

Update on Drinking Water Projects *to be completed by the* RWSA in the Fontaine Ave Area



Ragged Mountain Reservoir

Presented to the LUEPC

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February 21, 2025



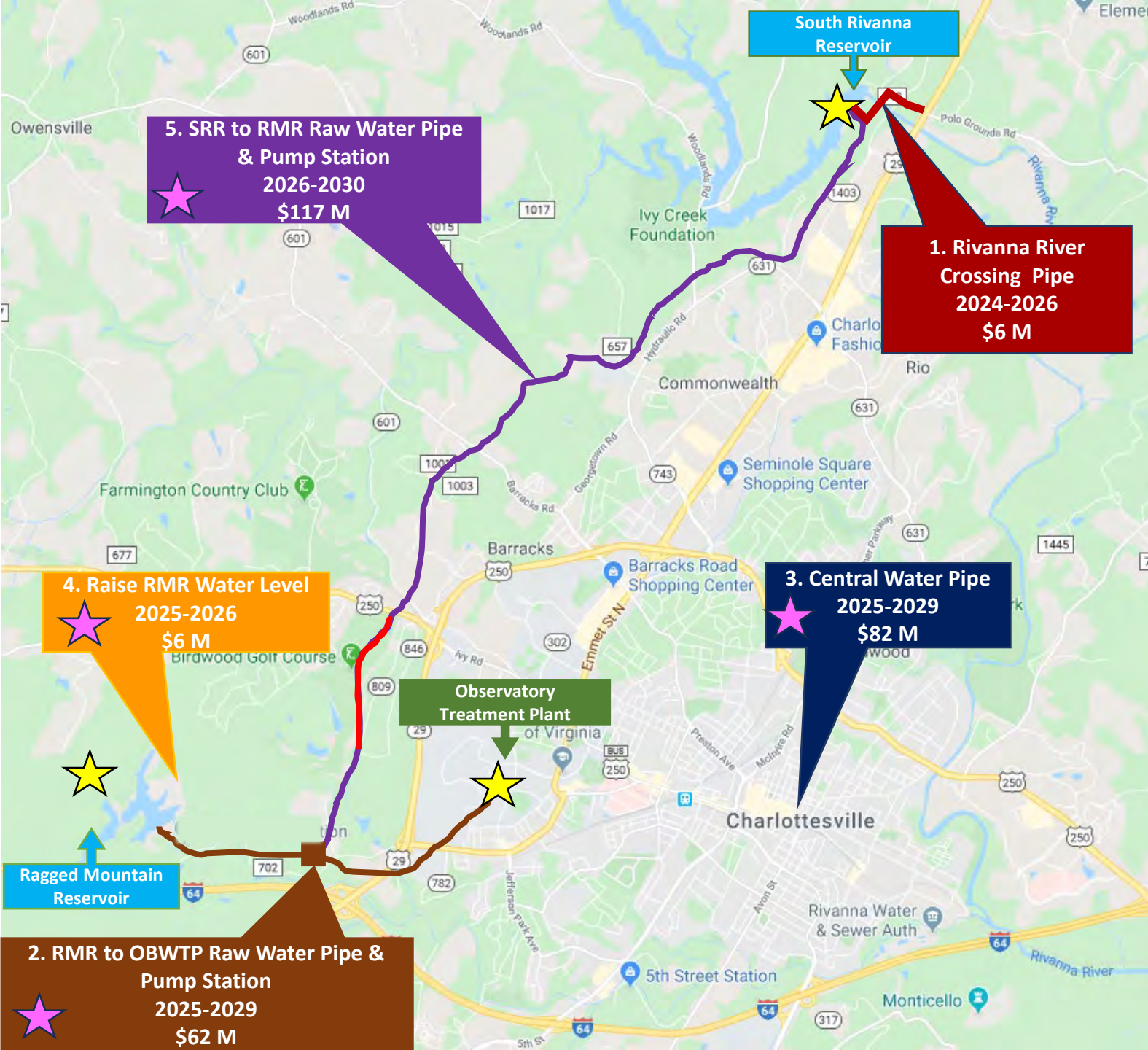
Background

- Following an 18-month “drought of record” in 2002, the community completed a plan in 2012 to increase the public water supply.
- The ACSA, City and RWSA have made significant investments in water supply and treatment facilities since 2012.

~ *New Ragged Mtn Reservoir Dam in 2014*

~ *Renovation of the Observatory and S. Rivanna WTPs in 2024*





Water Supply, Quality & Resilience Projects

(February 7, 2025)

Total Project Cost

1. Rivanna River Crossing Pipe 2024-2026: <i>Awarded June 2024</i> 100% ACSA	\$6 M
2. RMR to OBWTP Raw Water Pipe & Pump Station 2025-2029: <i>Awarded Oct 2024</i> Pipe: 80% ACSA / 20% City PS: 72% ACSA / 28% City	\$62 M
3. Central Water Pipe, Ph 1 & 2 2025-2029: <i>Award May 2025</i> 52% ACSA / 48% City	\$82 M
4. Raise RMR Water Level 2025-2026: <i>Award June 2025</i> 80% ACSA / 20% City	\$6 M
5. SRR to RMR Raw Water Pipe 2026-2030: <i>Award Jan 2026</i> 80% ACSA / 20% City	\$117 M
6. SRR Aeration & RMR HLOS 2028-2030: <i>Award Jan 2028</i> 52% ACSA / 48% City	\$9 M

