

Yadkin River Greenway Feasibility Study

**Susan
Hatchell**

Landscape Architecture, PLLC

Yadkin River Greenway Feasibility Study

We'll review:

- Project process
- Goals and objectives
- Site Analysis
- Public Input
- Recommended greenway and sidewalk plan
- Phasing and Costs
- Implementation



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Process

- Data collection/assessment
- Preliminary recommendations
- Public input
- Greenway recommendations
- Prepare draft document
- Review by public entities
- Final Plan Adoption



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Partnerships

Village of Clemmons

Town of Bermuda Run

Town of Lewisville

Forsyth County

Davie County

Winston-Salem Urban Area Metropolitan Planning Organization



Project Goals and Objectives

Community Goals

- Integrate new greenway with existing and proposed bike/pedestrian opportunities to create a network
- Accessible for all, encourage intergenerational uses
- Safe and secure
- Create an identity for the greenway, incorporate art and/or interpretation

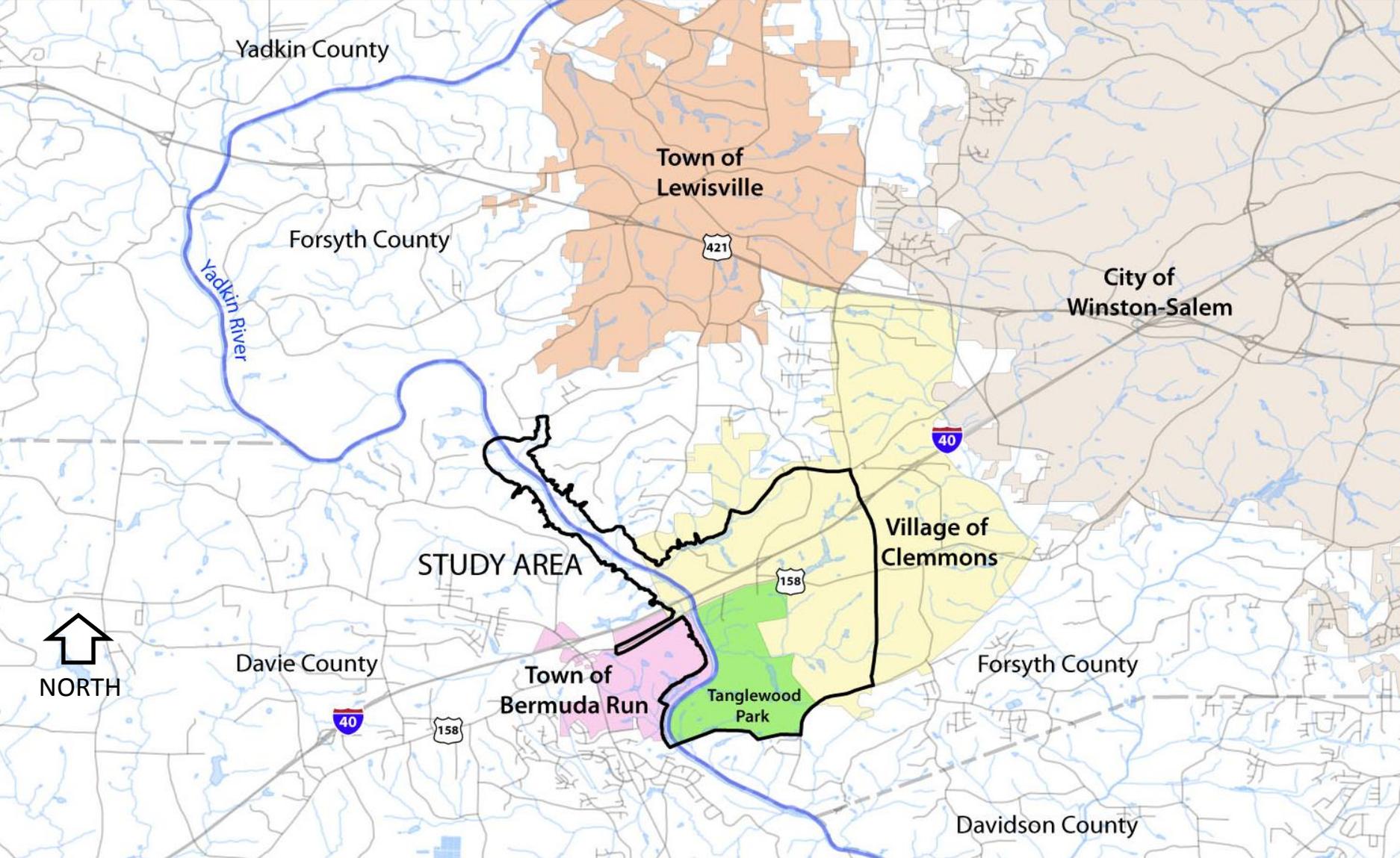
Environmental Goals

- Integrate sustainable concepts such as stormwater Best Management Practices
- Create additional habitat for plants and animals, attract wildlife
- Improve biodiversity

Scenic Goals

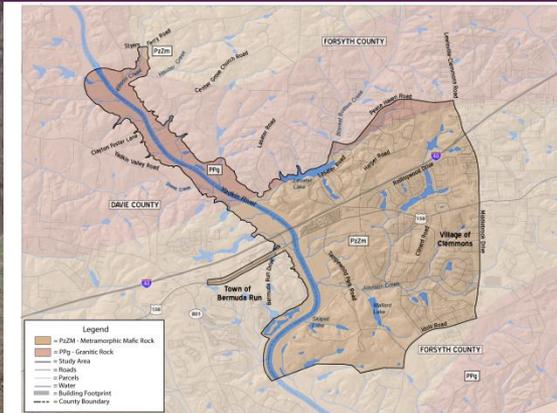
- Maintain sense of place
- Preserve scenic quality and natural beauty of the river corridor and rural character

Regional Context



Site Analysis

- Natural resources
- Existing recreational needs & resources
- Cultural history
- Infrastructure and utilities
- Demographics
- Zoning and land use
- Existing and future development



Public Input

- Public Input Meeting held on November 1, 2010
- 200 people attended
- Attendees made comments on maps
- Survey launched – hard copies and online



Survey Results

- 235 responses, 209 completed survey
- Respondents:
 - Live within five miles (59%)
 - Would use the facility weekly (42%)
 - Would arrive by car (69%)
- Preference to connect existing and Proposed parks across the river (67%)
- Would use the trail most often for
 - Bicycling (66%)
 - Walking for pleasure (60%)
 - Fitness (52%)

**YADKIN RIVER GREENWAY
FEASIBILITY STUDY**

Please visit www.dot.cityofws.org before taking this survey and view the public presentation explaining the project, the preliminary concept, and the project summary.

PUBLIC INPUT SURVEY

1. Do you think you will use this proposed trail . . .

- a. Daily
- b. Weekly
- c. Monthly
- d. Three or four times a year
- e. Once a year or less
- f. Never

2. What sort of places would you prefer to see connected by this trail? (Please select all that apply.)

- a. Connect existing and proposed parks across the river
- b. Connect existing and proposed parks to adjacent neighborhoods
- c. Connect the east side of the river from Tanglewood Park to Styers Ferry Road
- d. Connect the west side of the river from the proposed Riverfront Park to a trailhead to the north
- e. Connect existing historic or archaeological sites along the river
- f. Connect the trail to the existing paddle trail
- g. Other: _____

3. Which ways would you prefer to use the trail? (Please select all that apply.)

- a. Walking for pleasure
- b. Walking for fitness
- c. Running/jogging
- d. Bicycling
- e. Roller blading
- f. Horseback riding
- g. Transportation to schools, shopping, parks, etc.
- h. Other: _____

4. How far away do you live from the study area?

- a. Less than one mile
- b. One to five miles
- c. Five to ten miles
- d. Over ten miles

5. Do you own property in the study area?

- a. Yes
- b. No

6. How will you arrive to use the trail? (Please select all that apply.)

- a. On foot
- b. By car
- c. On a bike
- d. On horseback
- e. By canoe
- f. Other: _____

7. Comments: _____

Thank you for your input. Please return the survey by December 2, 2010.

For more information on the project, please contact:

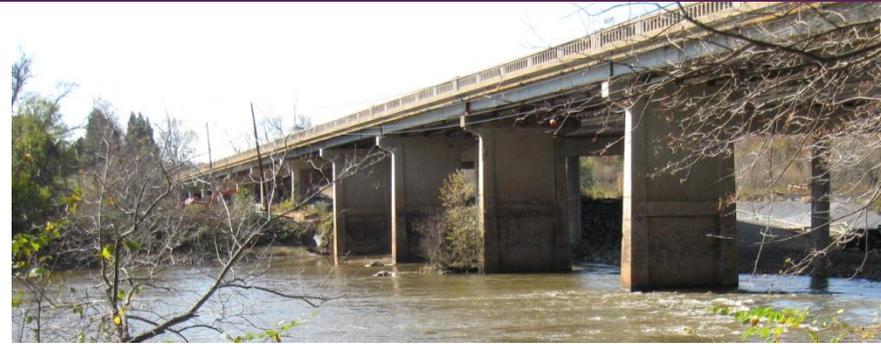
Megan Ledbetter, Planner, Village of Clemmons at (336) 766-7511 or mledbetter@clemmons.org
Lee Rollins, Town Manager, Town of Bermuda Run at (336) 998-0906 or lrollins@townofbr.com
Marty Myers, Planner, Town of Lewisville at (336) 945-1023 or planner@lewisvillenc.net
Margaret Bessette, Principal Planner, City of Winston-Salem at (336) 747-7058 or margba@cityofws.org

Greenway and Sidewalk Pedestrian Network

- Combination of trails and sidewalks

Trails:

Yadkin River Trail
Ellison Creek Trail
Blanket Bottom Creek Trail
Fair Oaks Neighborhood Trail
Tanglewood Access Trail
Bahnson Lake Trail
Idols Road Trail



Sidewalks:

