

Water System Improvements Design-Build

Four Seasons at Historic Virginia
HOA Annual Meeting
May 1, 2018

SA Project Manager:

David R. Scott, PhD, PMP

Program Mgmt. Consultant:

Arcadis US, Inc.

Contractor:

To be determined



Service Authority
Exceptional Water Service

Agenda

- ◆ Project Background
- ◆ Purpose of Project
- ◆ Conceptual Site Layout
- ◆ Architecture
- ◆ Review Project Status
- ◆ SA Commitments
- ◆ Additional Improvements
- ◆ Q&A



Project Background

- ◆ April 1999, SA identified the need to improve water system hydraulics and reliability in the area.
- ◆ October 2012, reevaluated and relocated pump station location.
- ◆ In late 2015, changed the construction method to design-build due to complexity of the project.
- ◆ Concurrently, SA reevaluated potential use of existing facilities and other options.
- ◆ Preparing to proceed with advertising Request for Proposal (RFP) for design-build.

Purpose of the Project

- ◆ Maintain water quality.
- ◆ Improve system hydraulics and reliability for Four Seasons and other customers.
- ◆ Provide a redundant water line into Four Seasons.
- ◆ Maintain the level of service residents receive.
- ◆ Accommodate future growth and water demands / existing system will not adequately support growth.

Conceptual Site Layout



Booster Pump Station

Discharge Main

Supply Main

17411

17409

Four Seasons Dr

Four Seasons Dr

Conceptual Site Layout



Four Seasons Dr

Four Seasons Dr

17411

17409



Architectural Rendering



MONTCLAIR BOOSTER PUMP STATION

Project Status Update

- ◆ Requests for Proposals – spring 2018.
- ◆ MOA finalized with Four Seasons HOA – spring 2018.
- ◆ Anticipated construction contract award – fall 2018.
- ◆ Anticipated construction duration of 24 months.
 - ◆ To be finalized based on the successful Proposal.

SA Commitments

- ◆ To restore property affected by SA construction to original or better condition.
- ◆ To maintain road access at all times.
 - ◆ Emergency services, trash, mail, and other services.
- ◆ To continuously communicate and work with HOA concerning project status.
- ◆ To respond quickly to residents' concerns.

SA Commitments

- Work with the HOA to define parking and access constraints.
 - Incorporated into Design-Build Agreement.
- Daily clean-up by the Contractor is required.
- Service Authority Inspector on site daily and as necessary.
- Construction Manager / SA Project Representative on site for the duration of the project.

Additional Improvements

- 30% Conceptual Layout Depicted.
- Remaining design through 2018.
- Work falls within the VDOT right of way.

VDOT ROW

12" Waterline



Questions and Contacts

- ◆ Project e-mail address
 - ◆ Montclair_DB@pwcsa.org
- ◆ Project website
 - ◆ <https://www.pwcsa.org/montclair-db-project>
- ◆ Service Authority Liaison
 - ◆ Kathy Bentz
 - ◆ Community Relations & Outreach Manager
 - ◆ Phone: (703) 335-8944
- ◆ Questions



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Montclair/Four Seasons Water System Improvements Design-Build Project

Four Seasons at Historic Virginia
Project Update Teleconference
August 24, 2020

SA Project Manager:

David R. Scott, PhD, PMP

Program Mgmt. Consultant:

Chris Remme - Arcadis US, Inc.

Contractor:

Joe Chaklos - ACE/KCI



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Agenda

- Project Background
- Purpose of Project
- Conceptual Site Layouts
- Architecture
- Review Project Status
- SA Commitments
- Q&A



Project Background

- ◆ April 1999, SA identified the need to improve water system hydraulics and reliability in the area.
- ◆ October 2012, reevaluated and relocated pump station location.
- ◆ In late 2015, changed the construction method to design-build due to complexity of the project.
- ◆ Concurrently, SA reevaluated potential use of existing facilities and other options.
- ◆ Design/Build Agreement awarded to ACE/KCI for Preliminary Design and the GMP.

Purpose of the Project

- ◆ Maintain water quality.
- ◆ Improve system hydraulics and reliability for Four Seasons and other customers.
- ◆ Provide a redundant water line into Four Seasons.
- ◆ Maintain the level of service residents receive.
- ◆ Accommodate future growth and water demands / existing system will not adequately support growth.