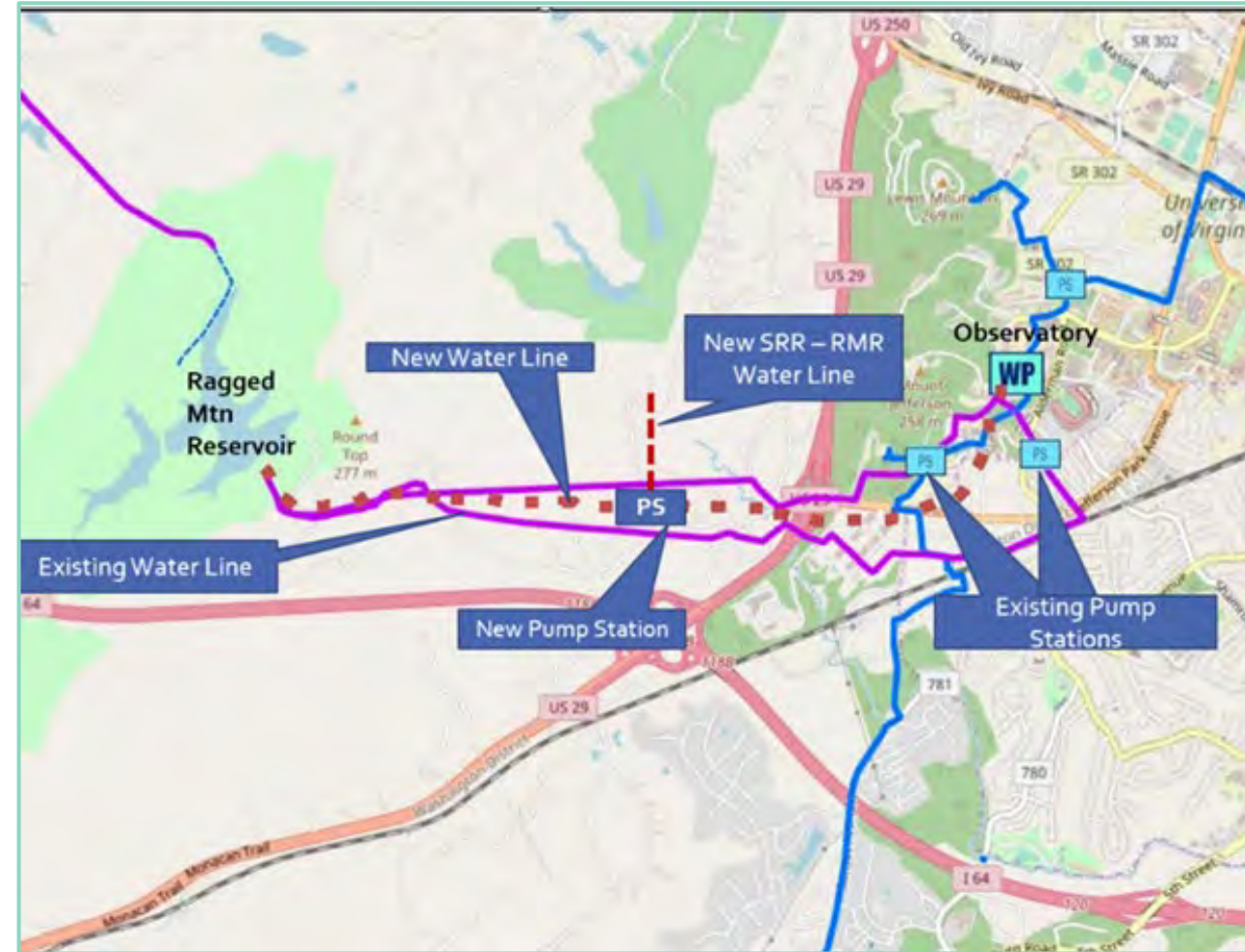
ACSA	\$191 M	\$282 M
City Utilities	\$91 M	

RMR to OBWTP Watermain: 21,000 LF



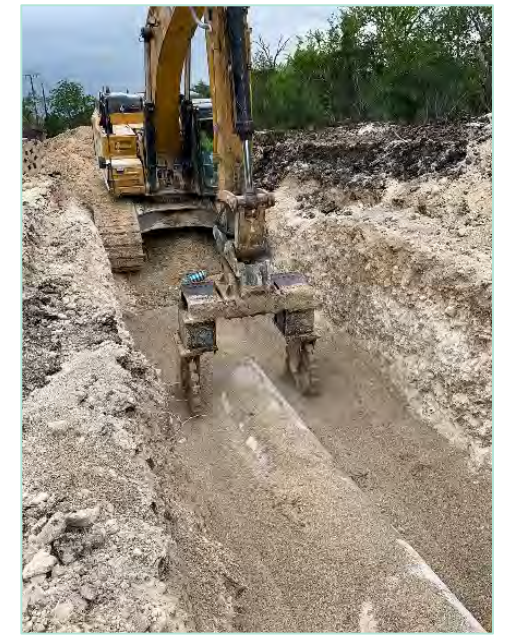
Project Summary

- Purpose: Convey water from the Ragged Mtn Reservoir to the Observatory Water Treatment Plant
- Scope: Construct 4 miles of 36" underground piping and a 4,820 SF masonry water pumping station
- Contractor: Thalle Construction, Hillsborough, NC
- Schedule: February 2025 – July 2029
- Total Project Cost: \$62 M
- Funding: Bonds issued by RWSA with support from the public drinking water customers of the Albemarle County Service Authority and the City Utilities Department