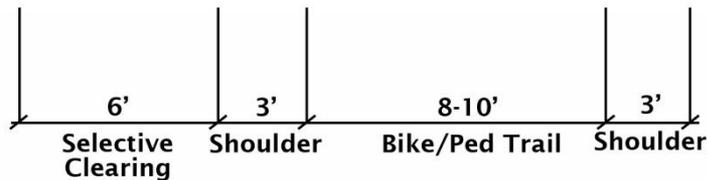
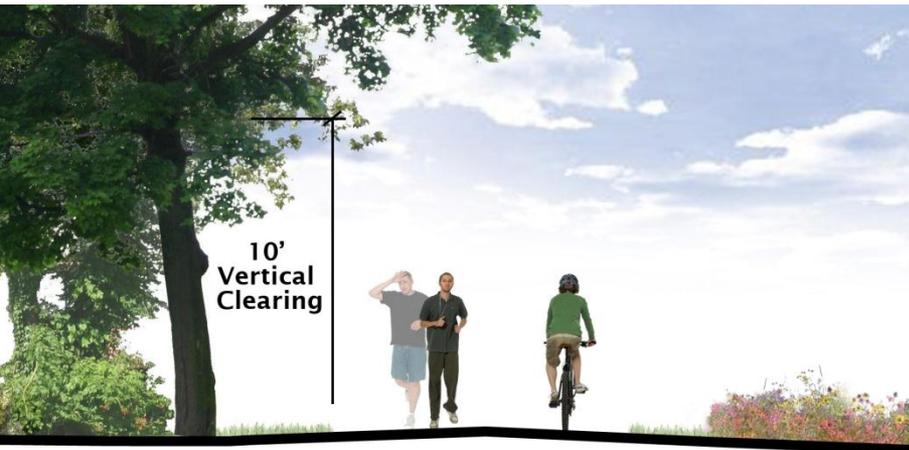
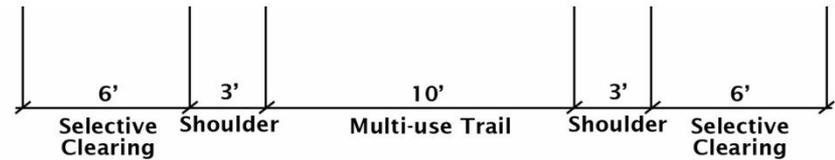
US 158 Trail/Sidewalk
NC 801
Lasater Road
Fair Oaks Drive
Peace Haven Road

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Trail Types – Multi-use & Bicycle/Pedestrian Trails

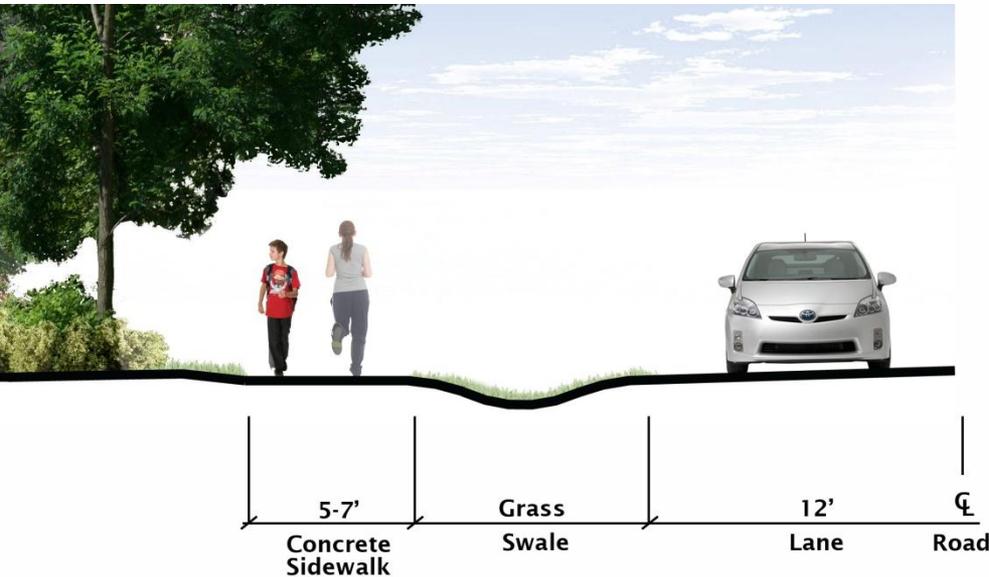
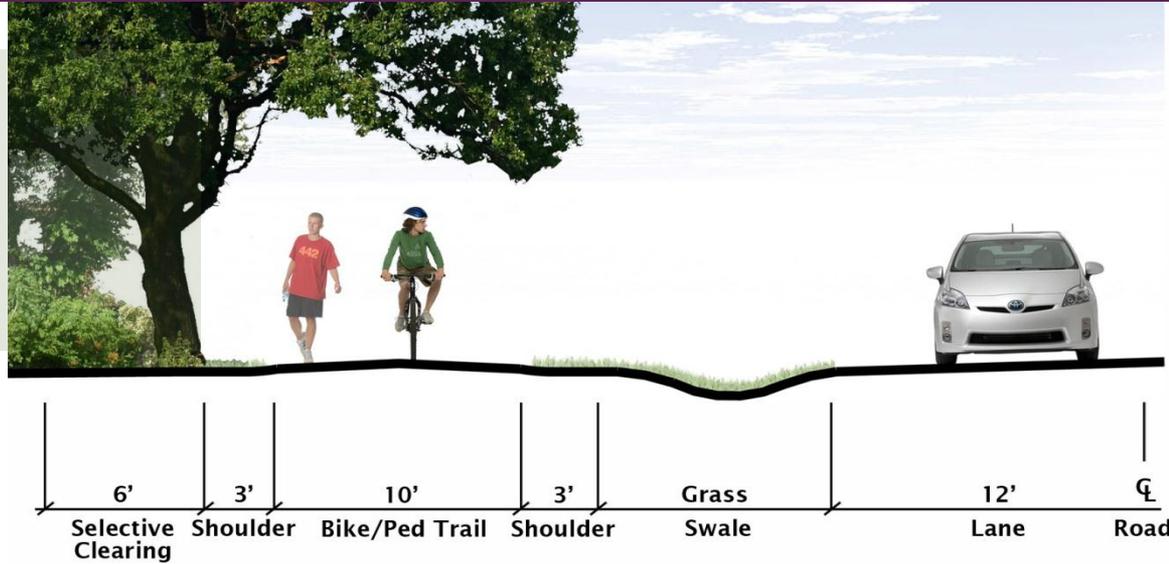
- 10' multi-use trail with decomposed granite screenings
- Bike, pedestrian and equestrian



- 8-10' bike/ped trail with asphalt or decomposed granite screenings

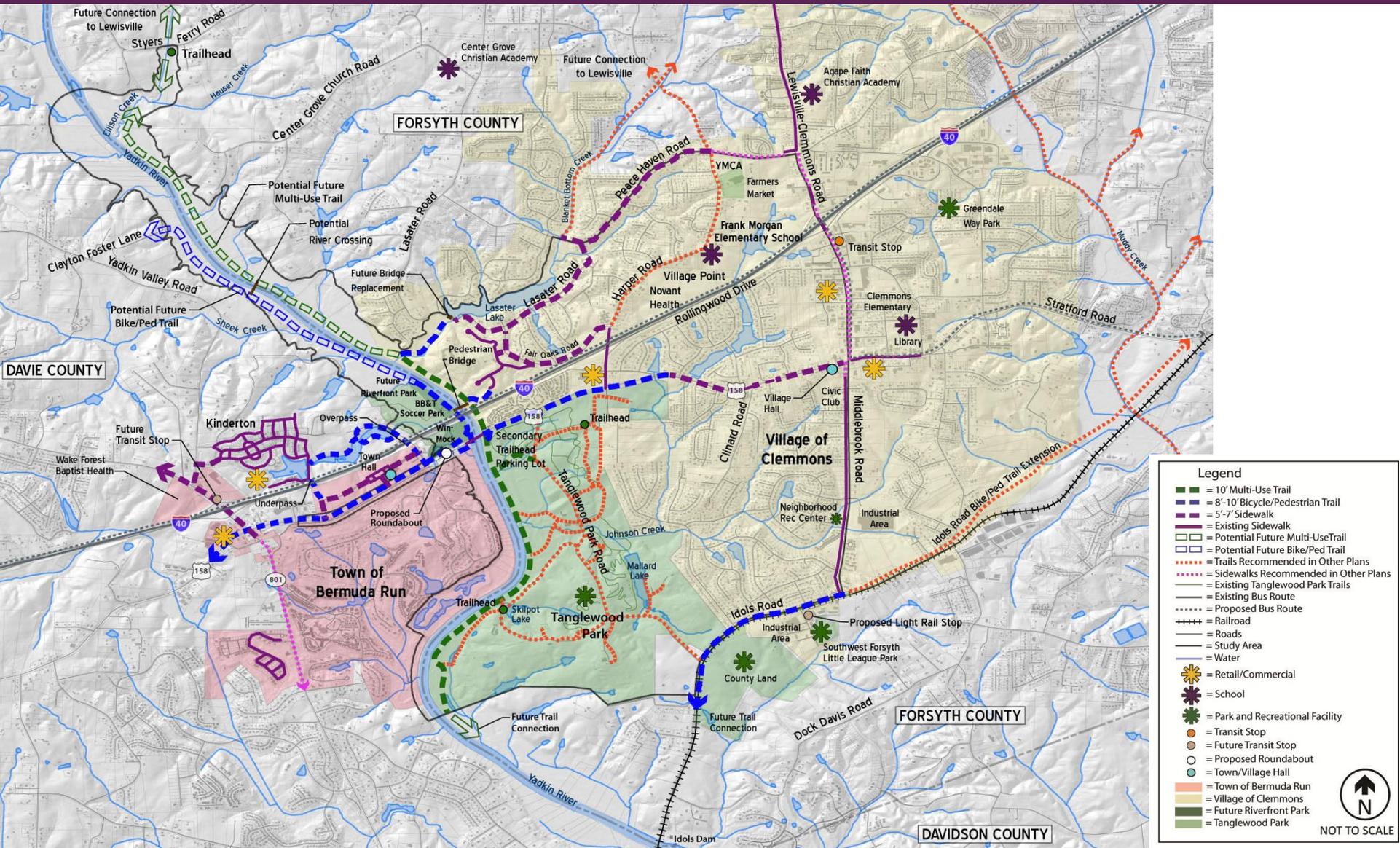
Trail Types – Bike/Ped Trail & Sidewalk at Roadway

