



695 Moores Creek Lane
Charlottesville, Virginia 22902-9016

434.977.2970

434.293.8858

www.rivanna.org



Write to us! Scan the QR code or visit our website.

Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Line and Pump Station

In 2002, the Central Virginia Region experienced a historical drought of record. This drought and the water supply needs of the Charlottesville/Albemarle region sparked a decade-long water supply planning process (2002-2012). The community evaluated future water needs and developed the Community Water Supply Plan, which was approved in 2012. The plan calls for several infrastructure projects and upgrades to secure the water supply for the Charlottesville/Albemarle area.

A detailed routing study for the South Fork Rivanna Reservoir (SFRR) to Ragged Mountain Reservoir (RMR) Raw Water Line, including the section between Ragged Mountain Reservoir and Observatory Water Treatment Plant (OBWTP), was completed between 2017 and 2021. Easement acquisition occurred concurrently with the routing study and was completed in September 2024.

May 2025 Update

The Contractor continues the chipping/mulching of felled trees along the pipeline alignment. The Contractor plans to begin the pipeline installation on May 27th. Construction will start near the Observatory Water Treatment Plant on Hereford Drive. During this phase, Hereford Drive will not be accessible between the UVA Dormitories and Observatory Water Treatment Plant. A detour will be established at the three-way intersection of Herford Drive, Stadium Road, and Mimosa Drive, enabling traffic to circumvent the area using Stadium Road, Alderman Road, and McCormick Road. The closure is expected to last through July 31st.

Overview

The Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Line and Pump Station Project is a critical component of the South Fork Rivanna Reservoir to Ragged Mountain Reservoir pipeline and Community Water Supply Plan. Not only will this new water line and pump station integrate with the South Fork Rivanna Reservoir to Ragged Mountain Reservoir Pipeline, but it will also serve to replace rapidly aging raw water transfer infrastructure to the Observatory Water Treatment Plant and help to take full advantage of capacity upgrades that were recently completed at that facility. The full capacity of Observatory Water Treatment Plant will be able to be realized once the Ragged Mountain Reservoir to Observatory Water Treatment Plant Pipeline and Pump Station are completed, and the Central Waterline is completed under a future, separate project.

Details

The Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Line will span approximately 4 miles, between Ragged Mountain Reservoir and Observatory Water Treatment Plant, including a spur-piece of piping that will be installed on the Foxhaven Farm property, connecting the Ragged Mountain Raw Water Pump Station (RMRWPS) to the Southern end of the previously installed raw water line under the Birdwood Golf Course. All piping installed will be 36-inch in diameter, and the Ragged Mountain Raw Water Pump Station will have the capacity to initially transfer up to 10 million gallons per day (MGD) of raw water from Ragged Mountain Reservoir to Observatory Water Treatment Plant. Once the South Fork Rivanna Reservoir to Ragged Mountain Reservoir pipeline is complete and additional pumps are installed, the Ragged Mountain Raw Water Pump Station will also be capable of transferring 16 million gallons per day from the Ragged Mountain Reservoir to the South

Rivanna Water Treatment Plant (SRWTP), as well as assist with the transfer of 25 million gallons per day of raw water from South Fork Rivanna Reservoir to Ragged Mountain Reservoir and/or Observatory Water Treatment Plant. The Ragged Mountain Reservoir to Observatory Water Treatment Plant raw water line and pump station project has a total project budget of \$61,500,000.

Benefits and Temporary Impacts

- ***Enhanced Dependability of Our Drinking Water System:*** By connecting the South Fork Rivanna Reservoir and the Ragged Mountain Reservoir, as well as the South Rivanna Water Treatment Plant and Observatory Water Treatment Plant, our system will be capable of providing drinking water to the urban area from multiple facilities during periods of uncertain and changing climate conditions and extended droughts or incidents which may impact our water storage or treatment facilities. The new water line will replace the 70-100+ year old water lines which currently supply water to Ragged Mountain Reservoir from the Sugar Hollow Reservoir, as well as from Ragged Mountain Reservoir to Observatory Water Treatment Plant.
- ***Tree Clearing:*** In order to install this large diameter piping, the full easement width (including all temporary and permanent easement areas, generally totaling 60 feet in width) will need to be cleared in order to facilitate heavy equipment access. All cleared areas will be appropriately restored following construction, and temporary stabilization measures will be utilized as needed in between clearing efforts and pipe installation.
- ***Increased Water Supply:*** Completion of the water line and the initial phase of the Ragged Mountain Raw Water Pump Station will allow 10 million gallons per day of raw water to be transferred to the Observatory Water Treatment Plant, helping to take advantage of capacity upgrades at that facility. Previous raw water pumping infrastructure was limited to 7 million gallons per day or less.
- ***Road Impacts:*** The pipe alignment crosses several roadways, including Reservoir Road, Hereford Drive, and Fontaine Avenue Extended. However, in the case of Fontaine Avenue, the work will be performed at night and will be sequenced such that a minimum of one lane remains open at all times. Work on Hereford Drive will be performed while the adjacent UVA dormitories are closed, and any pipe crossings of Reservoir Road will be conducted at night. The Contractor will also be responsible for ensuring that emergency vehicles can pass at all times during the work.
- ***Better for the Environment:*** With the new, bigger water line in place we can provide more water for people, fish, and other wildlife, by rapidly filling Ragged Mountain Reservoir during times of high rainfall and leaving water in the rivers during dry times/droughts.
- ***Trail Impacts:*** The pipeline alignment crosses many high-traffic trails, both on the Foxhaven Farm Property, and on UVA Grounds. The Contractor is responsible for developing a plan to detour trail traffic as necessary and will be working with UVA and UVA Foundation staff to appropriately coordinate any temporary trail closures as the need arises.

Frequently Asked Questions (FAQs)

- Q: How was the route for this project determined?
 - A: A detailed routing study was completed between 2017 and 2021. Easements were procured concurrently with all property owners along the pipeline alignment, and property was purchased for the pump station site.
- Q: How many trees will need to be removed?

- A: All trees within the temporary and permanent easement areas will need to be removed, in order for the full easement width (generally 60') to be available for the Contractor to use, and for the Rivanna Water and Sewer Authority to be able to properly maintain the pipe after installation. All impacted property will be restored at the conclusion work, and if there are any gaps between tree clearing and pipe installation, temporary stabilization measures will be utilized by the Contractor.
- Q: How will traffic be impacted by this work?
 - A: Traffic impacts will generally be limited to nighttime. The only anticipated daytime traffic impacts will be in Hereford Drive on UVA Grounds during the Summer of 2025, but the adjacent UVA dormitories will be closed during this period, and appropriate detours will be established. The pipe crossing of Fontaine Avenue Extended adjacent to the Research Park will be conducted at night and sequenced such that a minimum of one lane remains open at all times. The pipe crossing of the US-29 Expressway will be conducted via a trenchless crossing under the highway, and traffic will not be impacted.
- Q: How will popular trails be impacted by this work?
 - The pipe alignment will cross trails both on the Foxhaven Farm Property and UVA Grounds. Temporary closures and/or detours will be required during construction in these two areas. Rivanna Water and Sewer Authority staff are coordinating with UVA and UVA Foundation staff, and notification of any closures/detours will be provided well in advance. At the conclusion of the work, all trails will be restored to pre-existing conditions, and in the case of trails on UVA Grounds, Rivanna Water and Sewer Authority will be working with UVA to restore ground conditions such that additional trails may be installed in the future.
- Q: How can I contact someone about this project?
 - Please utilize the form located here: [Contact Us - Rivanna Authorities](#)

Schedule

Phase 1 - Route Determination - Complete

Phase 2 - Easement Acquisition - Complete

Phase 3 – Design & Construction

- Bidding has been completed, and the Project has been awarded to Thalle Construction Company, Inc. from Hillsborough, NC. Construction is currently planned to be completed between February 2025 and June 2029.