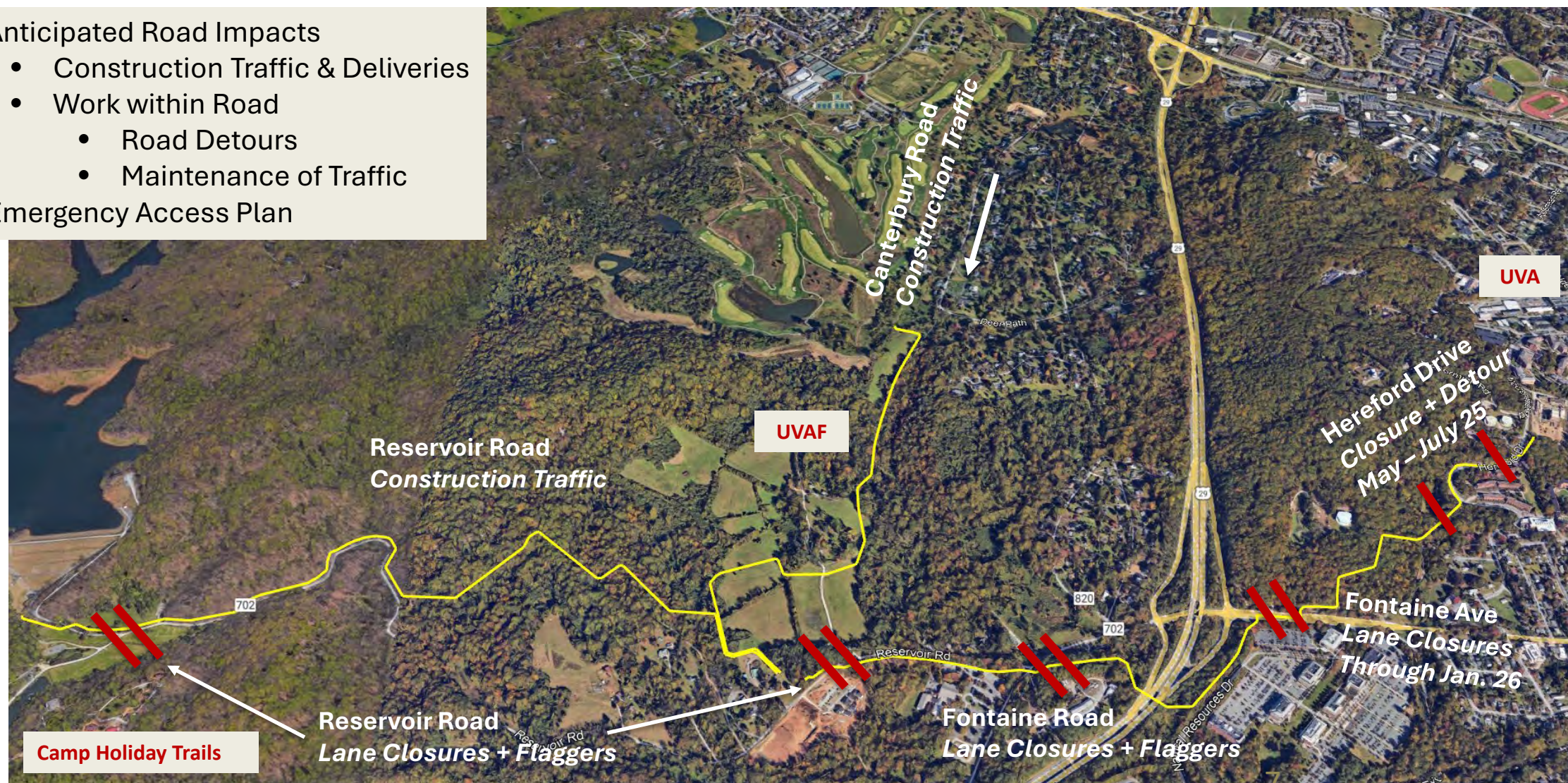
Overview of Construction Activities

- Clearing and Grubbing
 - Removal of trees, shrubs, other vegetation
 - Provide a clear and stable area for construction
- Open Trench Pipe Installation
 - Excavate trench
 - Install pipe
 - Fill trench with soil, compact to prevent settling
- Jack and Bore Pipe Installation (*under Route 29*)
 - Excavate bore pits
 - Jack to push a drill bit through the ground to create a hole
 - Pull pipe through the hole



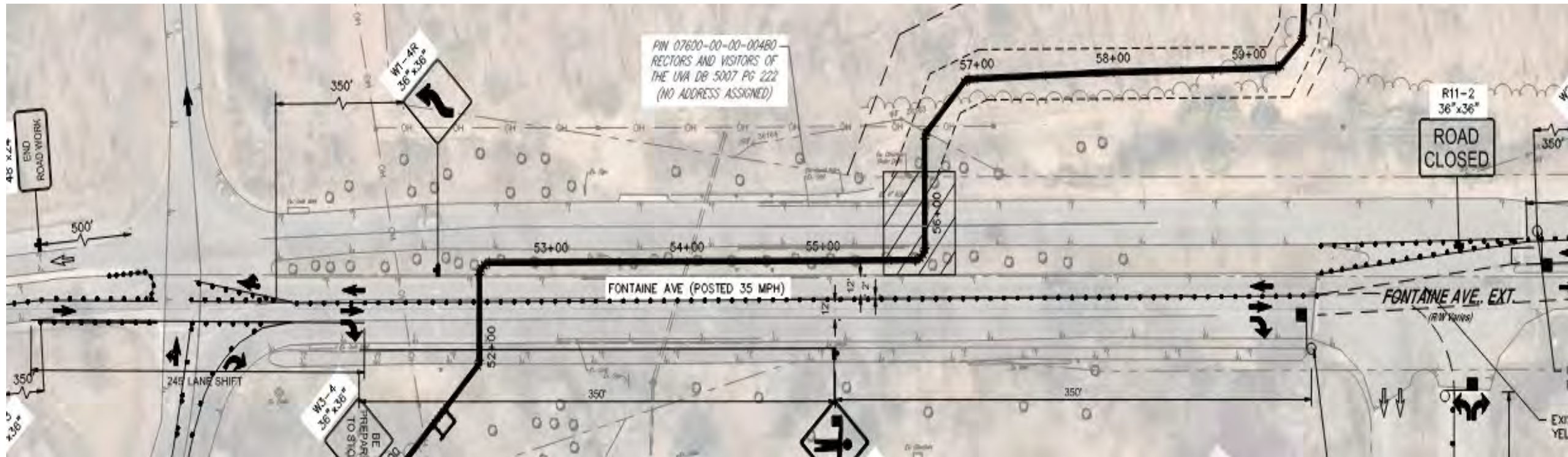
Access: Construction Traffic + Road Closures + Detours

- Anticipated Road Impacts
 - Construction Traffic & Deliveries
 - Work within Road
 - Road Detours
 - Maintenance of Traffic
- Emergency Access Plan