Conceptual Site Layout



Booster Pump Station

Discharge Main

Supply Main

17411

17409

Four Seasons Dr

Four Seasons Dr

Conceptual Site Layout



Architectural Rendering



MONTCLAIR BOOSTER PUMP STATION

Project Status Update

- ◆ MOA finalized with Four Seasons HOA – spring 2018.
- ◆ Requests for Proposals – fall 2019.
- ◆ Prelim Design/GMP Design-Build contract award – July 29, 2020.
- ◆ Anticipated Design/Build Construction duration of 18 months.
 - ◆ To be finalized based on the successful completion of the Preliminary Design and GMP negotiations – summer 2021.

Project Status Update

- ◆ Design-Build Agreement 1819A – Prelim Design/GMP.
 - ◆ ACE/KCI
 - ◆ Start date July 29, 2020
 - ◆ Completion date April 29, 2021
 - ◆ Duration is 274 calendar days
 - ◆ Scope - Design to 65%, prepare and negotiate a Guaranteed Maximum Price (GMP)
 - ◆ Lump Sum Contract Price of \$565,000
 - ◆ If the PWCSA chooses to off-ramp the Project, the Design-Builder shall be compensated at a Lump Sum amount of \$165,000 for completion of the design
 - ◆ The Project Price Not to Exceed (PPNE) is \$9,686,000

Project Status Update

- ◆ Design-Build Agreement 1819B – Construction & Final Design.
 - ◆ ACE/KCI
 - ◆ Anticipated start - fall 2021
 - ◆ Anticipated completion – spring 2023
 - ◆ Duration – 611 calendar days
 - ◆ Scope – Construction and final design
 - ◆ Guaranteed Maximum Price (GMP)
 - ◆ Total Design-Builder project duration is 885 calendar days for both Agreements

SA Commitments

- ◆ To restore property affected by SA construction to original or better condition.
- ◆ To maintain road access at all times.
 - ◆ Emergency services, trash, mail, and other services.
- ◆ To continuously communicate and work with HOA concerning project status.
- ◆ To respond quickly to residents' concerns.

SA Commitments

- Work with the HOA to define parking and access constraints.
 - Incorporated into Design-Build Agreement.
- Daily clean-up by the Contractor is required.
- Service Authority Inspector on site daily and as necessary.
- Construction Manager / SA Project Representative on site for the duration of the project.

Questions and Contacts

- ◆ Project e-mail address
 - ◆ Montclair_DB@pwcsa.org
- ◆ Project website
 - ◆ <https://www.pwcsa.org/montclair-db-project>
- ◆ Service Authority Liaison
 - ◆ Kathy Bentz
 - ◆ Community Relations & Outreach Manager
 - ◆ Phone: (703) 335-8944
- ◆ Questions



Service Authority
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Service Authority Capital Projects

Potomac District Town Hall
Supervisor Andrea Bailey
April 22, 2021

SA Team:

Kathy Bentz,
Communications Division Deputy Director

Elena Herrera, P.E.
Project Manager

David R. Scott, PhD, PMP
Project Manager

Alex Silver,
Project Manager

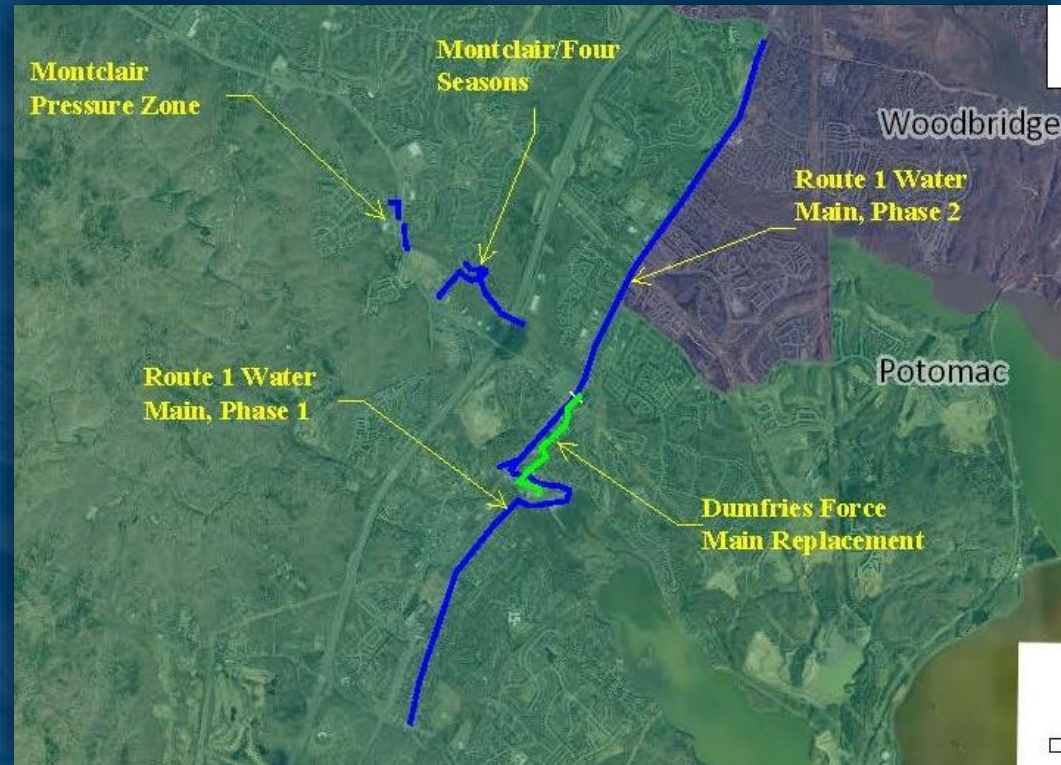
Debbie Maxwell, P.E., CCM
Capital Projects Manager