- 8-10' bike/ped trail with asphalt or concrete
- Adjacent to roadway
- Grass swale for drainage

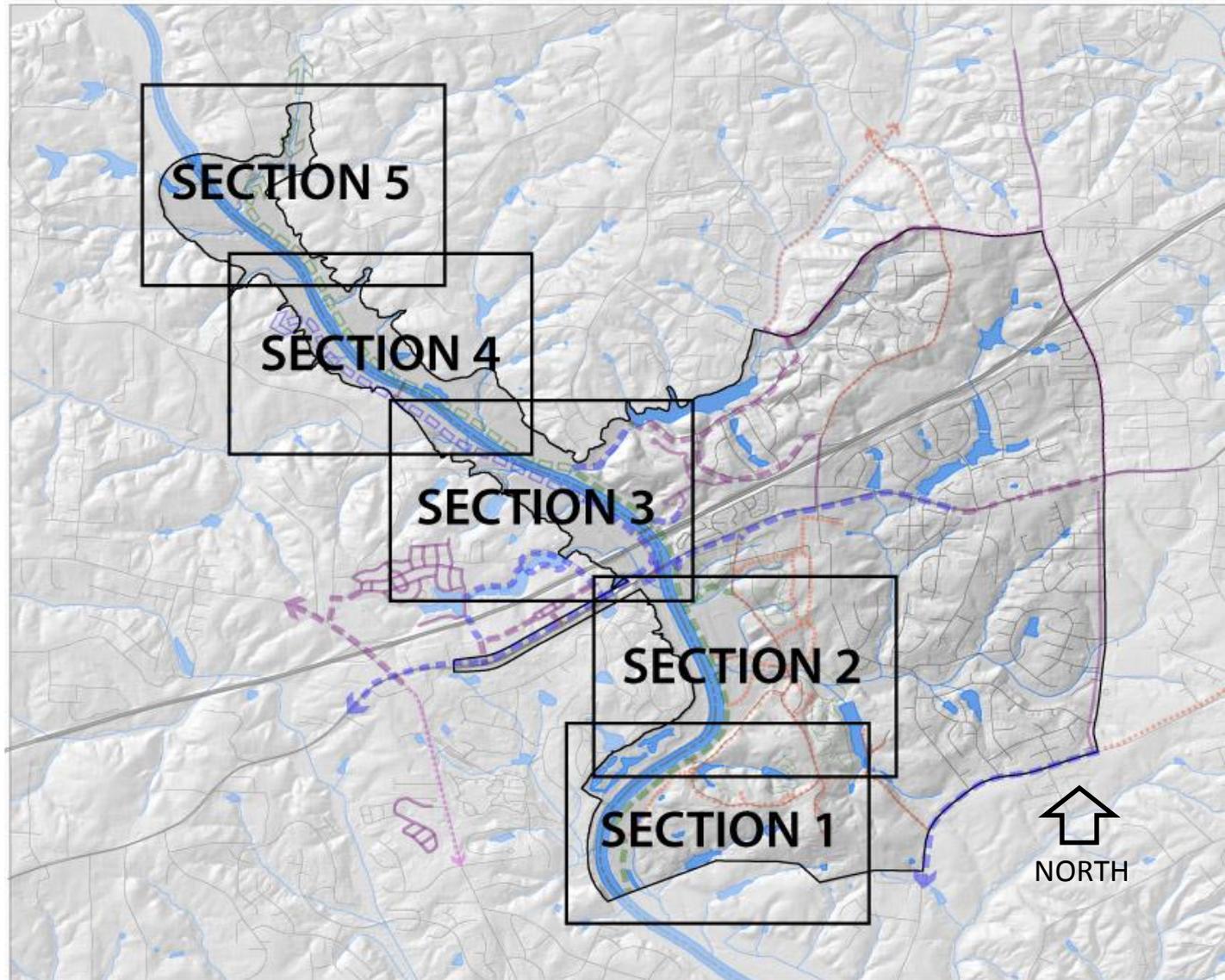


- 5-7' sidewalk with grass swale for drainage

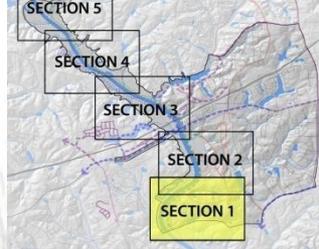
Recommendations for Greenways and Sidewalks



Greenway Alignment



Section 1 - East

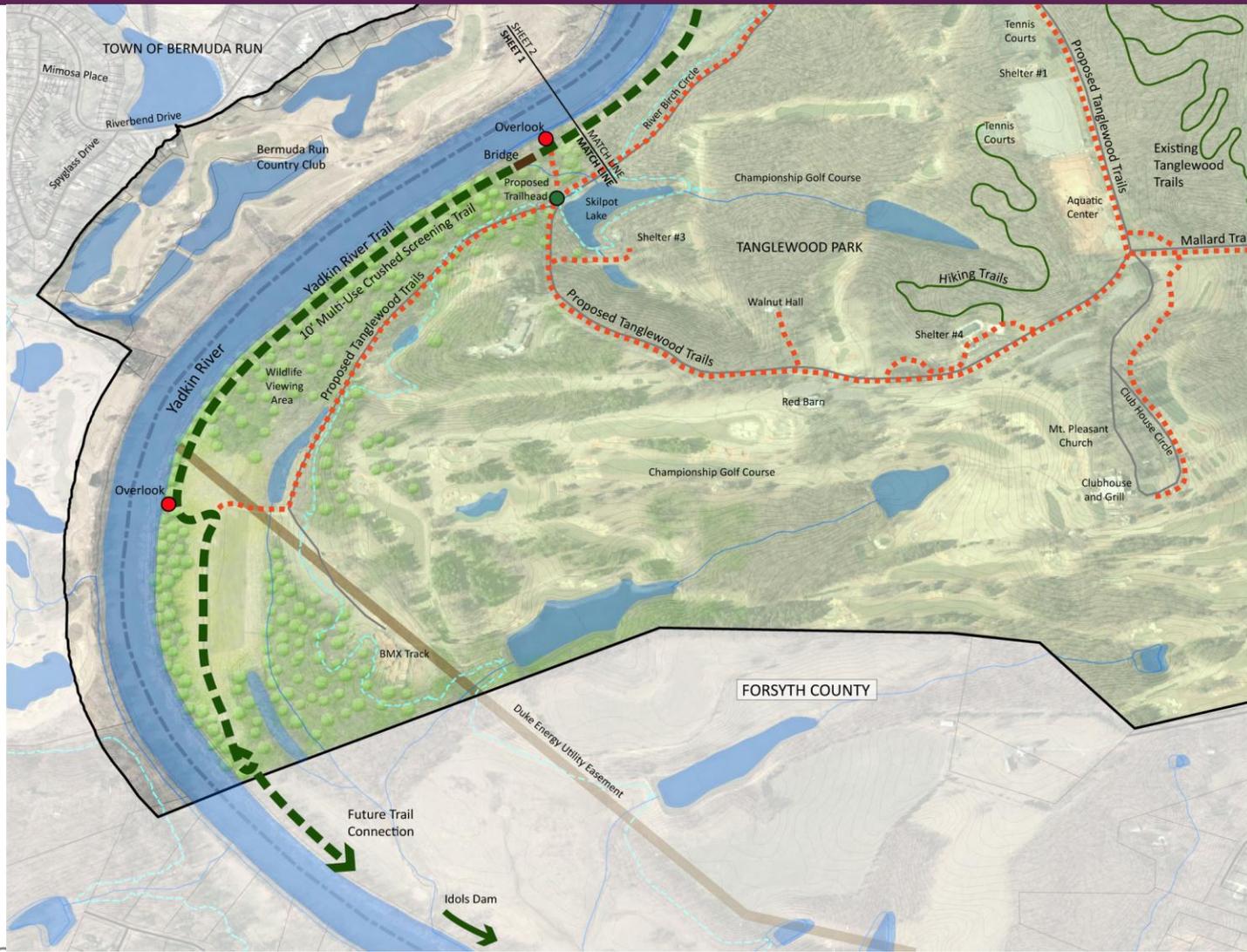


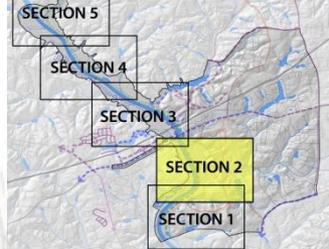
LEGEND

- = STUDY AREA
- = EXISTING PONDS AND LAKES
- = EXISTING WETLANDS
- = EXISTING STREAMS AND CREEKS
- = EXISTING 100 YEAR FLOODPLAIN
- = PROPOSED MULTI-USE TRAIL
- = PROPOSED BICYCLE/PEDESTRIAN TRAIL
- = PROPOSED SIDEWALK
- = EXISTING SIDEWALK
- = PROPOSED PEDESTRIAN BRIDGE
- = PROPOSED TANGLEWOOD TRAILS
- = EXISTING TANGLEWOOD TRAILS
- = PROPOSED OVERLOOK
- = PROPOSED TRAILHEAD
- = CANOE ACCESS
- = EXISTING PARCELS
- = EXISTING TOPOGRAPHY