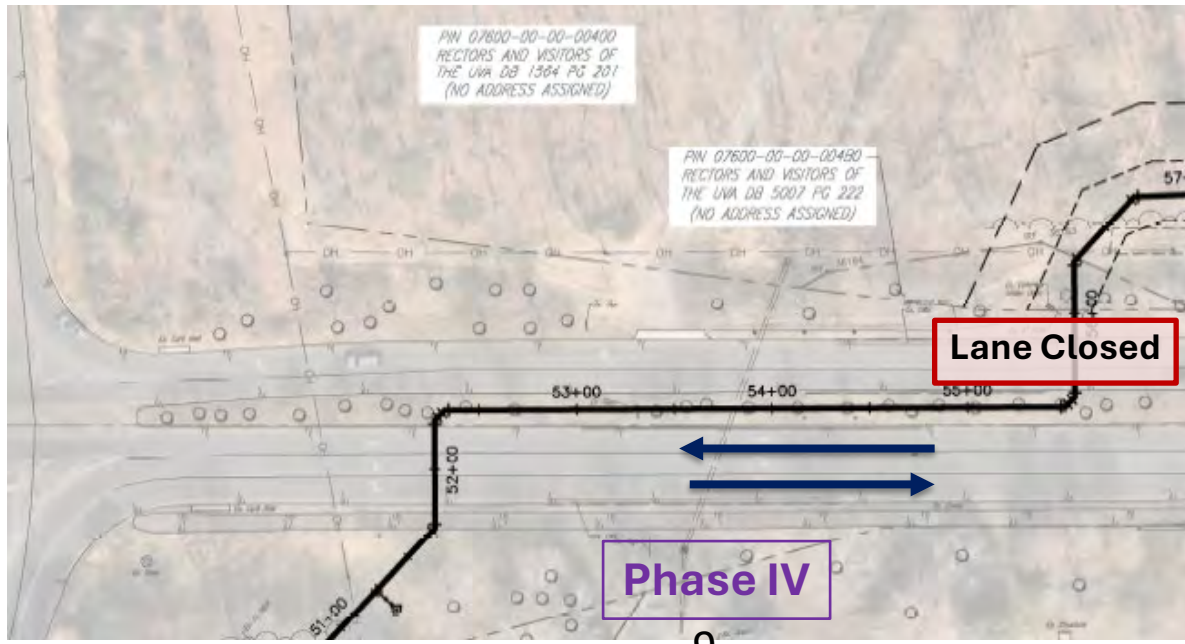
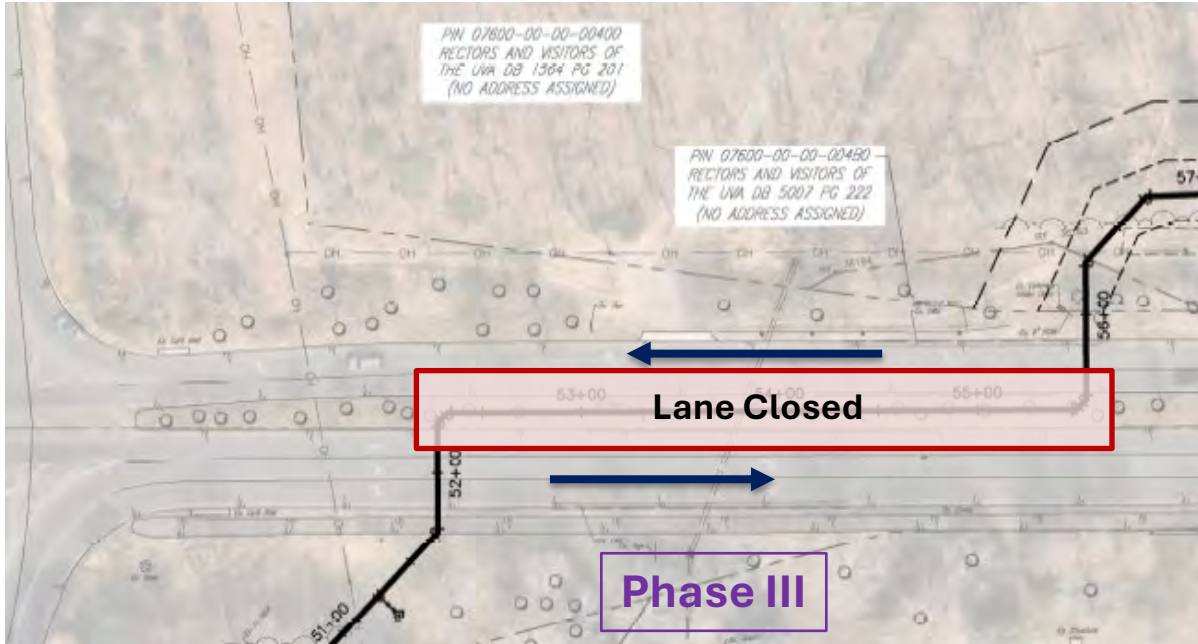
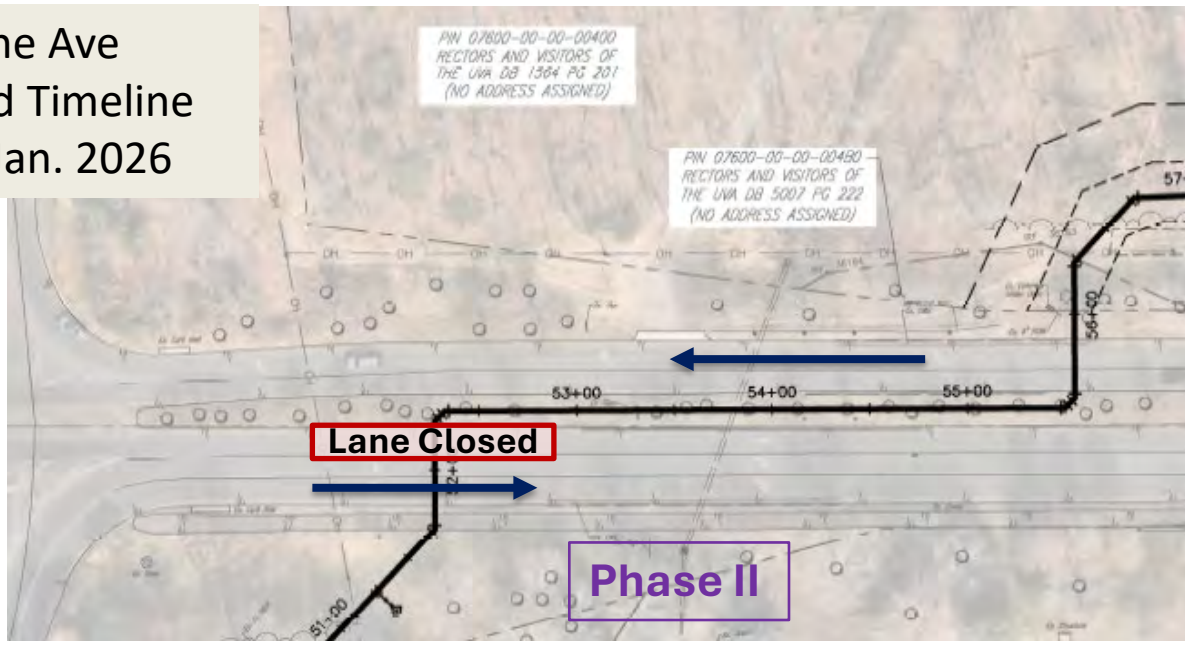
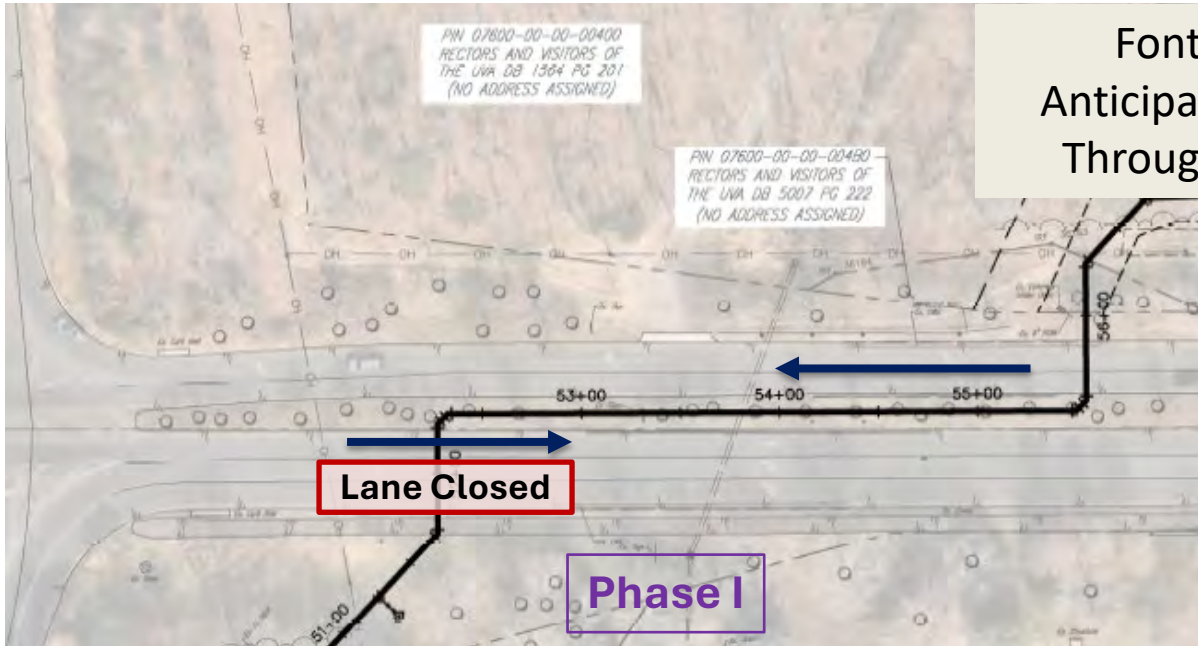


