road) - <b>Regional – outside of Village</b>	\$850,000	VDOT	<ul style="list-style-type: none"> <li>■ Improve capacity and functionality of intersection</li> <li>■ Additional turn lanes on Route 729</li> <li>■ Lengthen turn lanes of Route 729</li> </ul>	<ul style="list-style-type: none"> <li>■ Design</li> <li>■ Construct</li> <li>■ Coordinate with bridge improvement project</li> </ul>	Coordinate with bridge over railroad at Route 22 – short or mid-term
Bridge over railroad at Route 22 to solve short-term safety - <b>Regional – outside of Village</b>	TBD	VDOT	<ul style="list-style-type: none"> <li>■ Address deteriorating condition of bridge</li> <li>■ Design/construct to ultimate future need</li> <li>■ Accommodate pedestrians and bikes</li> </ul>	<ul style="list-style-type: none"> <li>■ Complete design</li> <li>■ Construct</li> </ul>	Short-term