Other Project Documentation

January 2025 Project Information Meeting Recording: https://zoom.us/rec/share/_rk0IeX-8efUqhihnRrpBaC7rJU38R-uvwVeOcVYXYhE7lVT3rX9sOYRhgKEdpjn.vyKdnVMmIm8mkh4R

[January 2025 Project Information Meeting Slides:](#)

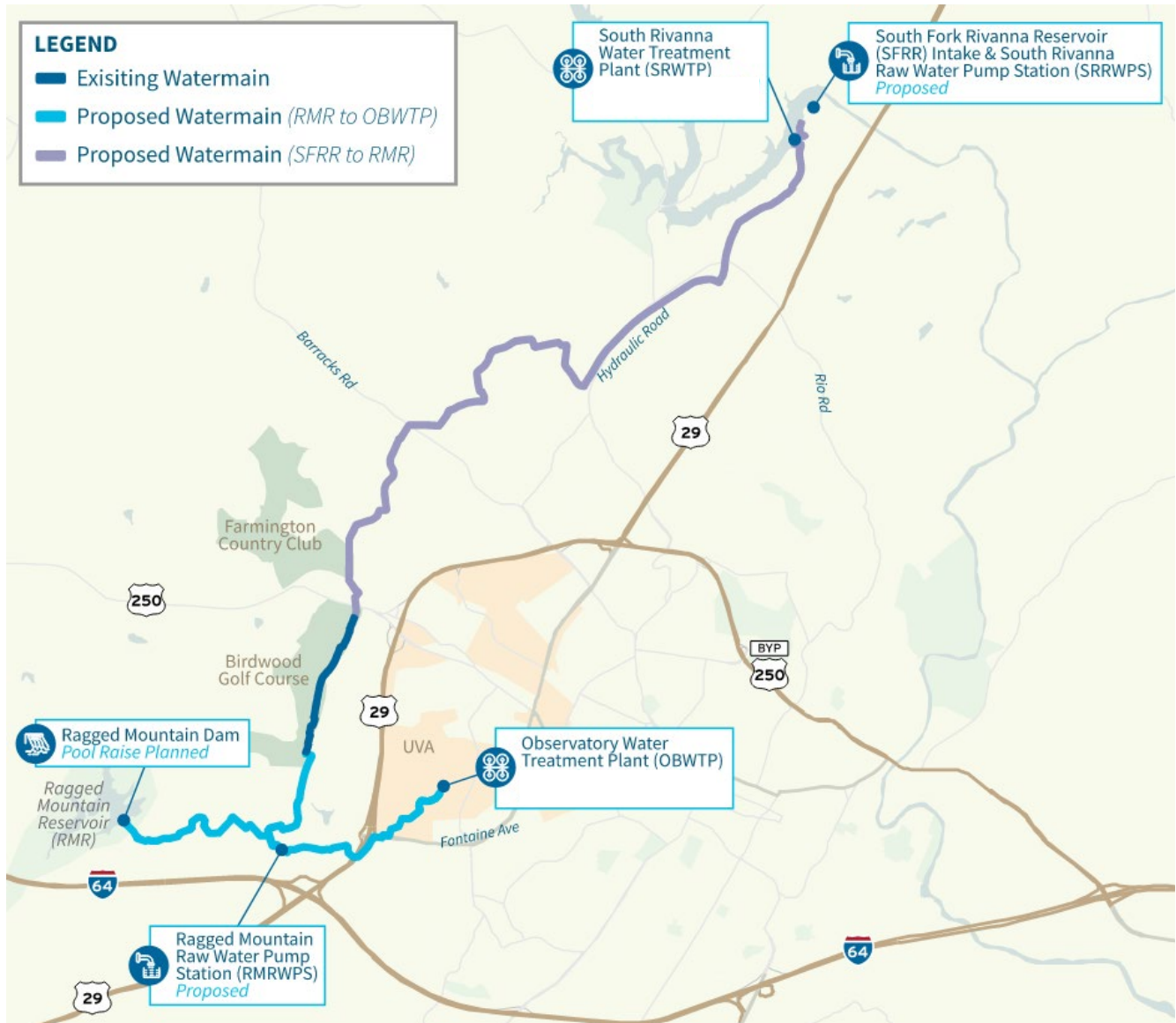
Previous Updates

April 2025: The Contractor is currently focusing on the chipping/mulching of felled trees along the pipeline alignment. This will remain a priority for the next several weeks. In addition, the Contractor will soon begin grading the pump station site, installing temporary restoration measures along the pipeline alignment, and test drilling for rock near Hereford Drive and the Observatory Water Treatment Plant. Pipeline installation is scheduled to begin in late May, initially in the Hereford Drive corridor.

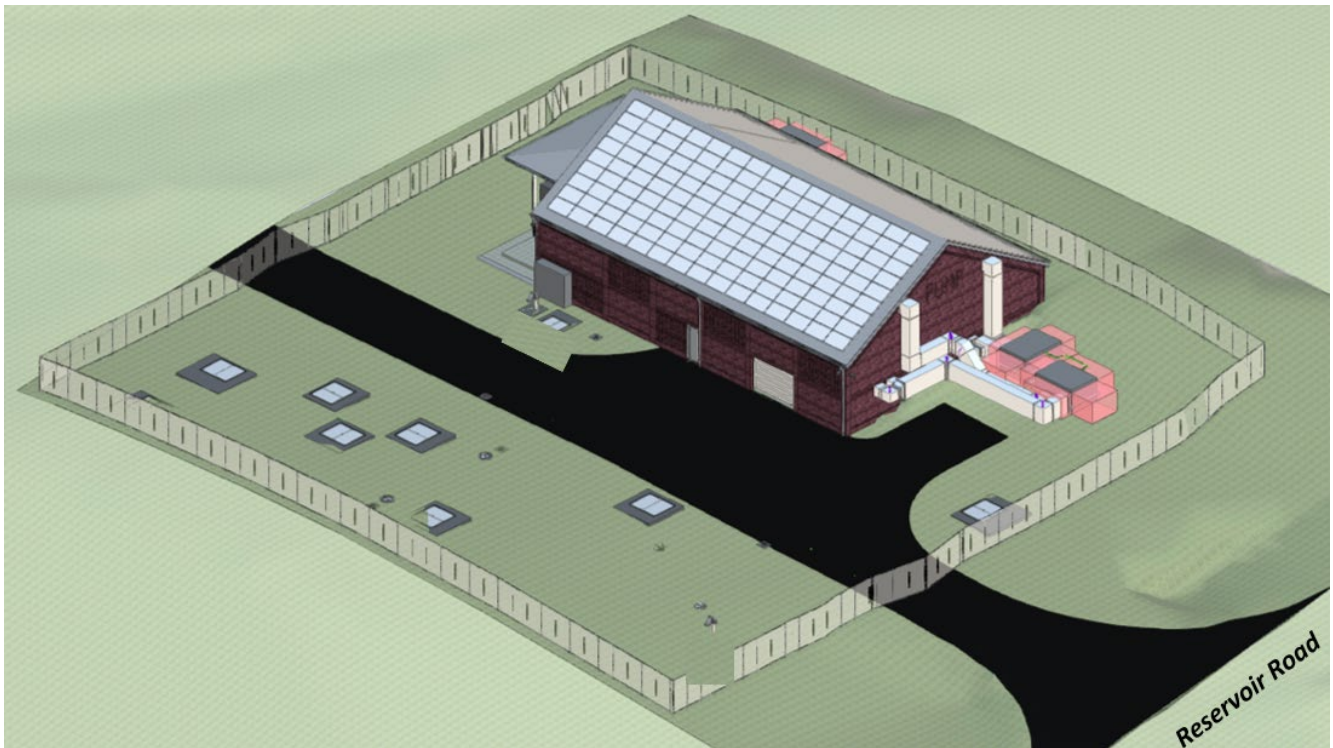
March 2025: The Contractor mobilized and began clearing trees on March 4th. Tree clearing will be the primary focus for the Contractor through the end of the month, and the Contractor will be working to clear as much of the project area as possible during this time. Temporary restoration measures, including grass seed and straw, will be utilized following the tree clearing for areas where pipe installation won't occur imminently. In addition to tree clearing, the Contractor is working to mobilize equipment, install appropriate erosion and sedimentation control measures, set up construction entrances, and set up its jobsite office trailer on the RWSA-owned pump station site near Foxhaven Farm.

February 2025: An informational meeting was conducted on January 29, 2025. Links to a recording of the presentation and the slides presented are included below under "Project Documentation." The Contractor is currently in the process of surveying the pump station site and the entirety of the pipeline alignment, and projects to have this completed this month. As early as the week of February 24, 2025, it is anticipated that the Contractor will begin mobilizing its equipment and jobsite trailer, as well as begin tree clearing efforts.