RMR to OBWTP Watermain: 21,000 LF

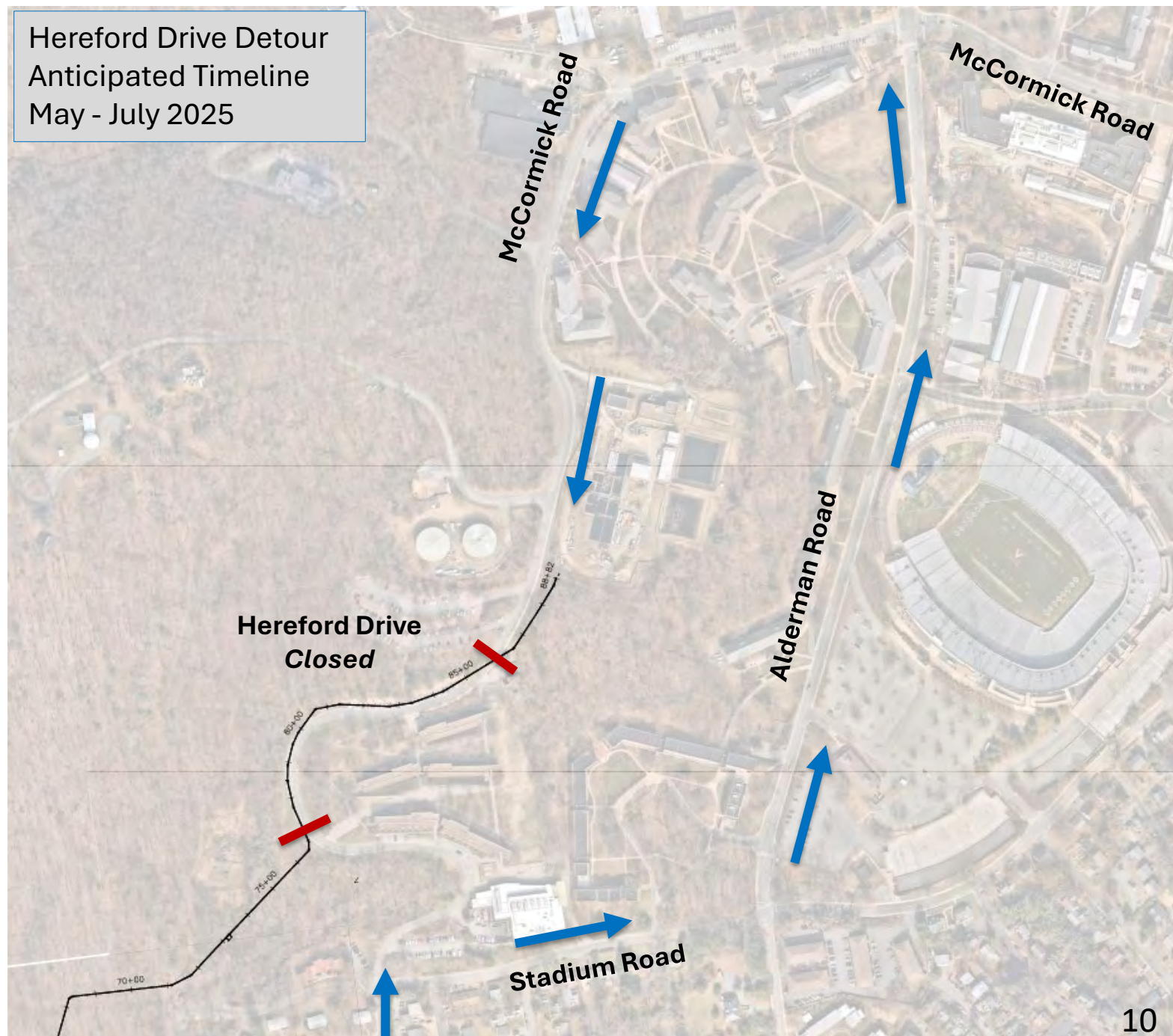
- Rt. 29 Trenchless Xing
- Fontaine Avenue, 4-Phases MOT
- April – January 2026