NOT TO SCALE

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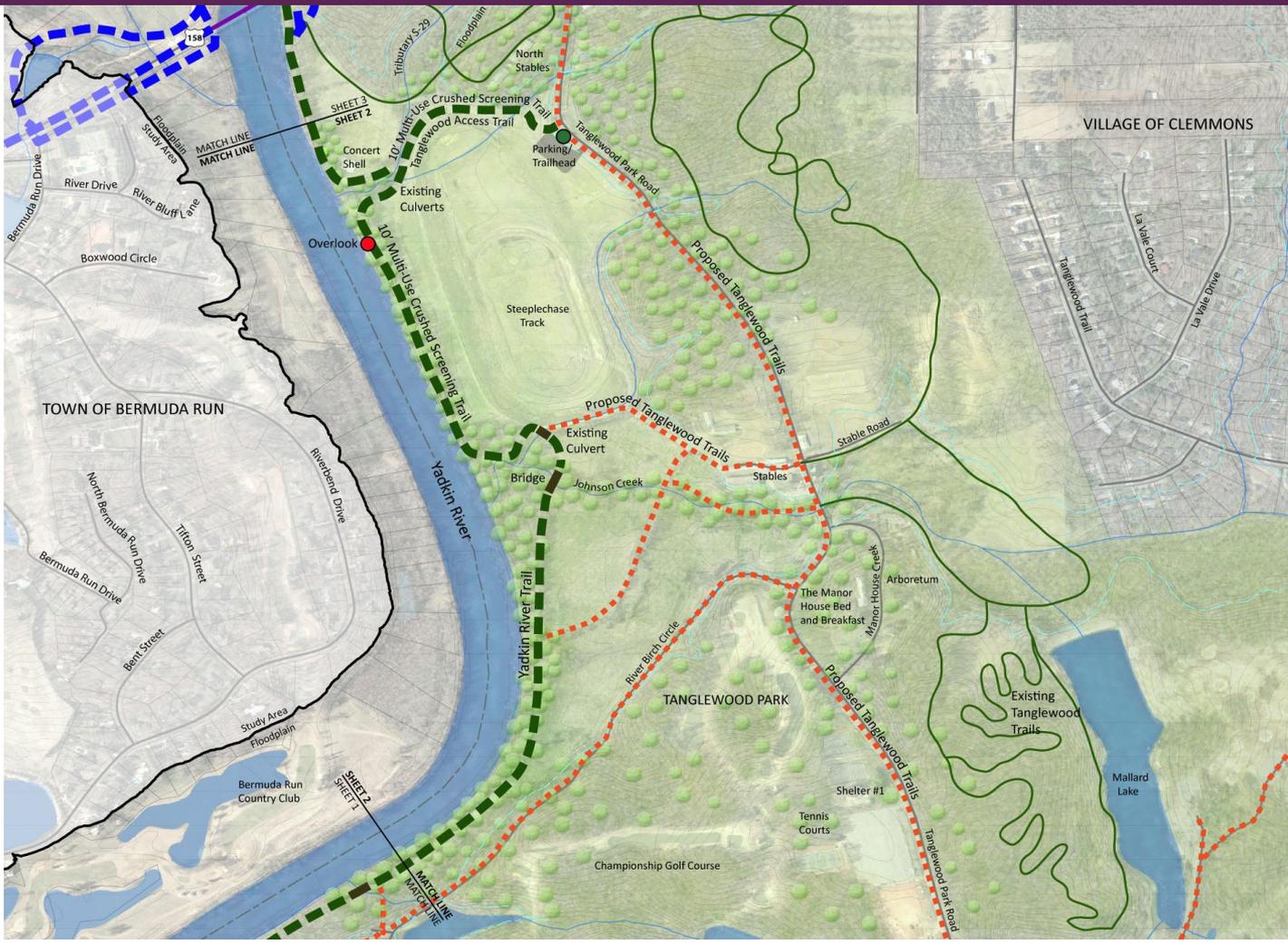
Section 2 - East

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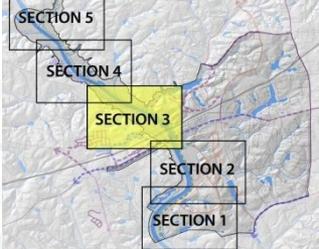
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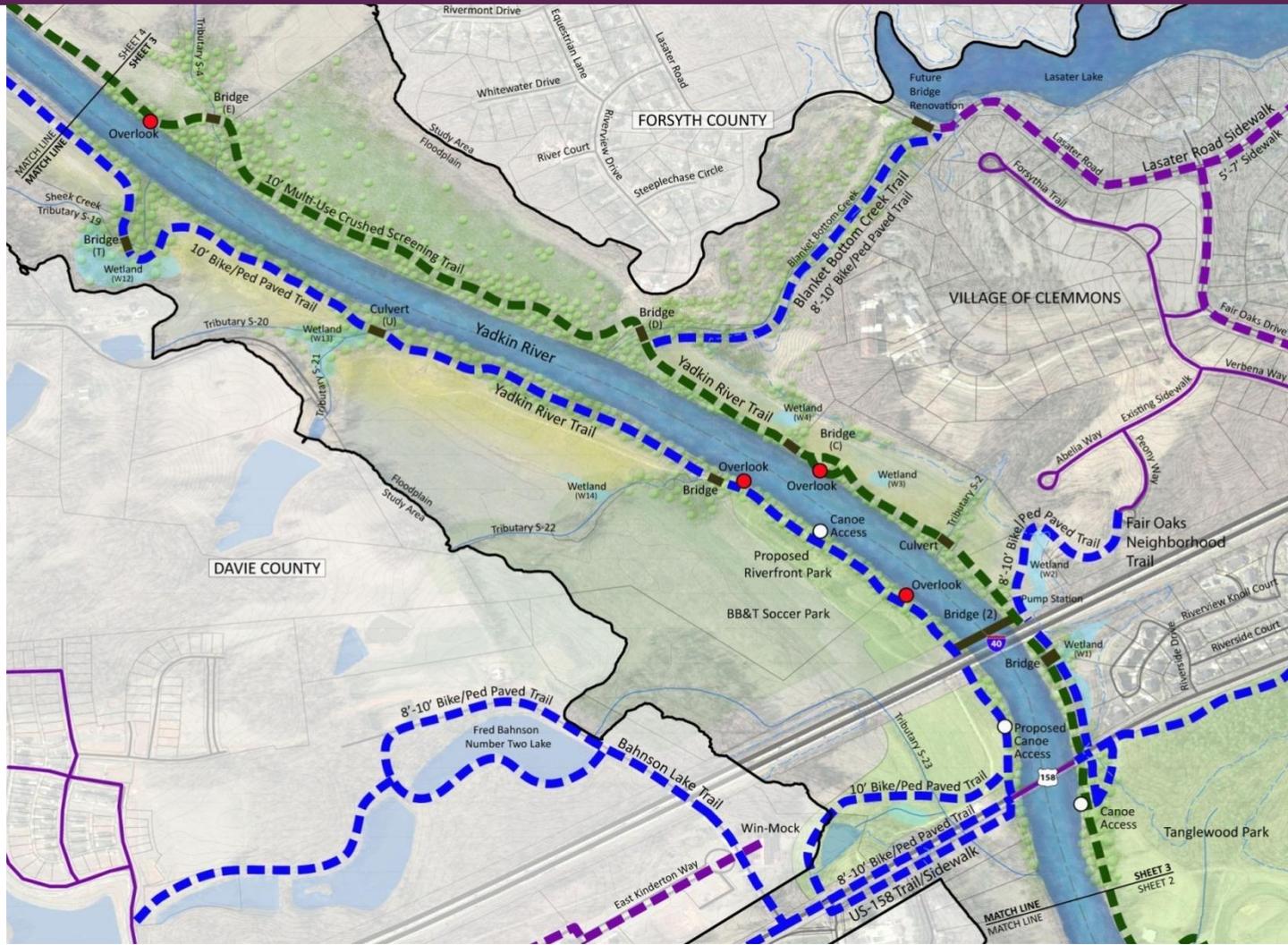
Section 3 - East



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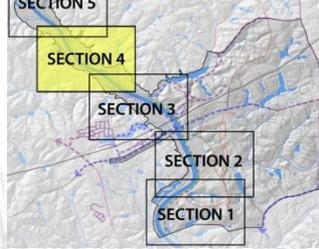
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Section 4 - East