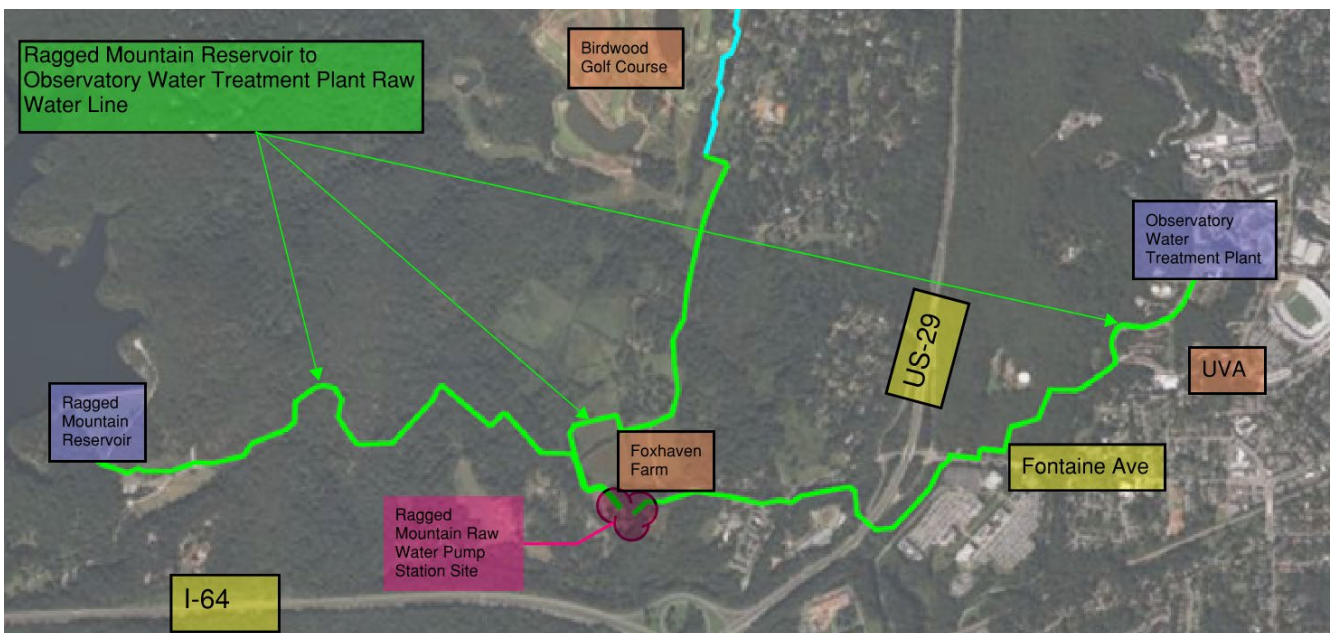
January 2025: Notice to Proceed (NTP) was issued to Thalle on December 12, 2024. The pre-construction conference will be conducted in late January, along with a public meeting. More details regarding the public meeting will be posted to <https://www.rivanna.org/>, under "Upcoming Events". Once these critical steps are taken to ensure that the project is communicated appropriately both internally within the project team and externally with stakeholders, it is anticipated that the Contractor will begin mobilizing its jobsite trailer and equipment to the area. Once mobilization has occurred, the Contractor's primary focus is likely to be tree-clearing, in order to facilitate pipe installation and pump station construction throughout the rest of 2025.



Map Showing Community Water Supply Plan Projects



Rendering of the new Ragged Mountain Raw Water Pump Station



Map Showing Extents of Ragged Mountain Reservoir to Observatory Water Treatment Plant Project and Proximity to Major Local Features

1

Project
Information
Meeting
1/29/2025



Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Main & Pump Station



Agenda

Welcome & Overview

- Bill Mawyer, RWSA Executive Director

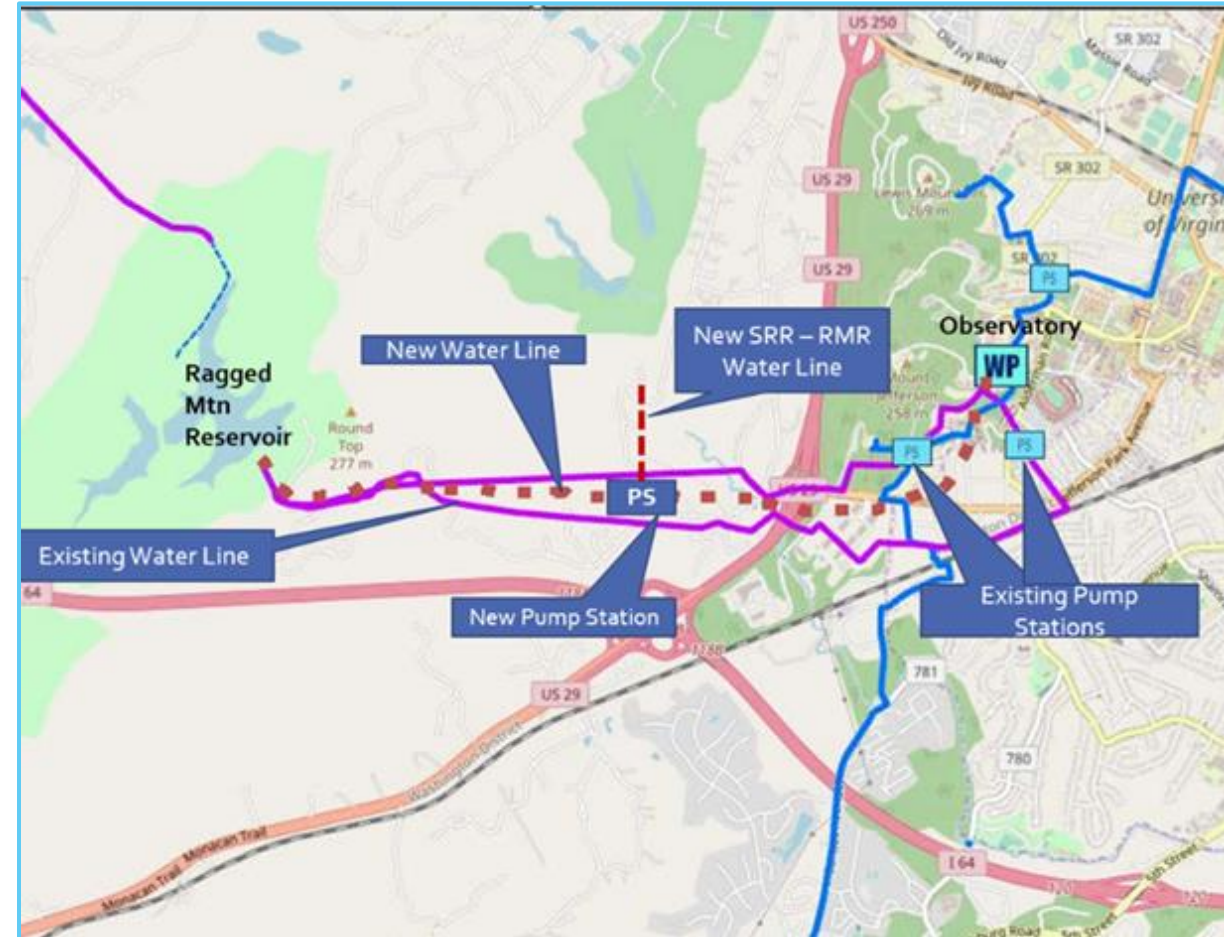
Project Review

- Project Team
- Schedule
- Construction Activities
- Traffic Management
- Coordination/Communication
- Safety



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
- 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
- Questions: Rivanna Water and Sewer Authority (RWSA)
 - Website: www.rivanna.org
 - Project Engineer: Austin Marrs, P.E.
434-977-2970, ext. 164
amarrs@rivanna.org



RWSA provides Wholesale Drinking Water and Wastewater Treatment for Two Customers



Rivanna Water and Sewer Authority Board of Directors



Mike Gaffney, RWSA Board Chair



**Jeff Richardson, RWSA Vice-Chair
County Executive, Albemarle County**



**Sam Sanders, RWSA Secretary-Treasurer
City Manager, Charlottesville**



**Brian Pinkston, Vice-Mayor
Charlottesville City Council**



**Ann Mallek, Supervisor
Albemarle County Board of Supervisors**

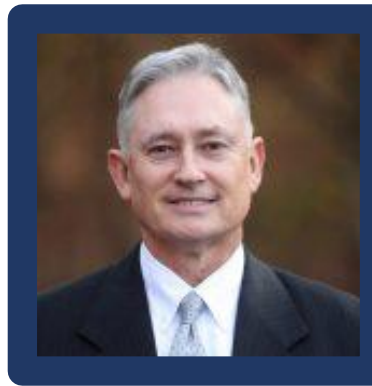


**Lauren Hildebrand
Director of Utilities
City of Charlottesville**

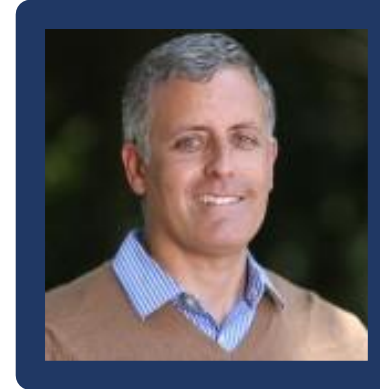


**Quin Lunsford
Executive Director
Albemarle County Service Authority**

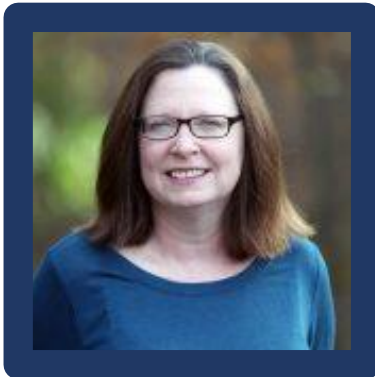
Rivanna Water & Sewer Authority and Rivanna Solid Waste Authority Executive Leadership