Fontaine Ave
Anticipated Timeline
Through Jan. 2026



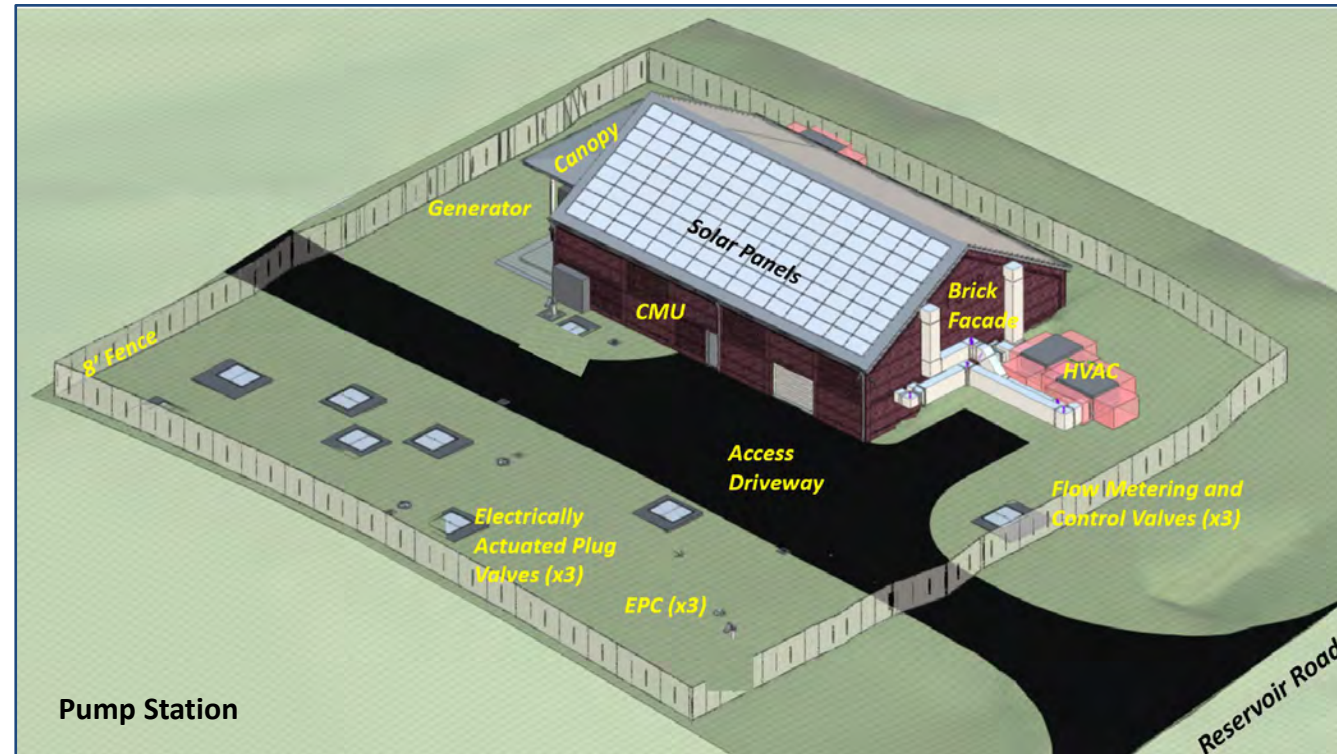
Hereford Drive Detour
Anticipated Timeline
May - July 2025



Ragged Mtn Reservoir to Observatory Water Treatment Plant – Water Line and Pump Station (2025 – 2029)