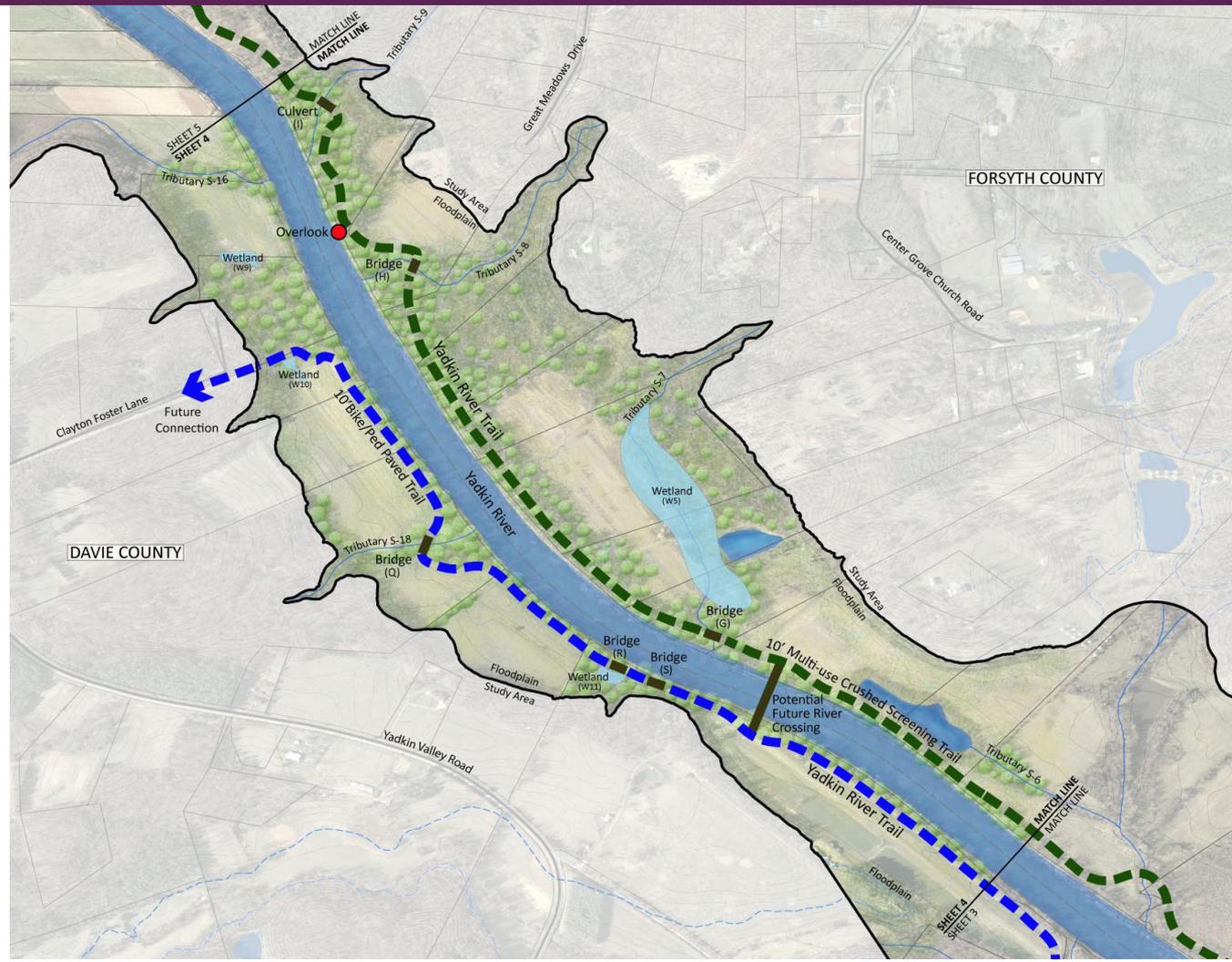


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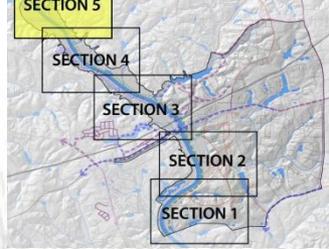
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Section 5 - East