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Agenda

- ◆ Introductions
- ◆ Project Overviews
- ◆ Dumfries Force Main
- ◆ Route 1 Water Main
- ◆ Montclair/Four Seasons
- ◆ Montclair Pressure Zone
- ◆ Service Authority Commitments
- ◆ Q&A

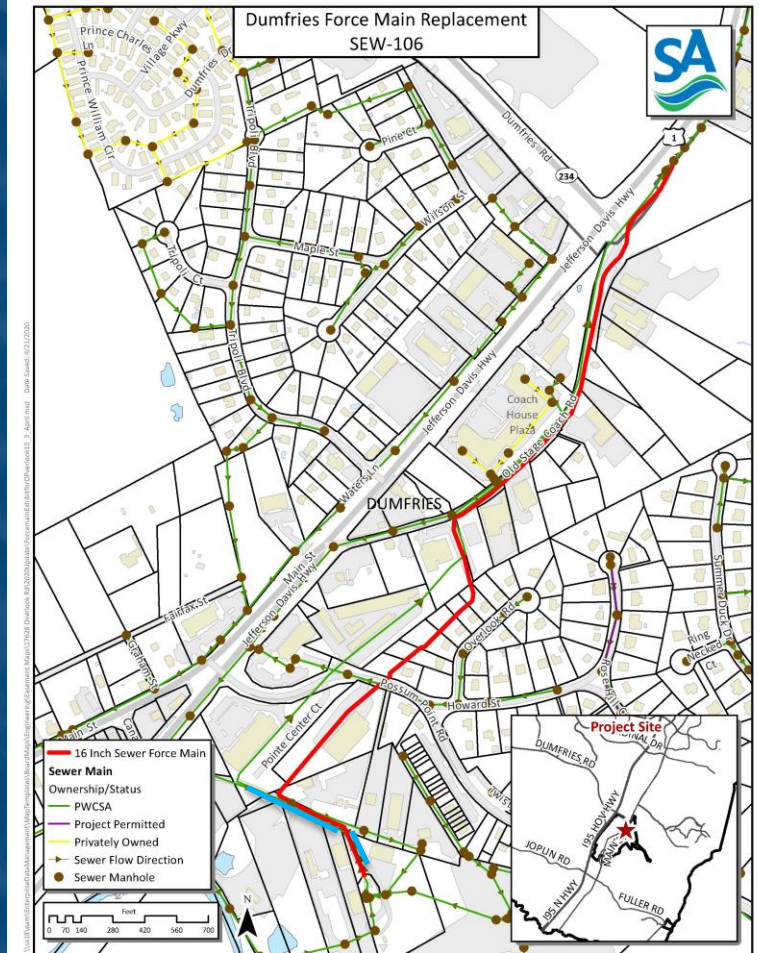


Dumfries Force Main & Route 1 Water Main Team

- Service Authority Project Manager
 - M. Elena Herrera, P.E.
- Engineer of Record
 - Pasquale Arcese, P.E. – Michael Baker International, Inc.
- Construction Administration Services
 - Tim DiLiscia, CCM – RK&K, LLC
 - Kathy Marshal, P.E., CCM – RK&K, LLC
- Contractor
 - Mark Oetjen – Project Manager for Utilities Unlimited, LLC
 - Jenna Burum – Public Liaison for Utilities Unlimited, LLC