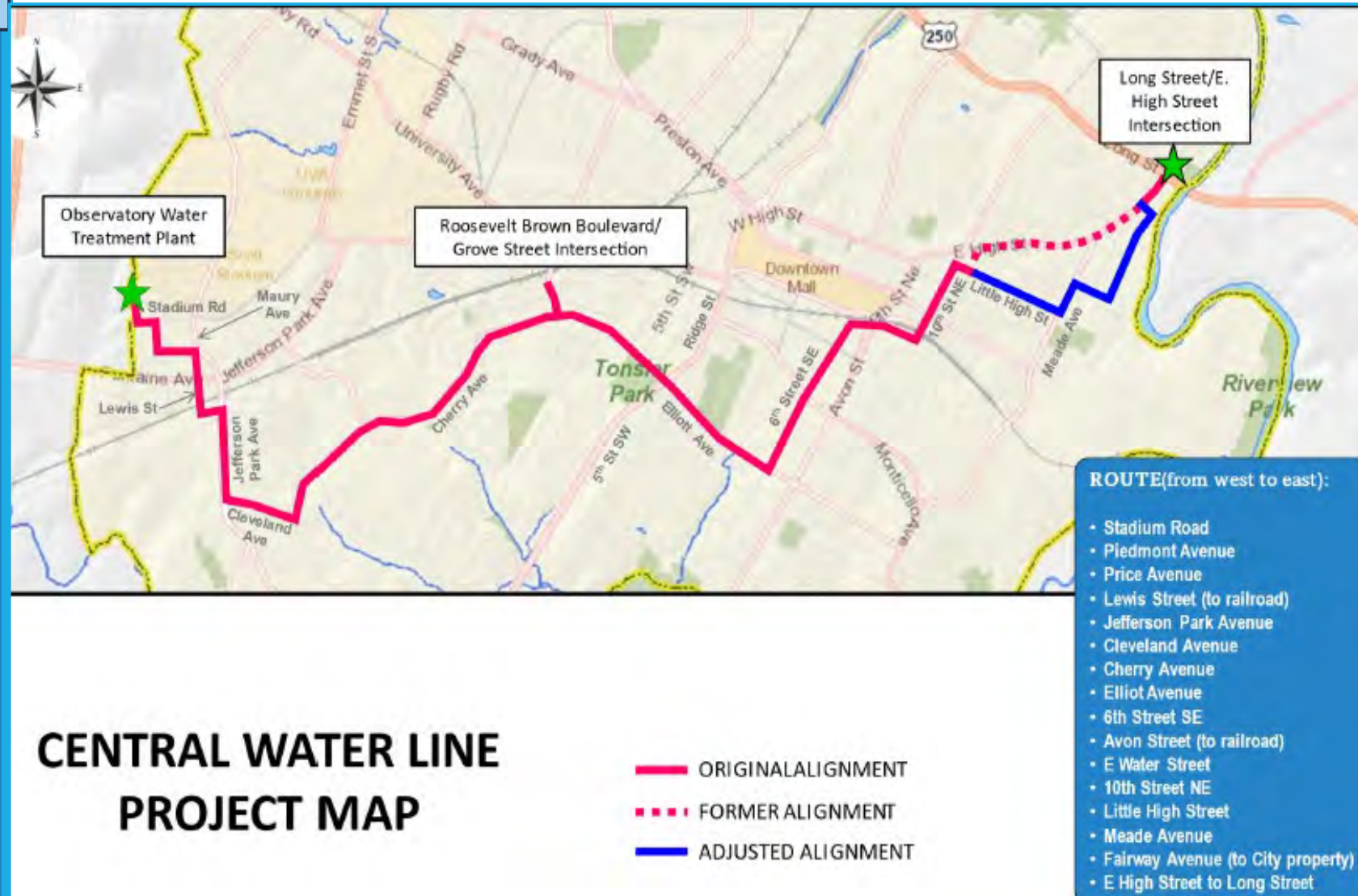
- Construct 10 mgd raw water pump station
- Located on approx. 1.2-acre site on Reservoir Rd
- 4,820 SF climate-controlled building
- Replaces outdated infrastructure – 40- and 70-year-old pump stations
- Improves raw water conveyance capacity to OBWTP

*Designed to Transfer up to 26 MGD
From SFRR to RMR and/or OBWTP
From RMR to SRWTP and/or OBWTP*