Bill Mawyer
Executive Director
RWSA and RSWA



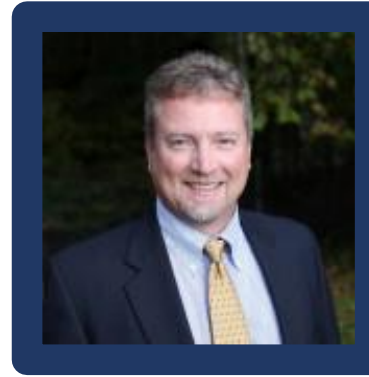
Dave Tungate
Deputy Executive Director



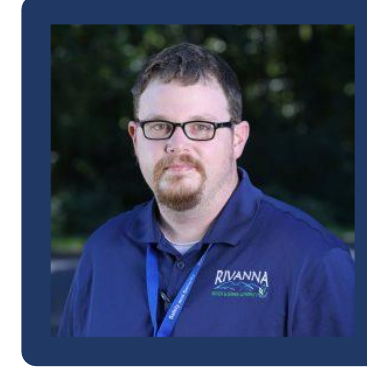
Betsy Nemeth
Director of Administration
and Communications



Jennifer Whitaker
Director of Engineering
and Maintenance



Lonnie Wood
Director of Finance and
Information Technology

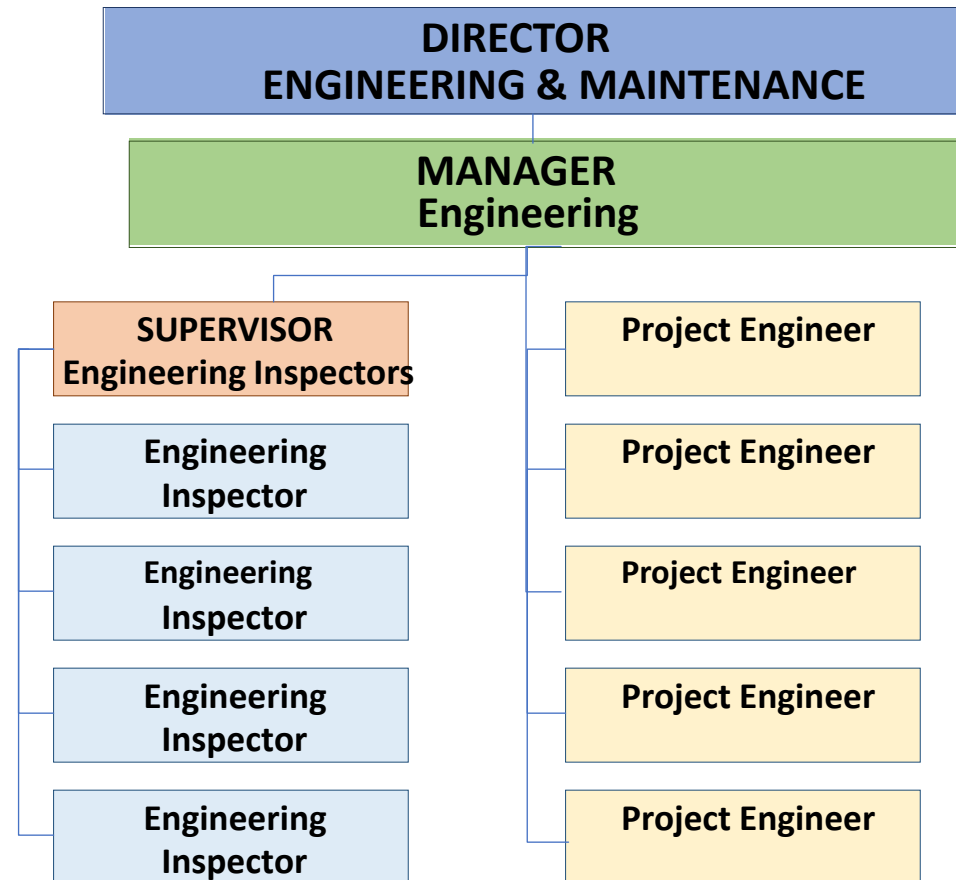


Daniel Campbell
Director of Operations and
Environmental Services



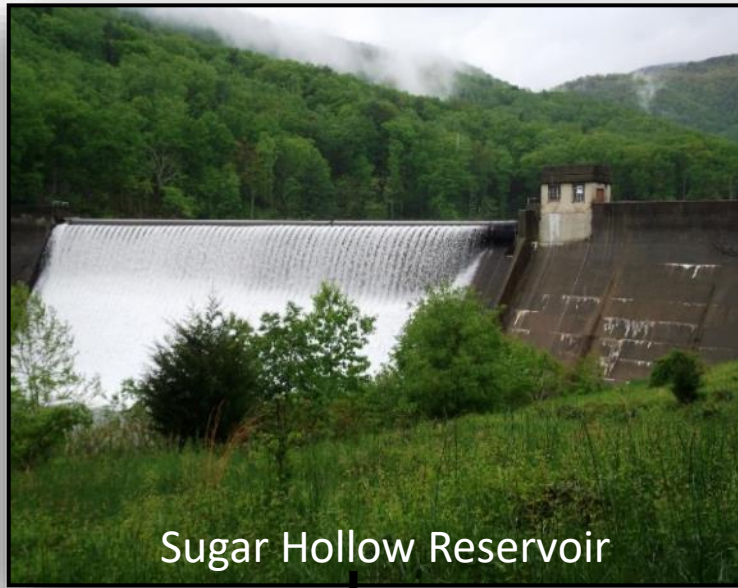
Phil McKalips
Director of Solid Waste

Capital Projects Management Team





South Fork Rivanna Reservoir



Sugar Hollow Reservoir



Ragged Mountain Reservoir



Beaver Creek Reservoir - Crozet

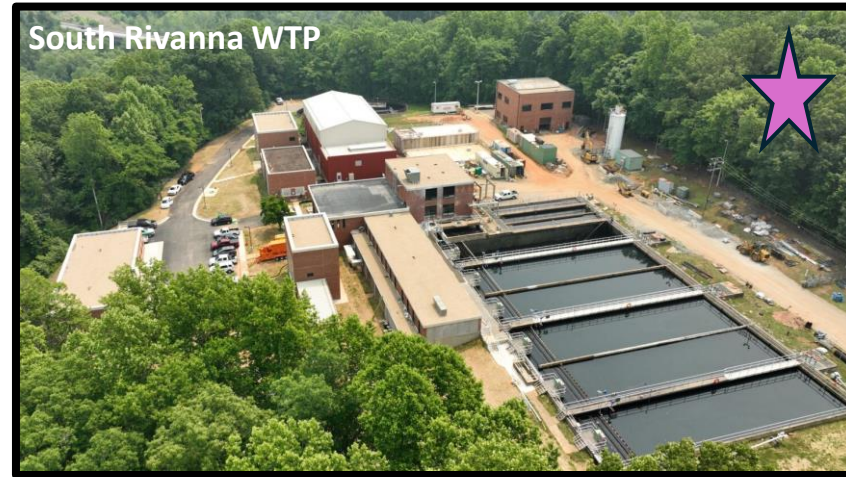


Totier Creek Reservoir - Scottsville

Urban
Area

3.3 Billion Gallons

5 Water Supply Reservoirs



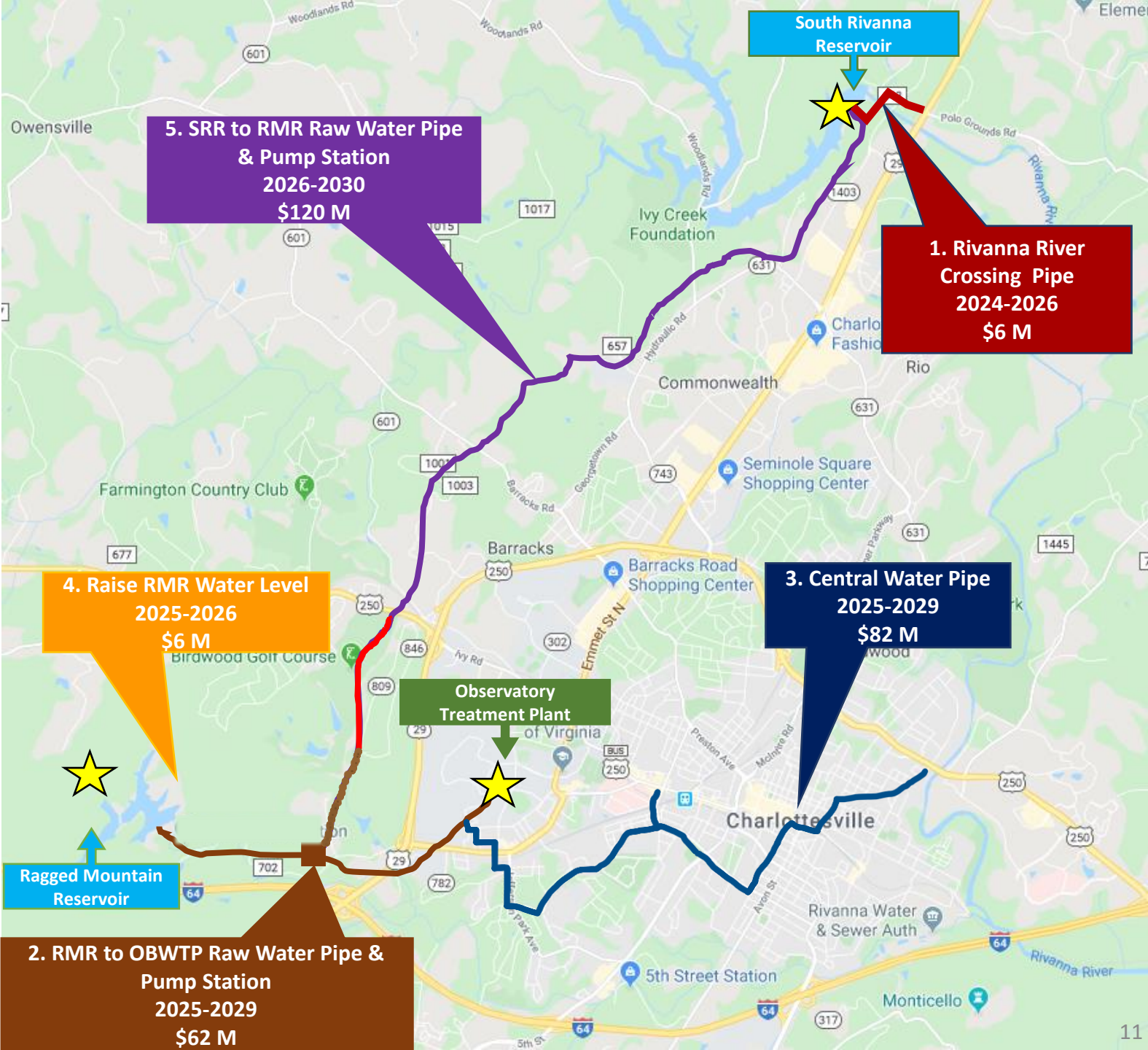
URBAN AREA



6 Water Treatment Plants



4 Wastewater Treatment Plants



Water Supply Projects