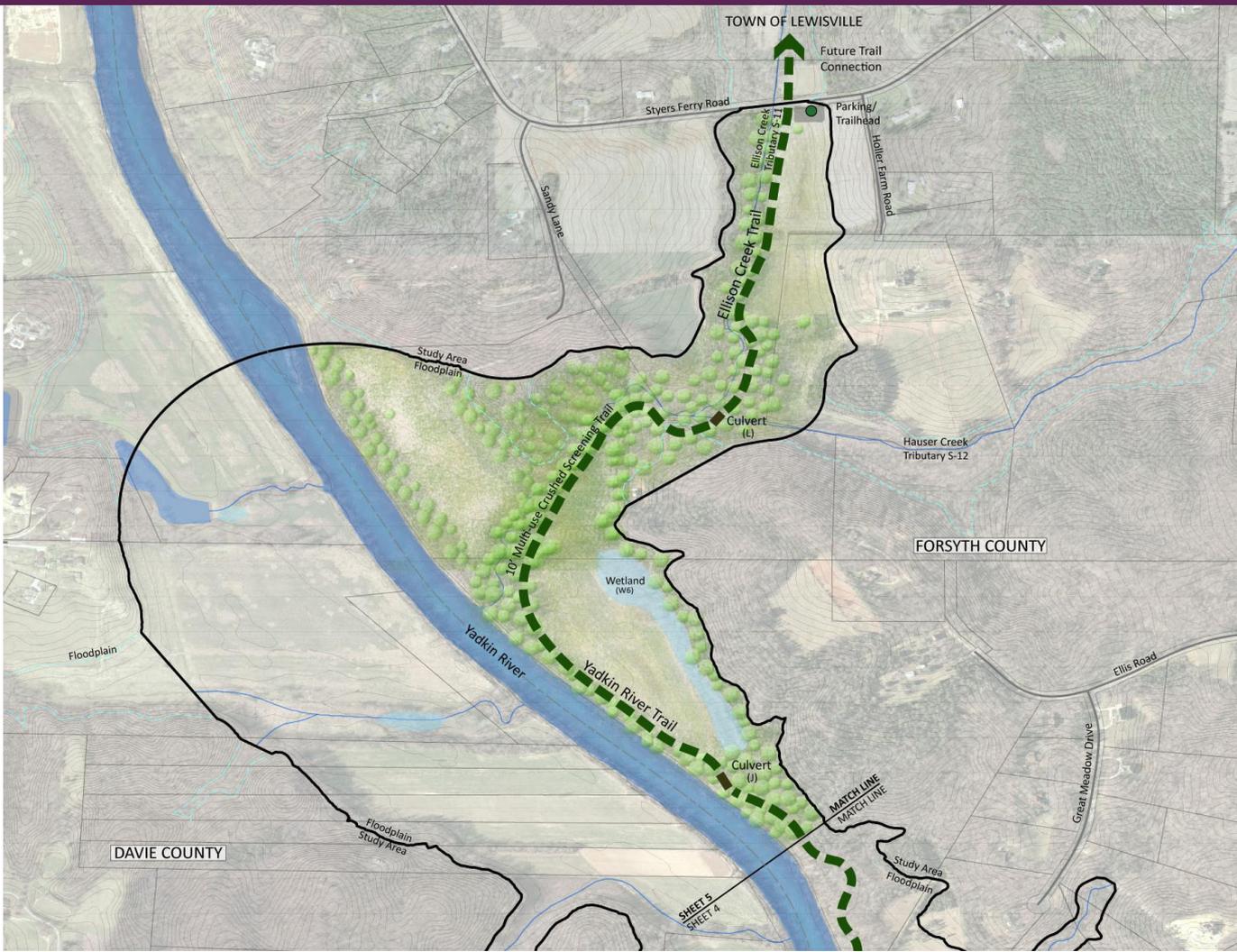


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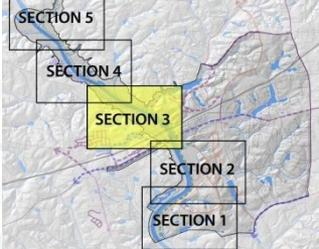
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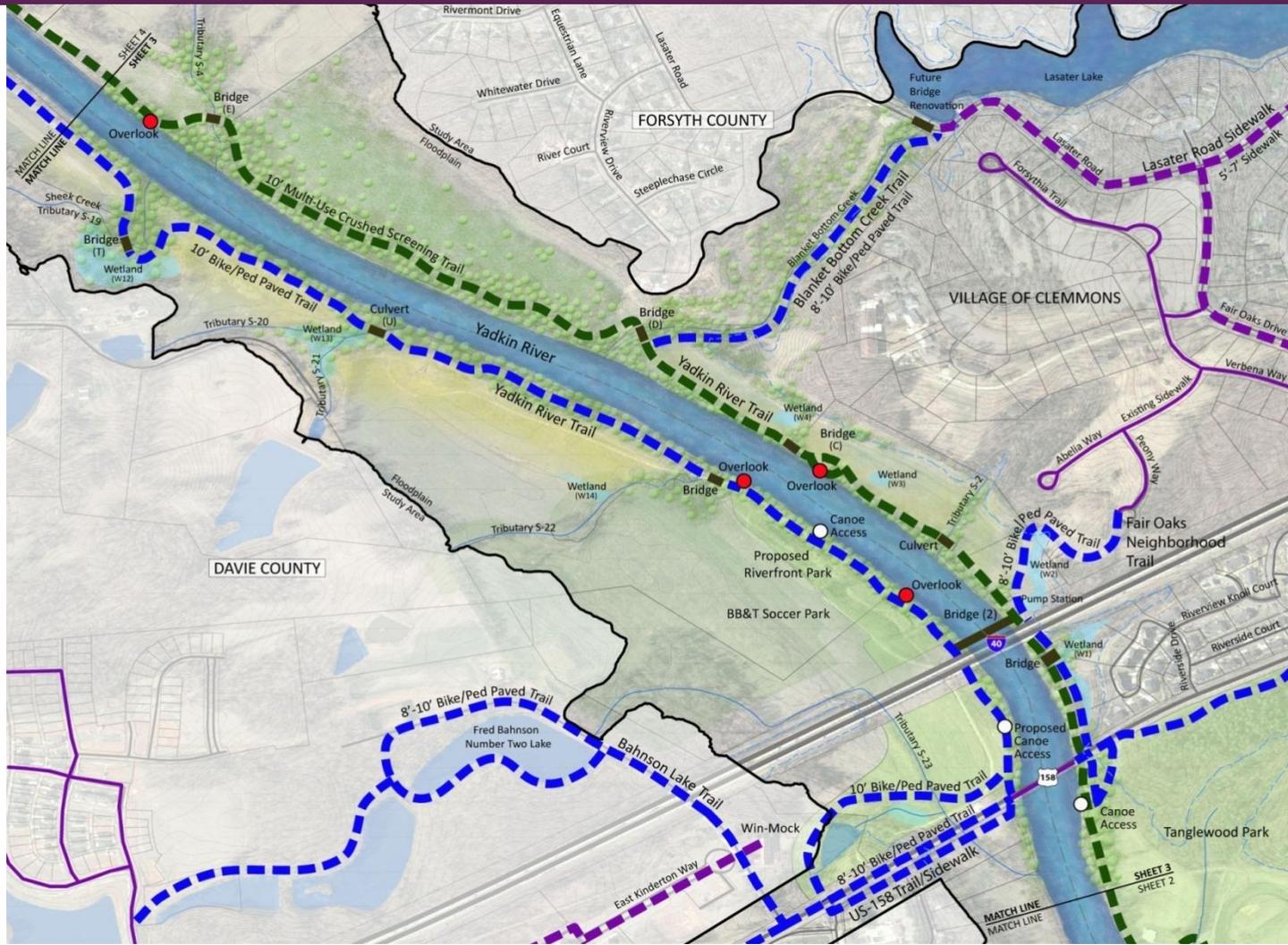
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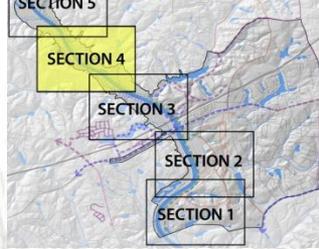
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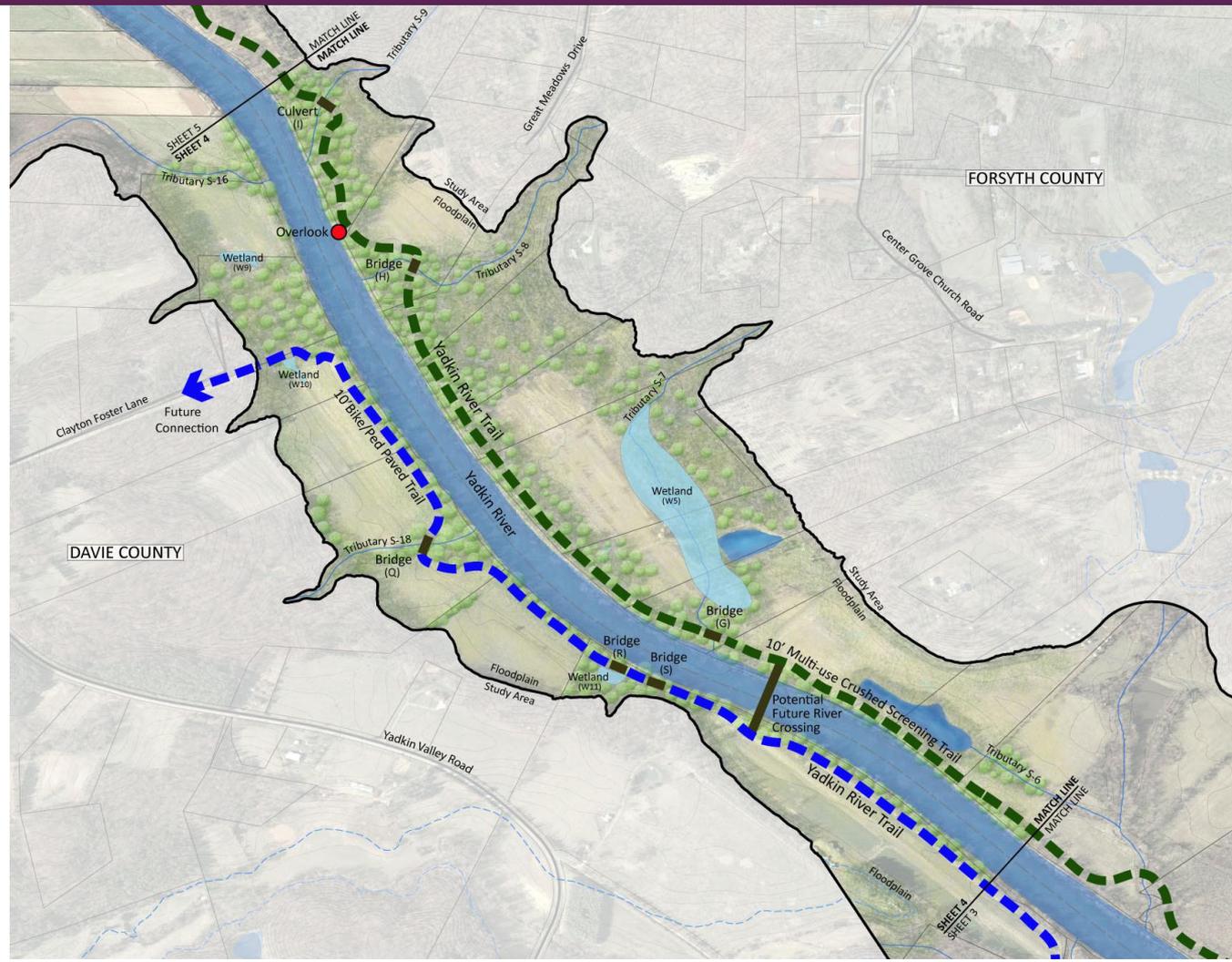
Section 4 - West



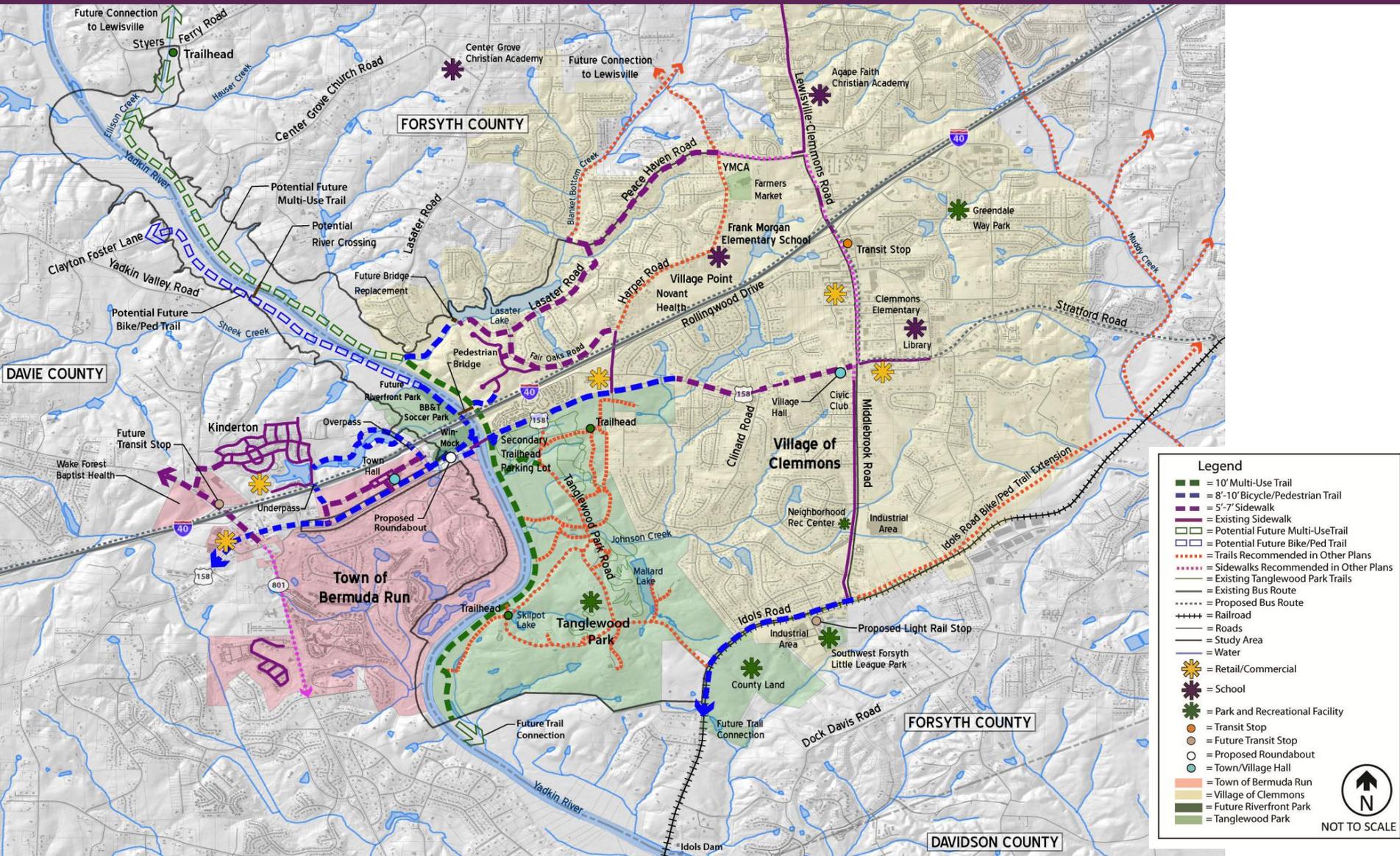
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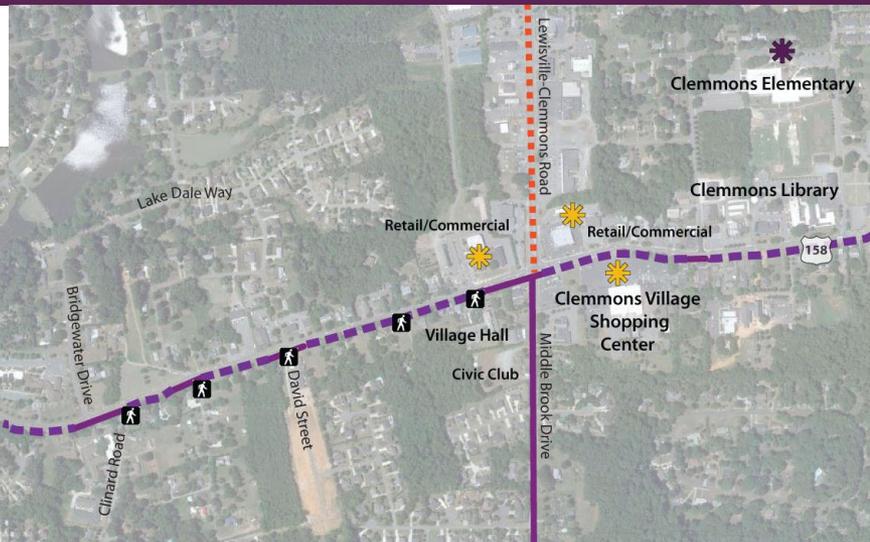
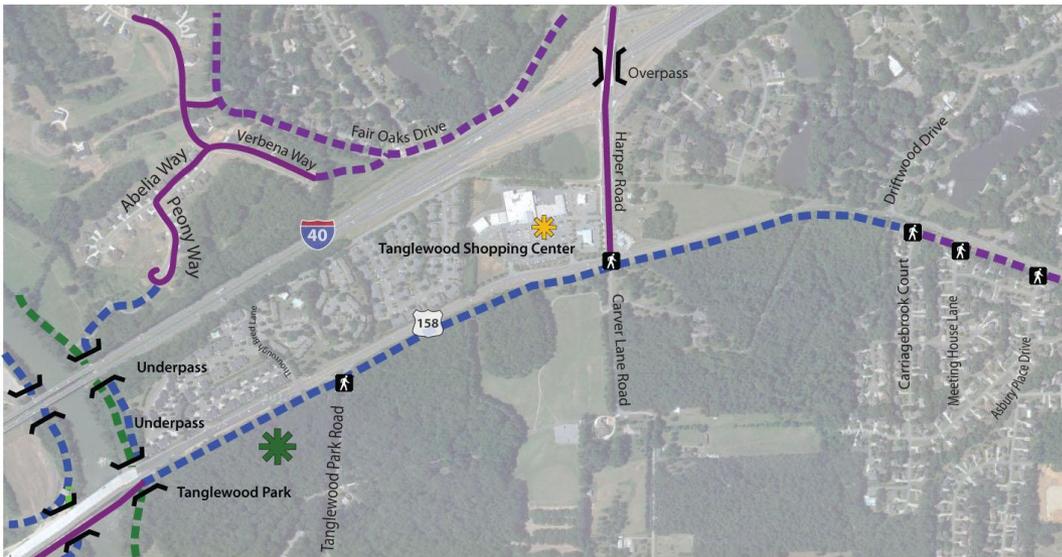
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Recommendations for Greenways and Sidewalks