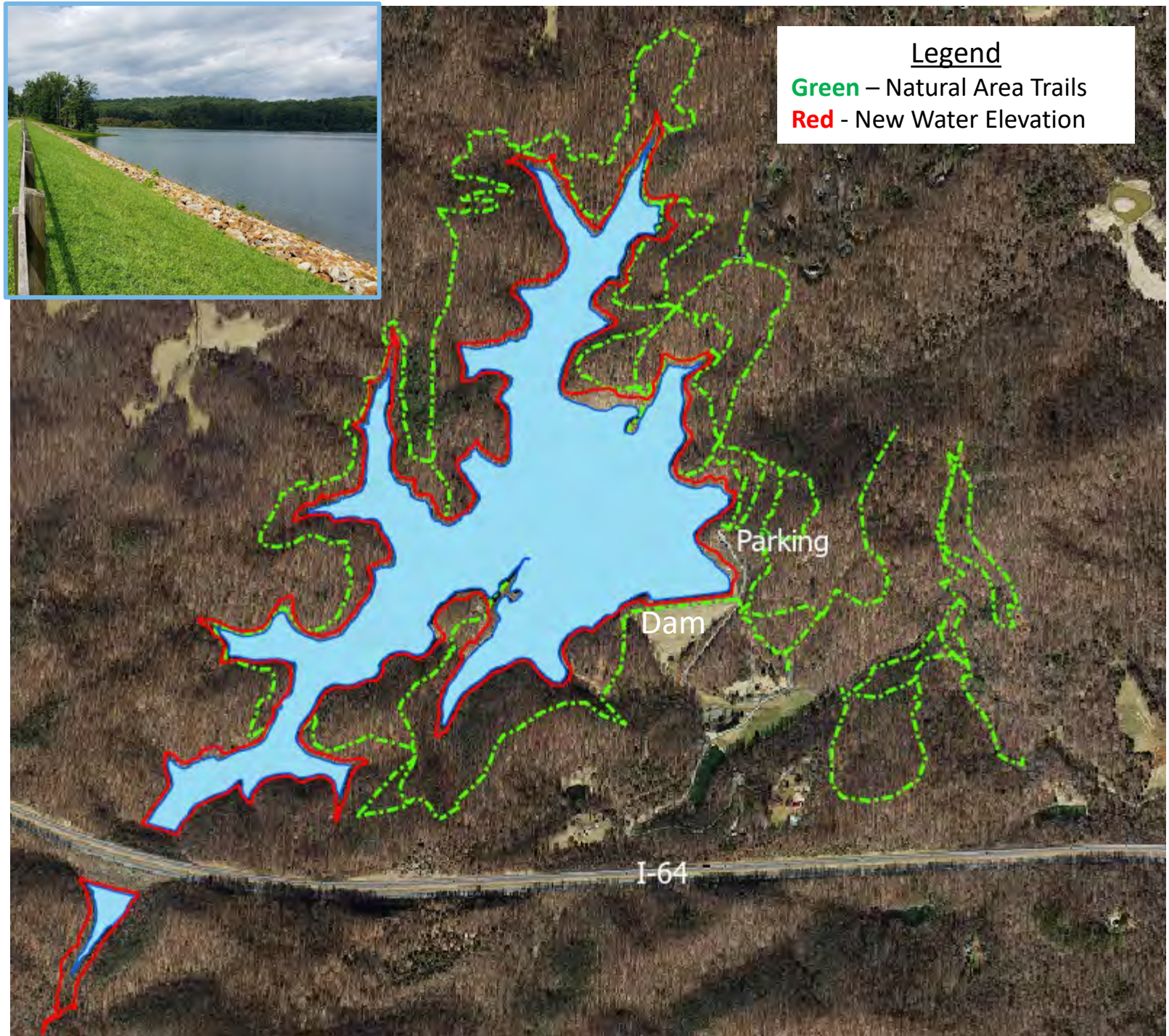
Central Water Line

- 5 miles of 24 & 36-inch treated water piping
- More efficiently convey drinking water, improve redundancy, and generally strengthen the Urban Area Drinking Water System
- Completion: 2025 -2029
- Budget: \$82 M



Raise Ragged Mountain Reservoir Water Level

- Raise Pool Level: 12 feet
 - Elevation 671' to 683'
- Capacity Increase: 700 MG
- Total Capacity: 2.1 BG
- Construction: 2025 – 2026
- Cost: \$6 M





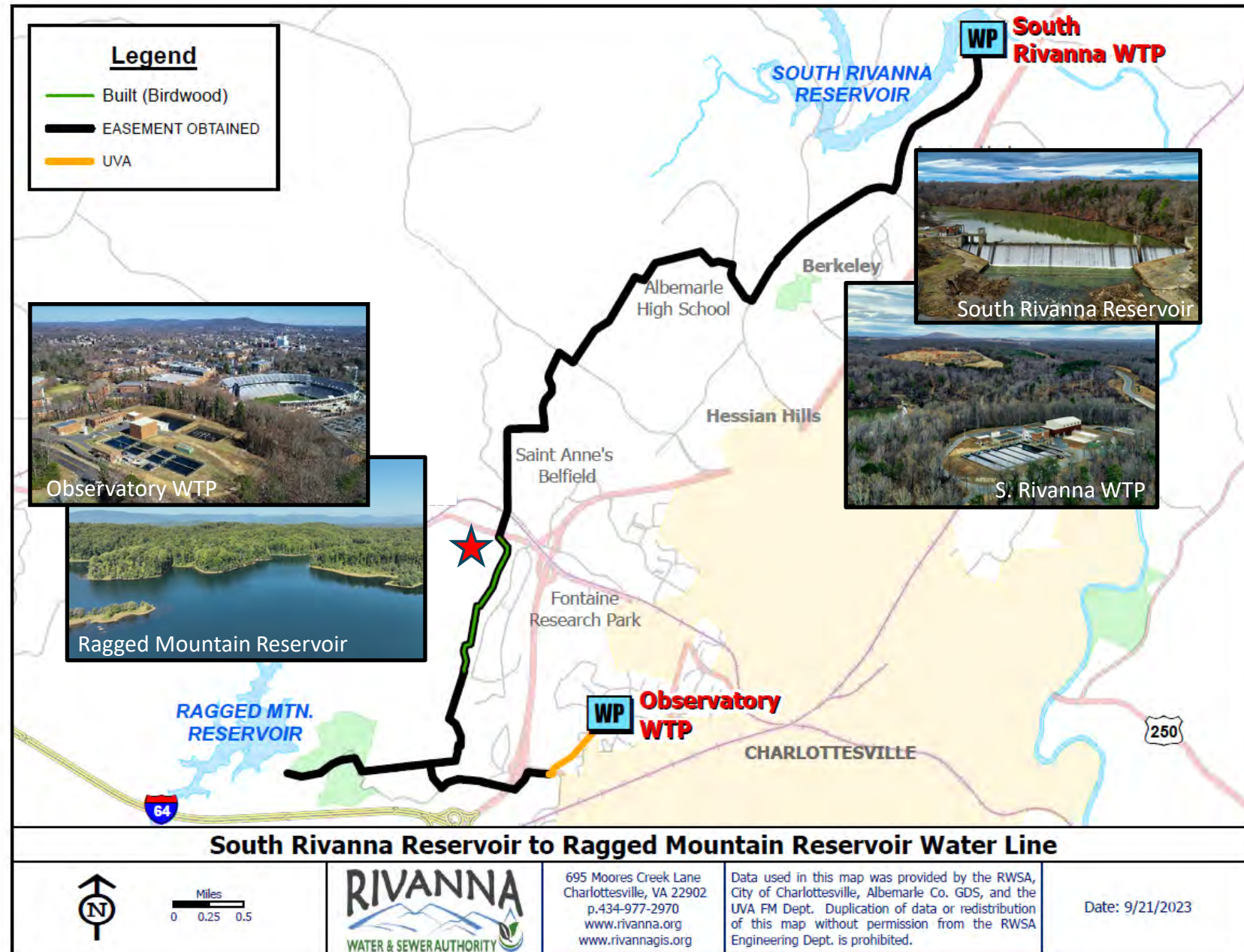
pool level 683

intake tower

Ragged Mountain Dam and Reservoir

Rivanna Reservoir to Ragged Mtn Reservoir Intake, Pumping & Pipeline

- 7 miles of 36-in raw water piping from SRR to Birdwood
- 26 mgd transfer capacity
- Raw water pump station and intake on SRR
- Completion: 2026 – 2030
- Budget \$117 M



An aerial photograph of a reservoir surrounded by dense green forest. In the foreground, a large, flat, grassy area is visible, with a winding road on the right side. A small, heart-shaped pond is located near the bottom center of the grassy area. The reservoir is in the background, with a small island in the middle. The text "Questions?" is overlaid in the center of the grassy area.

Questions?

Ragged Mountain Reservoir



Thank you!!