(January 22, 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> <i>Pipe: 80% ACSA / 20% City</i> <i>PS: 72% ACSA / 28% City</i>	\$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	\$120 M
ACSA \$196 M City Utilities \$80 M	\$276 M

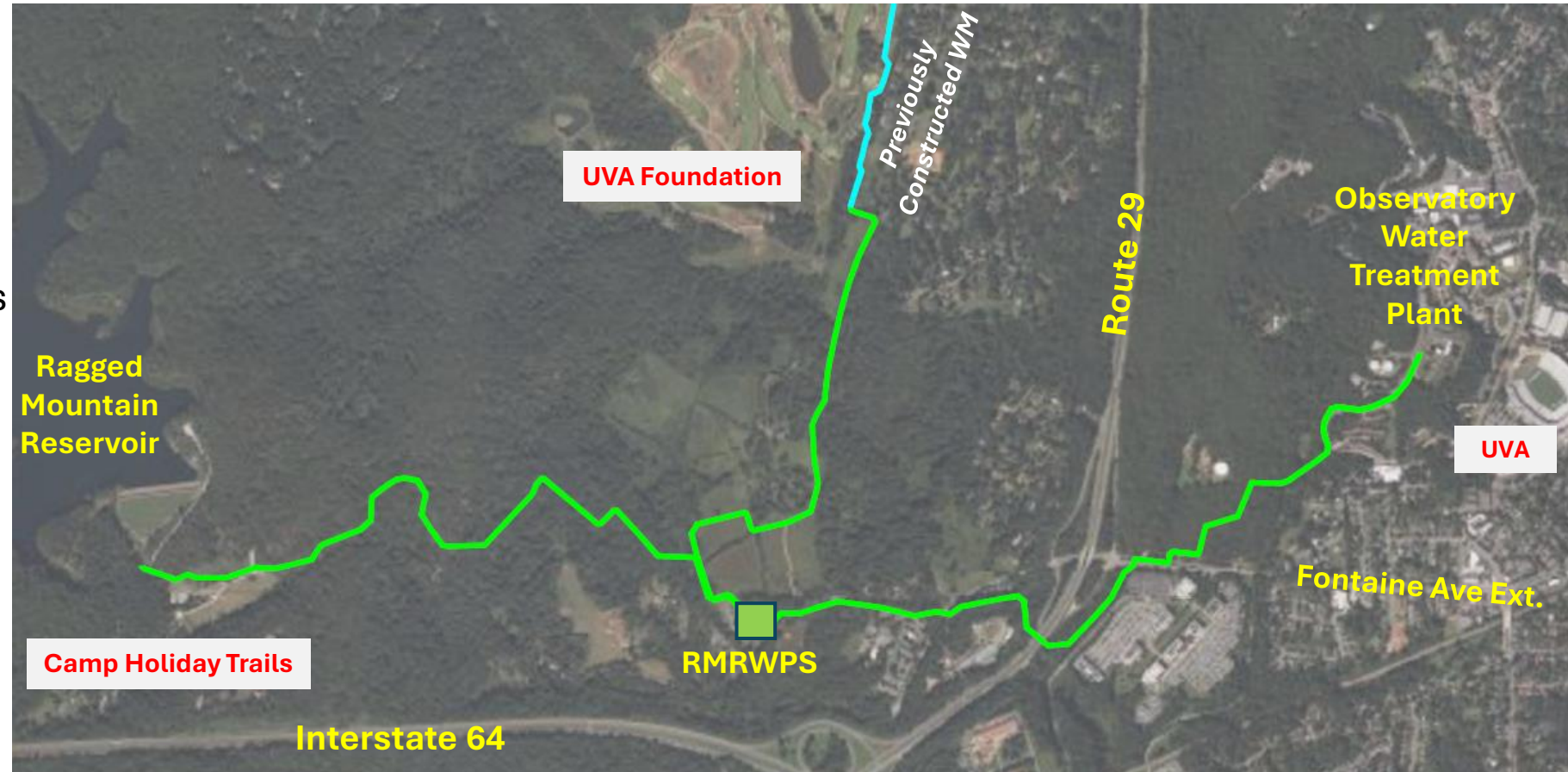
Project Team

- RWSA – Owner
 - G. Austin Marrs, P.E – Project Manager
- Kimley-Horn & Associates – Design Engineer
- Thalle Construction Company, Inc. – Contractor
- Project Stakeholders –
 - UVA
 - UVA Foundation
 - Camp Holiday Trails



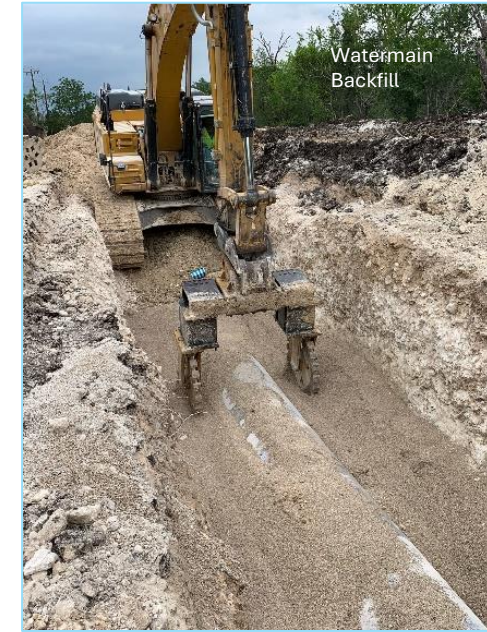
Project Overview

- 4 miles of 36" Ductile Iron Raw Water Main
 - Replaces piping dating back to 1908
- Ragged Mountain Raw Water Pump Station
 - Initially 10 million gallons per day
 - Replaces two pump stations dating back to the 1950s
 - Will help RWSA utilize recent capacity expansion at OBWTP
- Interconnect with future South Fork Rivanna Reservoir to Ragged Mountain Pipeline
- Duration: 2025 -2029