US 158 Trail/Sidewalk (East)



- Connectivity:**
- Shopping/Commercial areas
 - Municipal buildings
 - Yadkin River Trail
 - Residential areas
 - Parks

Legend

- = Proposed Multi-Use Trail
- = Proposed Sidewalk
- = Existing Sidewalk
- = 8'-10' Bike/Ped Trail
- = Trails Recommended in Other Plans
- = Sidewalk Recommended in Other Plans
- 🚶 = Pedestrian Crosswalk
- ☀️ = Retail/Commercial
- 🌳 = Park/Open Space
- 🎓 = Schools

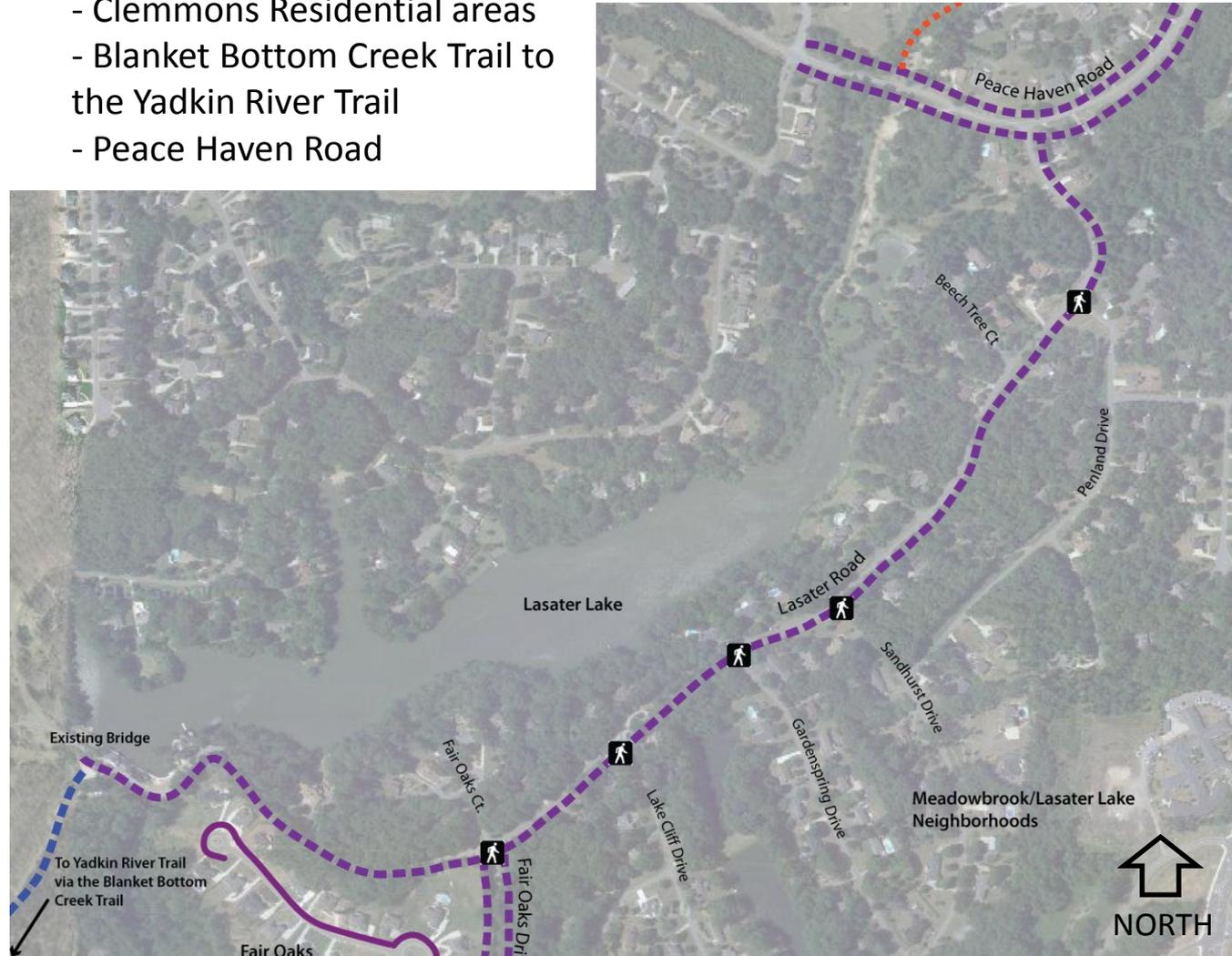
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Lasater Road Sidewalk

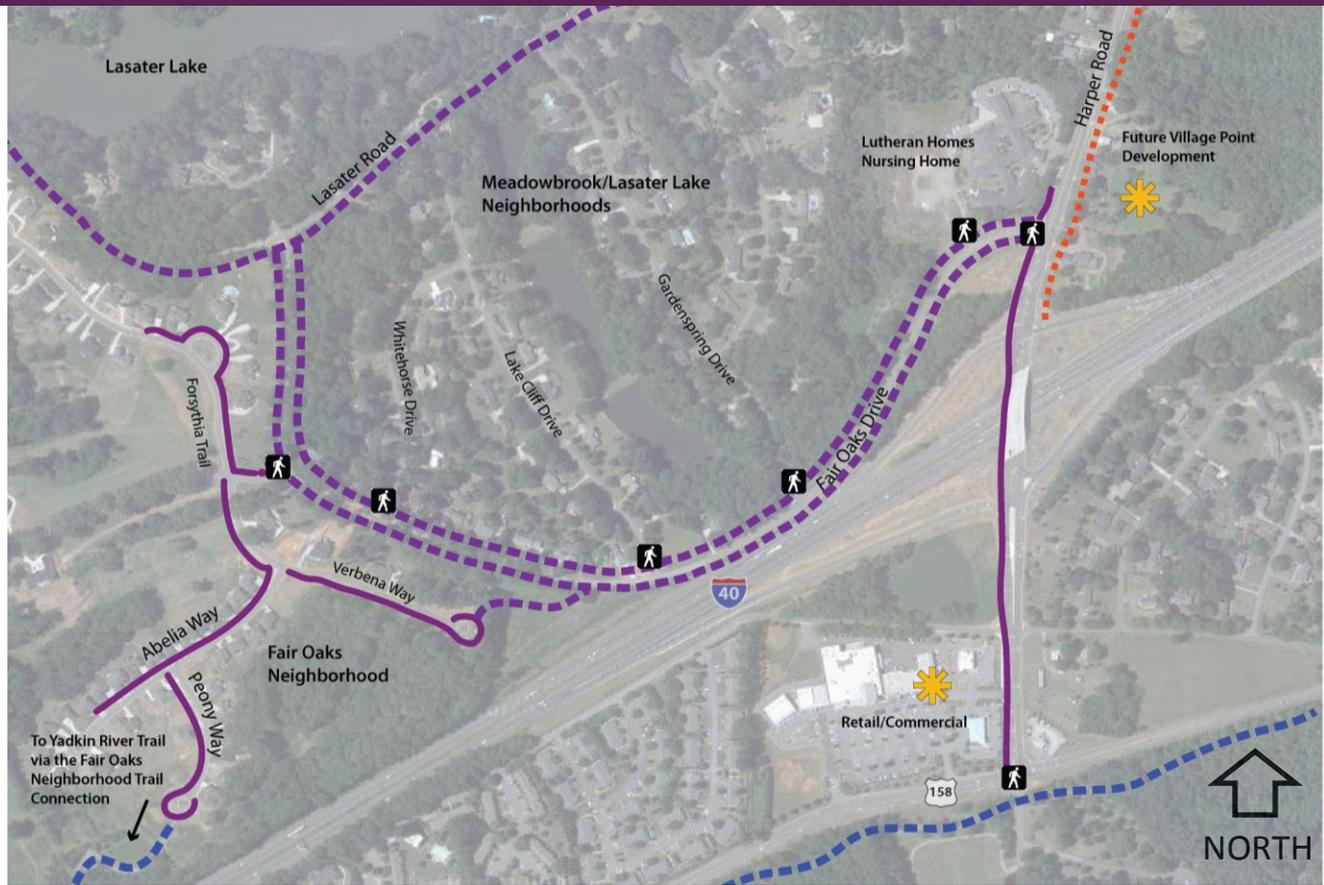
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- = Retail/Commercial
- = Park/Open Space
- = Schools