Dumfries Force Main Replacement

- Install 4,200 feet of 16-inch PVC pressurized sewer main (force main)
- Install 600 feet of 6-inch water main
- Construction between Dumfries Sewage Pumping Station and Route 234
- The new force main will improve system reliability and reduce maintenance and repair costs
- Construction Schedule:
 - February 2022 - February 2023



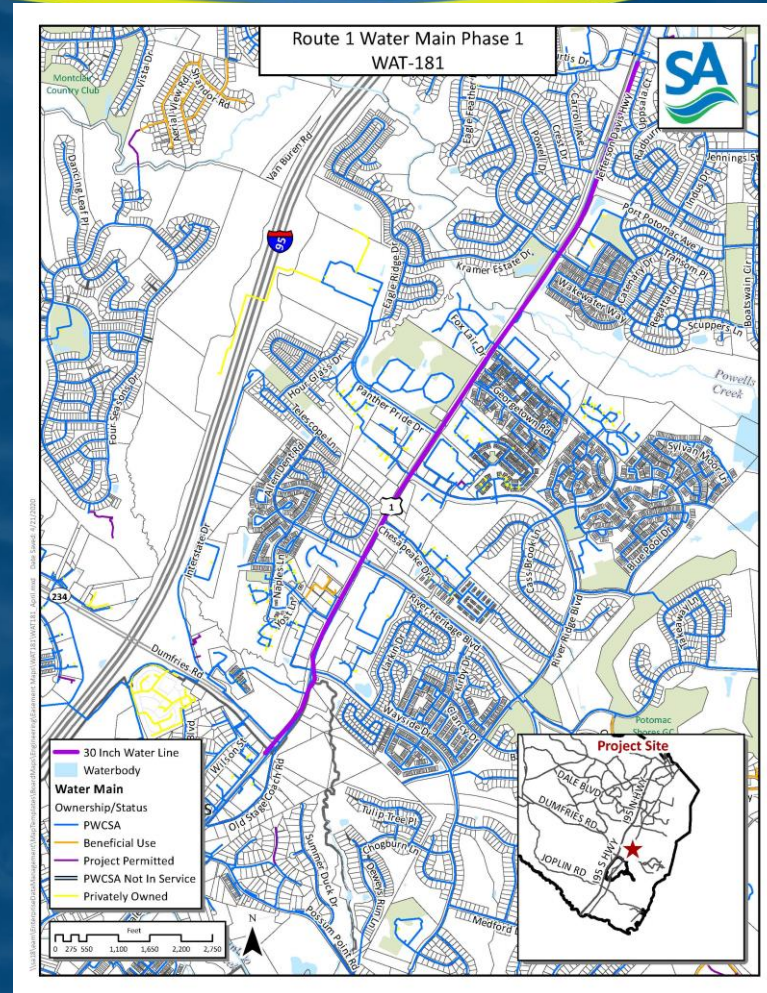
Dumfries Force Main Customer Impacts

- Property Rights Agreements achieved with commercial and residential property owners along the project corridor
- Agreement completed between Dominion Energy Virginia and Service Authority for the alignment
- Primarily day-time construction with exception of two commercial parcels