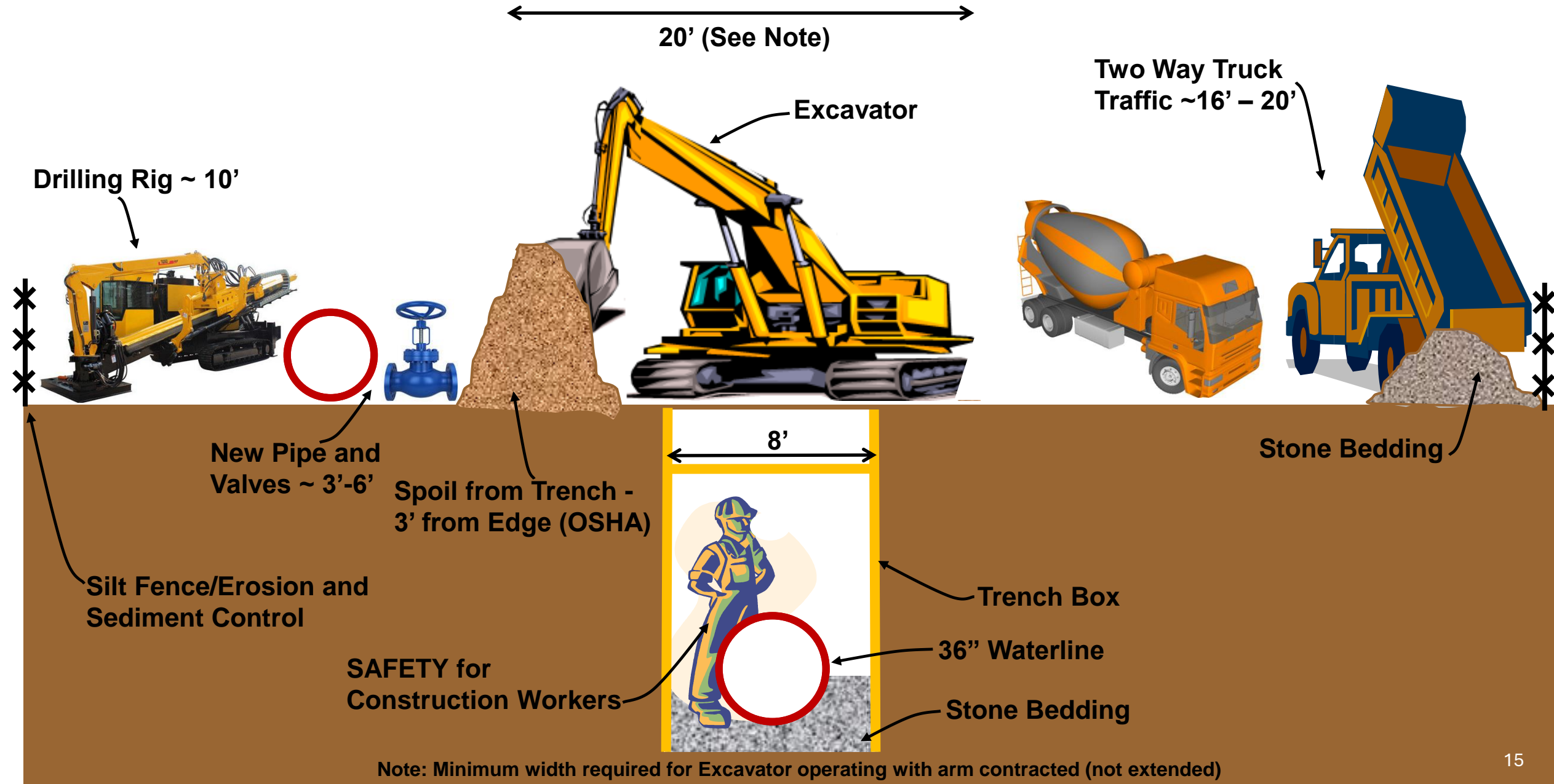


Construction Activities

- 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
- Water Pump Station on Reservoir Road
 - 4,820 SF masonry building near Regents School



Heavy Construction in the Easement – A Balancing Act



Construction Activities: Contractor Requirements

- All work will be performed within easement areas.
 - No access outside easement areas
 - Work Hours: 7 AM – 6 PM, Monday – Friday
 - Weekend/Holiday Work – Only with written authorization by RWSA
- Main Access: Reservoir Road
- Jobsite Trailer and Materials Storage: Pump Station Site
- RWSA will keep property owners informed of pertinent schedule updates.
 - Website updates – monthly, at a minimum
 - Email updates

Safety

To ensure safety of both workers and the public

- Highly visible signs, flags, barriers
- Temporary security fencing/ barriers around construction activities
- Warning signs in vehicle/ pedestrian traffic areas
 - Clear information regarding detours and restricted zones
- Safety personnel to monitor public access to ongoing construction activities