- Connectivity:**
- Clemmons Residential areas
 - Blanket Bottom Creek Trail to the Yadkin River Trail
 - Peace Haven Road



Fair Oaks Neighborhood Trail



Legend	
	= Proposed Multi-Use Trail
	= Proposed Sidewalk
	= Existing Sidewalk
	= 8'-10' Bike/Ped Trail
	= Trails Recommended in Other Plans
	= Sidewalk Recommended in Other Plans
	= Pedestrian Crosswalk
	= Retail/Commercial
	= Park/Open Space
	= Schools



Connectivity:

- Clemmons Residential areas
- Village Point
- Fair Oaks Neighborhood Trail to the Yadkin River Trail
- Lasater Road, Harper Road

Peace Haven Road Sidewalk



Legend

- = Proposed Multi-Use Trail
- = Proposed Sidewalk
- = Existing Sidewalk
- = 8'-10' Bike/Ped Trail
- = Trails Recommended in Other Plans
- = Sidewalk Recommended in Other Plans
- = Pedestrian Crosswalk
- = Retail/Commercial
- = Park/Open Space
- = Schools



Connectivity:

- Residential areas
- New development
- Blanket Bottom Creek Trail
- YMCA, Future connection to Lewisville Greenways

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Idols Road Trail



Legend	
	= Proposed Multi-Use Trail
	= Proposed Sidewalk
	= Existing Sidewalk
	= 8'-10' Bike/Ped Trail
	= Trails Recommended in Other Plans
	= Sidewalk Recommended in Other Plans
	= Pedestrian Crosswalk
	= Retail/Commercial
	= Park/Open Space
	= Schools

- Connectivity:
- Tanglewood park
 - Middlebrook Drive Residential and industrial areas
 - Southwest Forsyth Little League
 - Idols Dam
 - Proposed light rail stop

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Phasing Plan – Overall Plan and Costs

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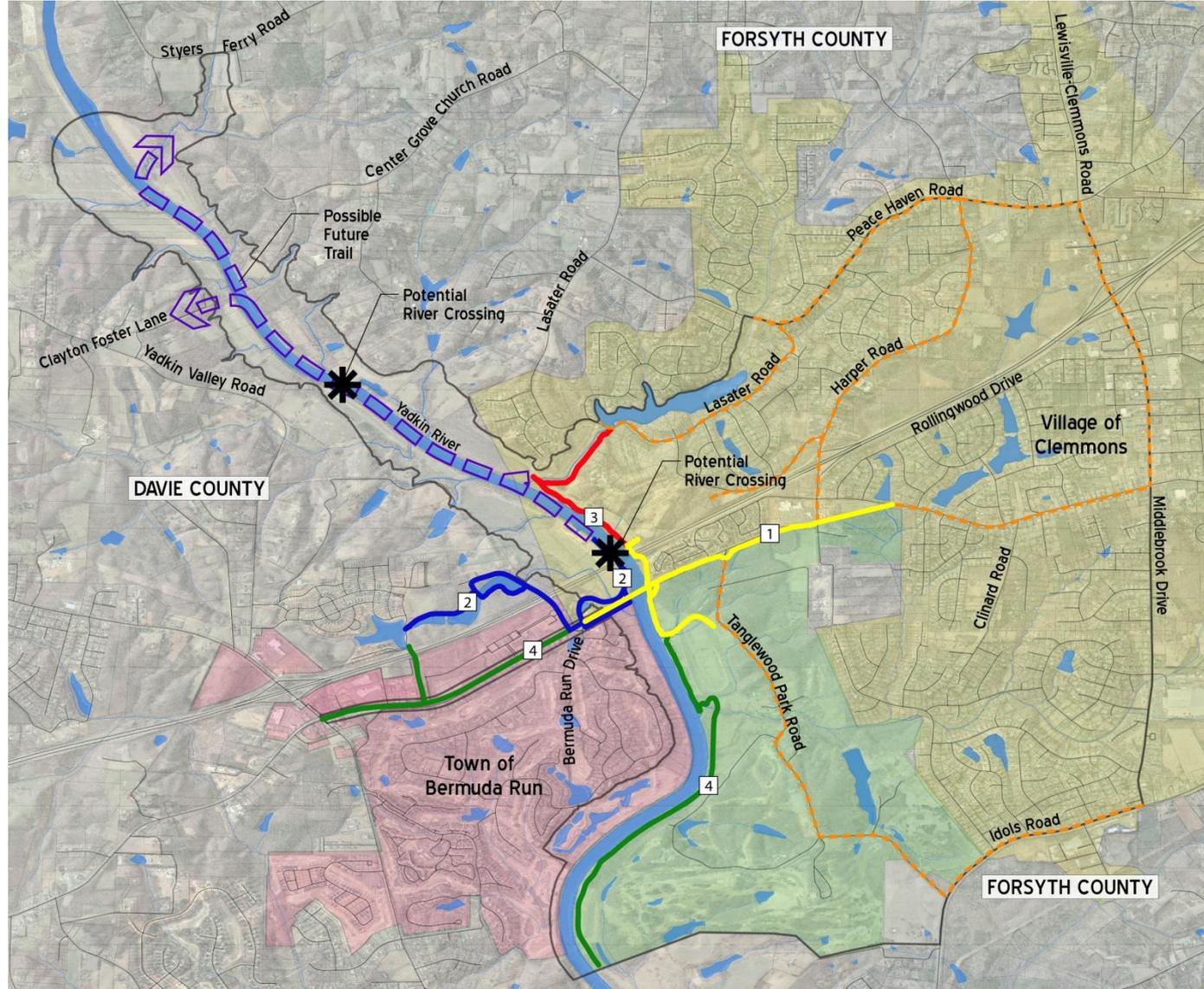
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- █ = PHASE TWO
- █ = PHASE THREE
- █ = PHASE FOUR
- - - = FUTURE PROPOSED TRAILS
- ▭ = POSSIBLE FUTURE TRAIL
- ✱ = POTENTIAL RIVER CROSSING
- = VILLAGE OF CLEMMONS
- = TOWN OF BERMUDA RUN
- = TANGLEWOOD PARK
- = ROADS
- = PARCELS
- = WATER



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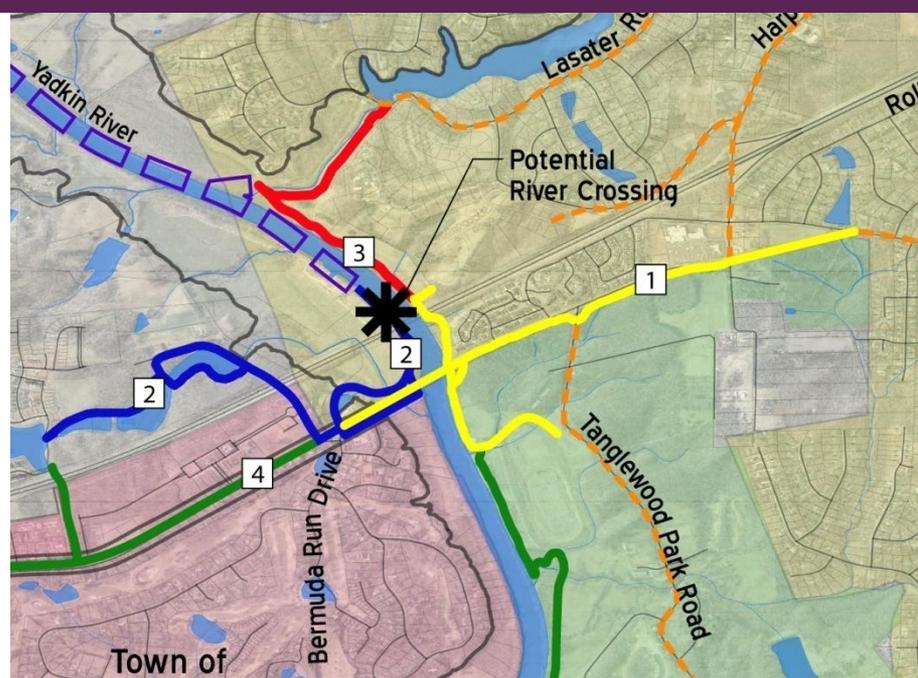
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Phase 1:	\$1,587,000
Phase 2:	\$1,185,000
Phase 3:	\$515,000
Phase 4:	\$1,059,000
Future:	\$9,203,000
<hr/>	
Total:	\$13,549,000



Phase One – Map and Costs

Phase One Cost Estimate		
Quantity	Description of Work	Cost
	Clearing and Grubbing	\$75,000
	Grading	\$122,000
	Erosion Control	\$50,000
	Stormwater/BMP/Rain Garden	\$80,000
1	Primary Trailhead - (Parking, Shelter with Restroom, Signage, Lighting, Site Amenities, Public Art)	\$375,000
3	Secondary Trailheads - (Signage, Site Amenities)	\$30,000
1	Overlook - (Railings, Site Amenities, Signage, Paving)	\$10,000
14,700 LF	10' Bike/Ped Asphalt Trail	\$441,000
3	Crosswalks with Curbcut	\$9,000
	Site Amenities - (Benches, Trash, Recycling, Bollards)	\$45,000
	Retaining Walls	\$75,000
	Handrails	\$10,000
	Interpretive Signs	\$5,000
	Planting	\$100,000
2	Stream Crossings (Pedestrian Bridges)	\$160,000
Total Phase One Construction Cost:		\$1,587,000



LEGEND

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- = ROADS
- = PARCELS
- = WATER

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Implementation

- Determine the appropriate management entity
- Gain public support
- Obtain property
- Planning and permitting
- Prepare construction documents
- Build the project
- Maintain and operate



Next steps

- Five Public presentations to:
 - Village of Clemmons Council
 - Winston-Salem Urban Area Metropolitan Transportation Planning Advisory Committee
 - Bermuda Run Town Council
 - Forsyth County Commissioners
 - Lewisville Town Council
- Finalize Draft Feasibility Study



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Thank you!