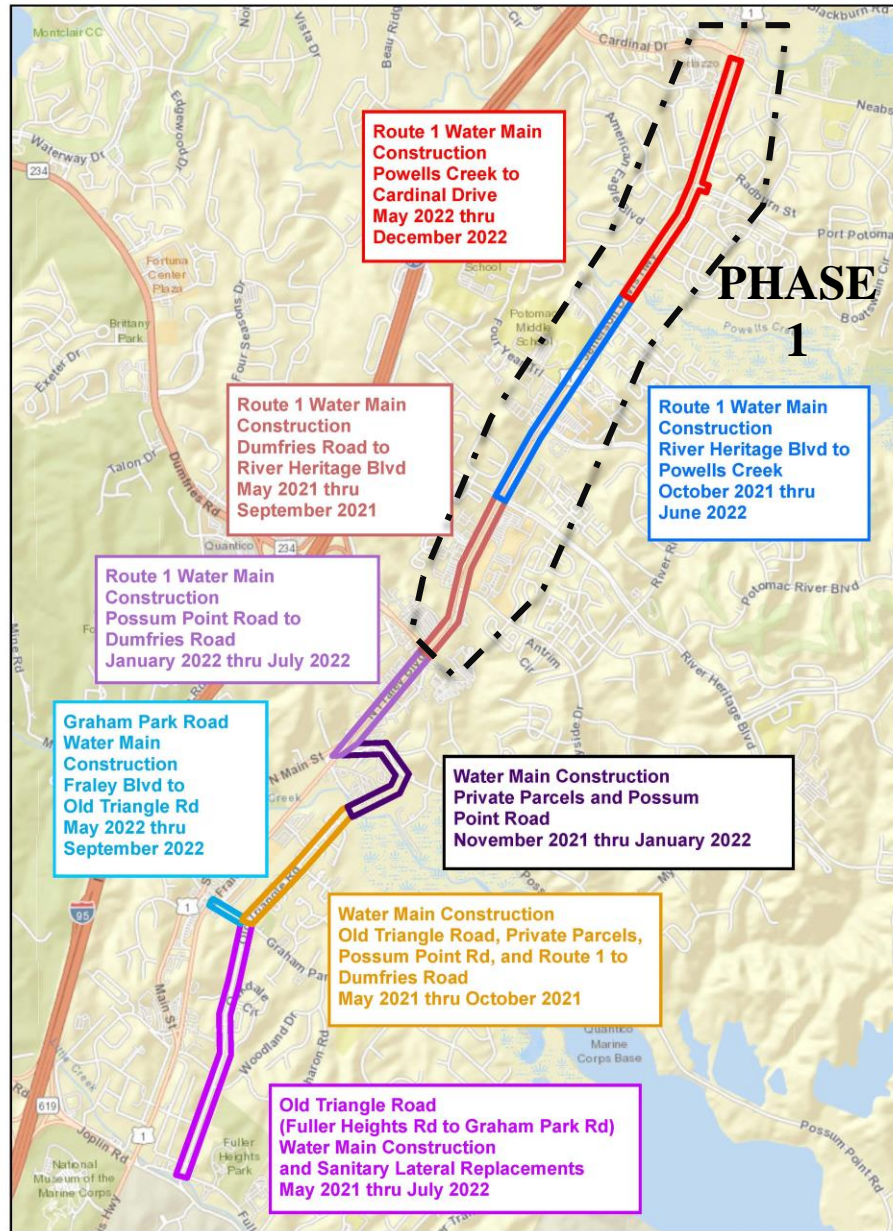
Route 1 Water Main, Phase 1

- Install 13,500 feet of 30-inch and 1,920 feet of 6-inch ductile iron pipe water mains
- Construction between Route 1 at Neabsco Road and Route 1 at Route 234
- Increase transmission along the project corridor
- Improve system reliability and meet customer water demand
- Construction Schedule:
 - May 2021 - December 2022



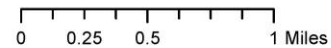
Route 1, Phase 1 Customer Impacts

- ◆ Property Rights Agreements (easements) with affected commercial properties
- ◆ No direct impact to residential customers,
- ◆ Construction primarily along Route 1 corridor in VDOT Right-of-Way:
 - ◆ Lane closures involved
 - ◆ Limit impacts through traffic control and night work
 - ◆ Signage boards & notifications
- ◆ Notification before any service interruptions