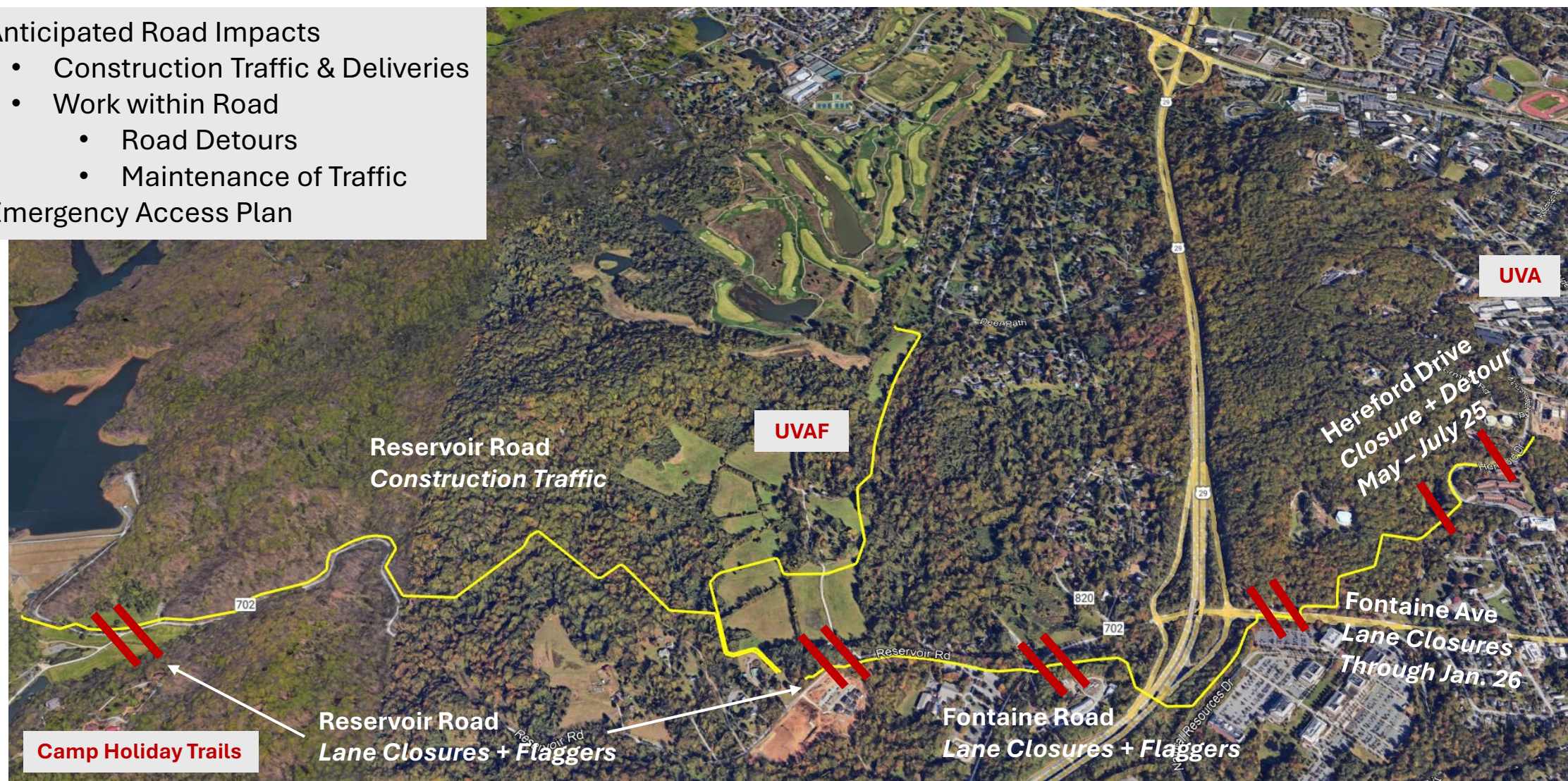


Access Plan

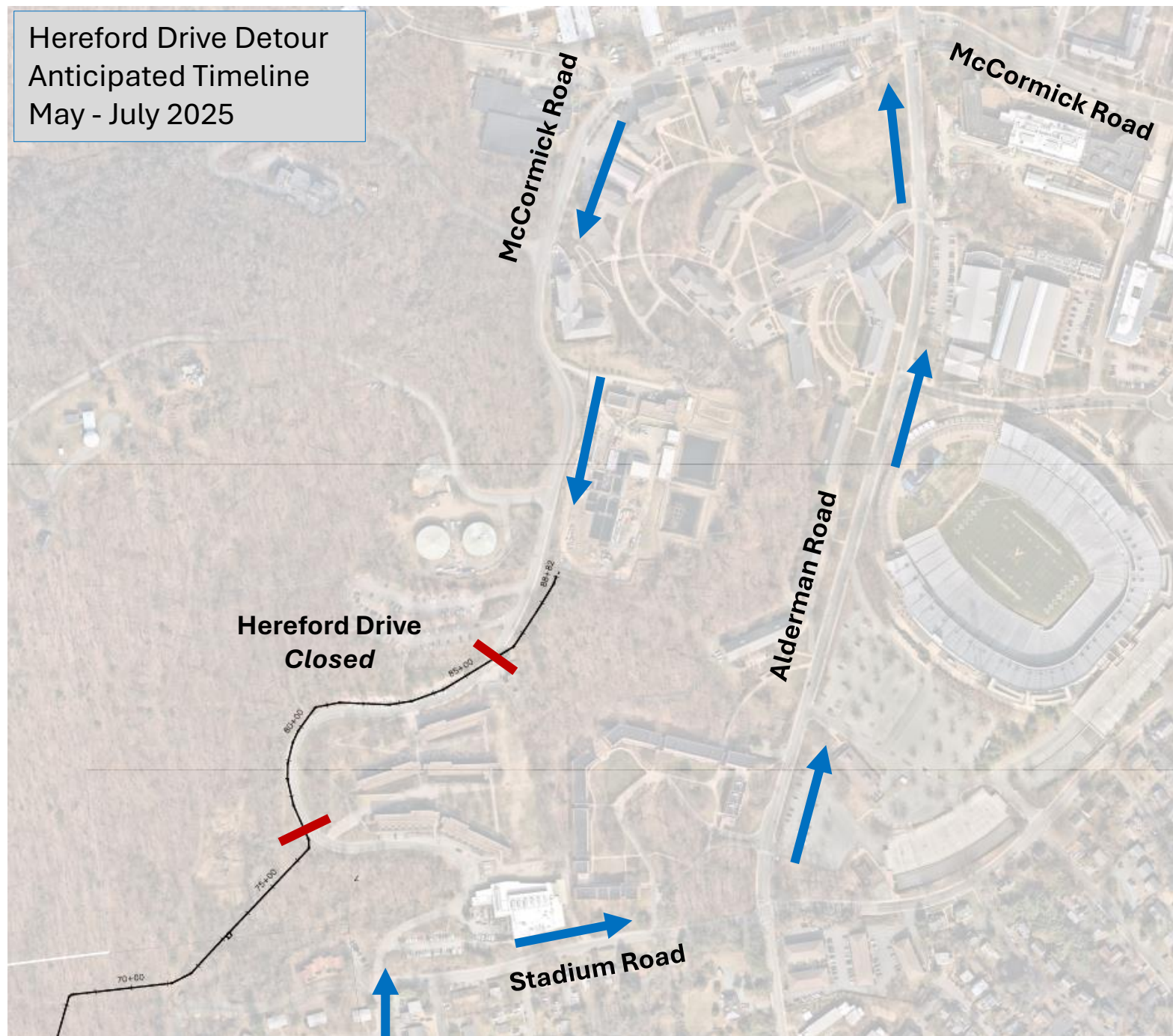
- Coordinate with local emergency responders to provide access at all times.
 - Reservoir Road is anticipated to be open local, school, mail, and other routine traffic at all times during the Work.
- In the event of an emergency:
 - Stoppage of all construction and public traffic
 - Public traffic will be directed to the nearest pull off point
 - Flaggers to control public traffic and direct emergency vehicle access
- Steel plates will be on site at all times during work within roadway.
 - Plates can be used to cover open trenches and provide emergency access
- Plan will be exercised at the beginning of the project, and monthly thereafter.

Access: Construction Traffic + Road Closures + Detours

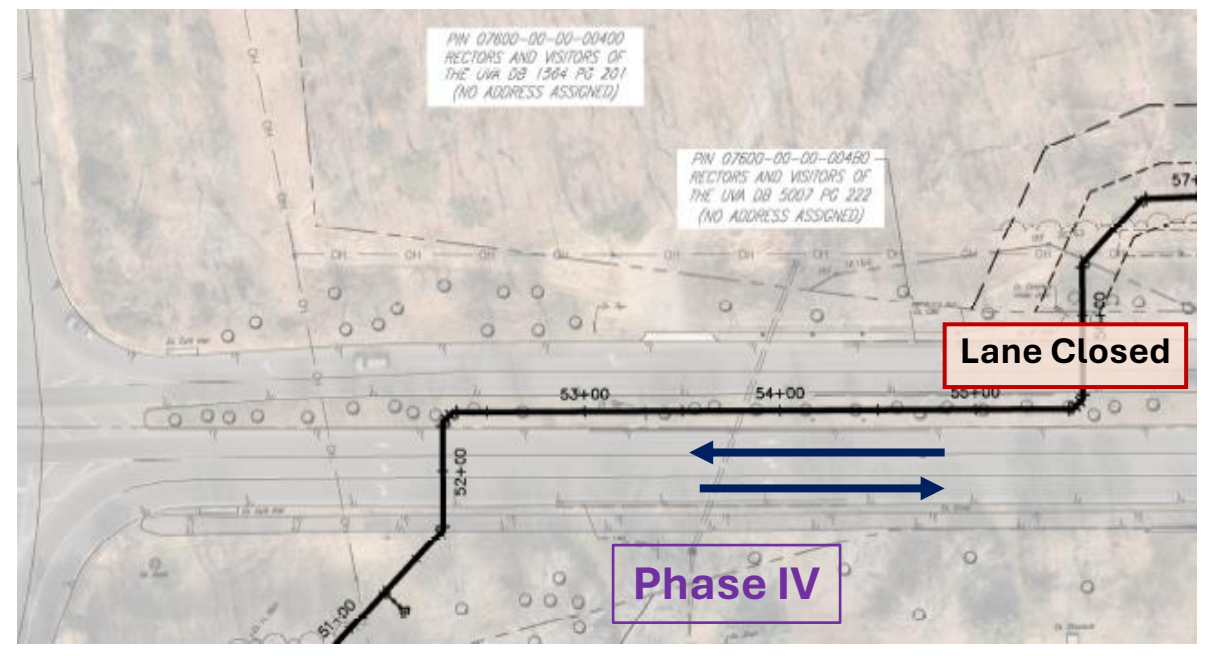
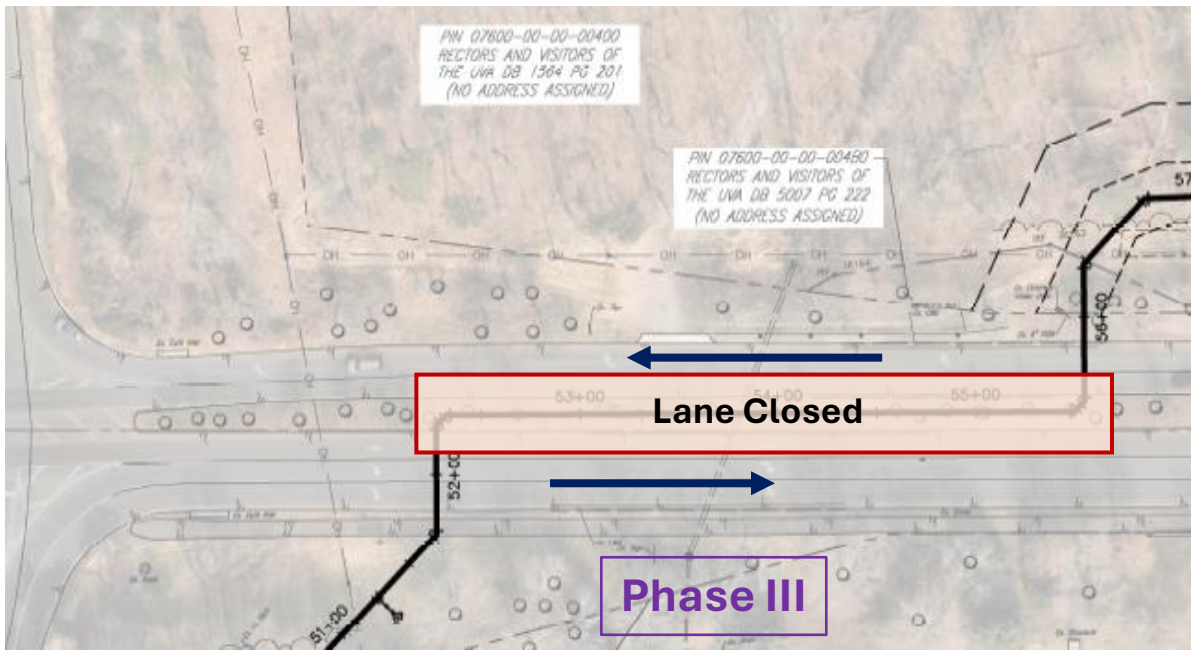
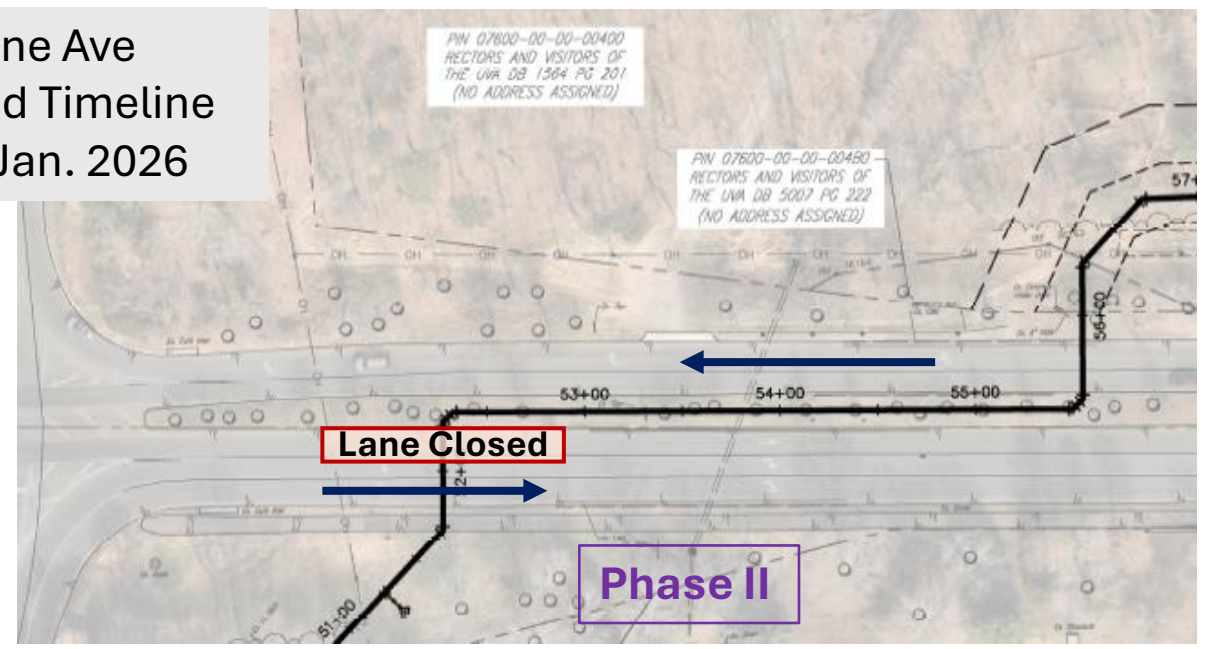
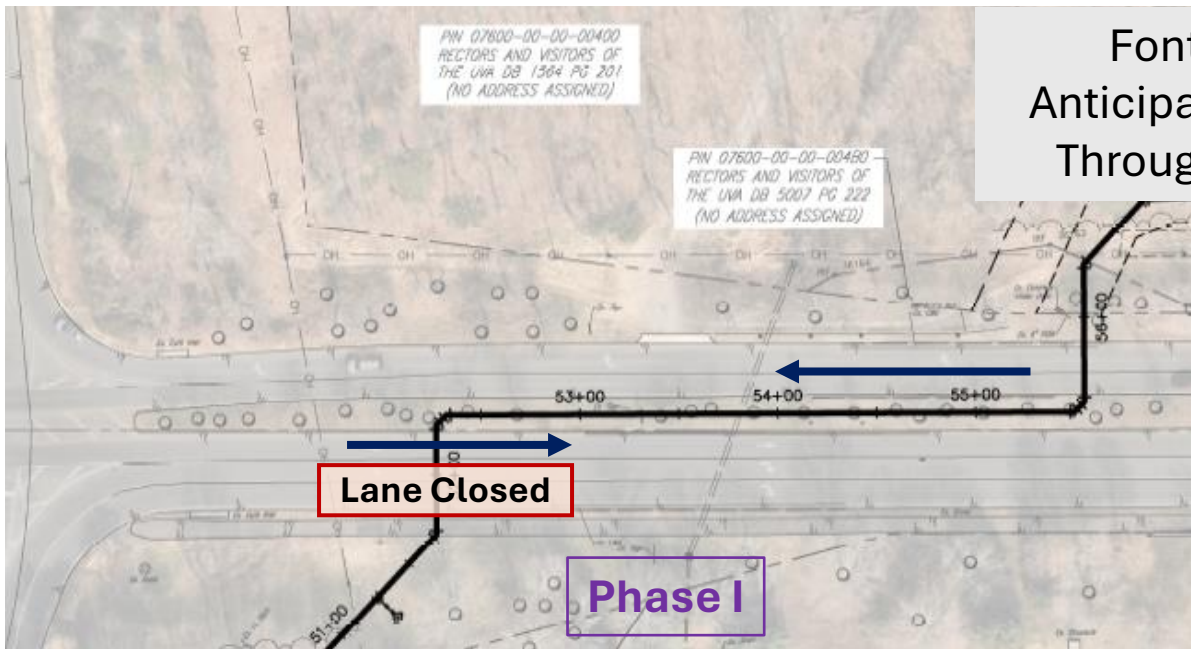
- Anticipated Road Impacts
 - Construction Traffic & Deliveries
 - Work within Road
 - Road Detours
 - Maintenance of Traffic
- Emergency Access Plan



Hereford Drive Detour
Anticipated Timeline
May - July 2025



Fontaine Ave Anticipated Timeline Through Jan. 2026



Coordination with Community

- UVA
 - Graduation – May
 - Football: Sept - Nov
 - Move Out/ Move In: August/May
 - Trails
- Camp Holiday Trails Sessions
 - Coordinate with Camp Schedule
 - Emergency Access
- Other Construction Projects
 - Fontaine Research Park
 - UVA Grounds
 - VDOT




Site Walk w/UVA –
August 2023

Communications Plan

- Project Webpage
 - <https://www.rivanna.org/>
 - Webpage located under “Construction Projects”
 - Webpage to be updated monthly, at a minimum
- Signage
 - Contractor will post signage at upcoming work sites, 30 days in advance, especially around high traffic areas (UVA Grounds).
- Emails
 - RWSA will provide monthly updates to all known email contacts in the project corridor.
 - Sign-In Sheet!
- Project-Related Questions: G. Austin Marrs, P.E.
434-977-2970, ext. 164
amarrs@rivanna.org

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Emergency or Routine Calls: **434-977-2970**



RWSA and RWSA Regular Board Meetings on 1-28-25

Board Meetings will be held at Rivanna Administration Offices (2nd floor conference room), 695 Moores Creek Lane, Charlottesville, VA. [Click here for more information](#)


[Read More](#)


Upcoming Events


JAN 9 Thu	4:00 pm Invitation for Bids – Central Wa...
JAN 14 Tue	4:00 pm Invitation for Bids – RWSA Balin...
JAN 28 Tue	2:00 pm RWSA Regular Board Meeting @ Riv... 2:15 pm RWSA Regular Board Meeting @ Rivanna Administration Building - 2nd Floor

" Our knowledgeable and professional team serves the Charlottesville, Albemarle, and UVA community by providing high-quality water and wastewater treatment, refuse, and recycling services in a financially responsible and sustainable manner. "

Recent Events

 **2024 Imagine a Day without Water Art Contest Winners!**
December 23, 2024
2024 Imagine a Day without Water Art Contest Winners! Judges ...

 **Great Pumpkin Smash at McIntire Recycling Center**
October 29, 2024
Go green this Halloween and compost your pumpkin! Rivanna Solid ...

 **Imagine A Day Without Water**
October 8, 2024
We are excited to announce that the City of Charlottesville, ...

Questions?



Thank you!!