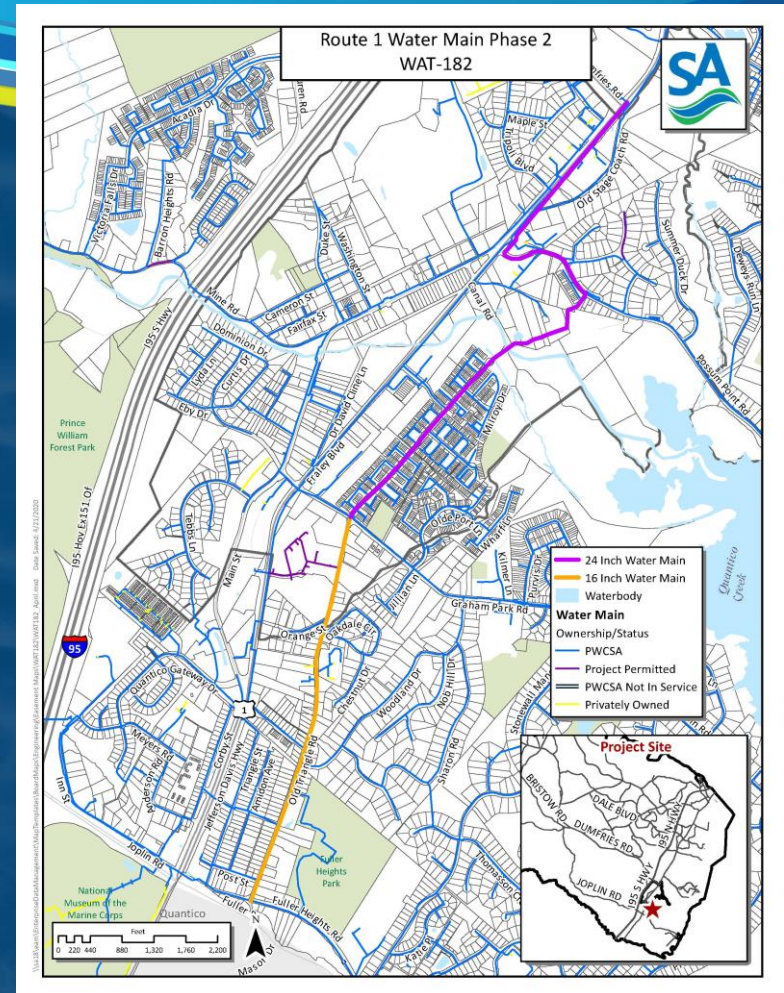
**SA-2022 -
SCHEDULE SEGMENTS -
Route 1 Water Main**

Per Contractor's Preliminary Schedule



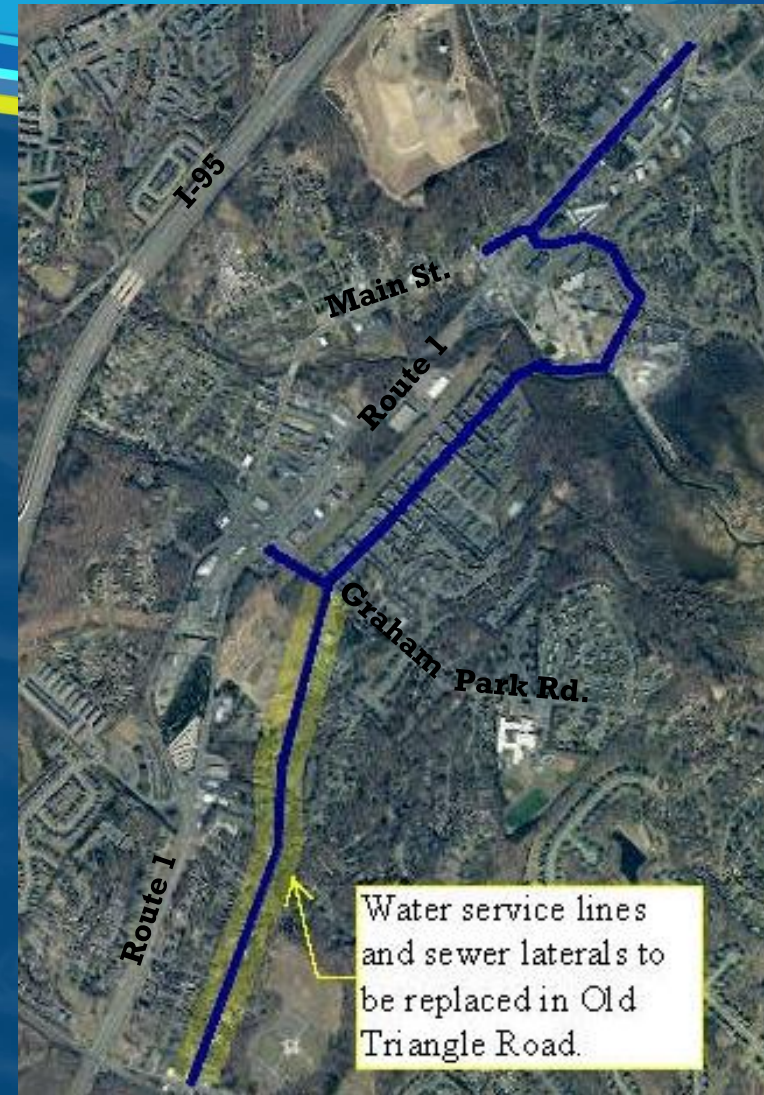
Route 1 Water Main, Phase 2

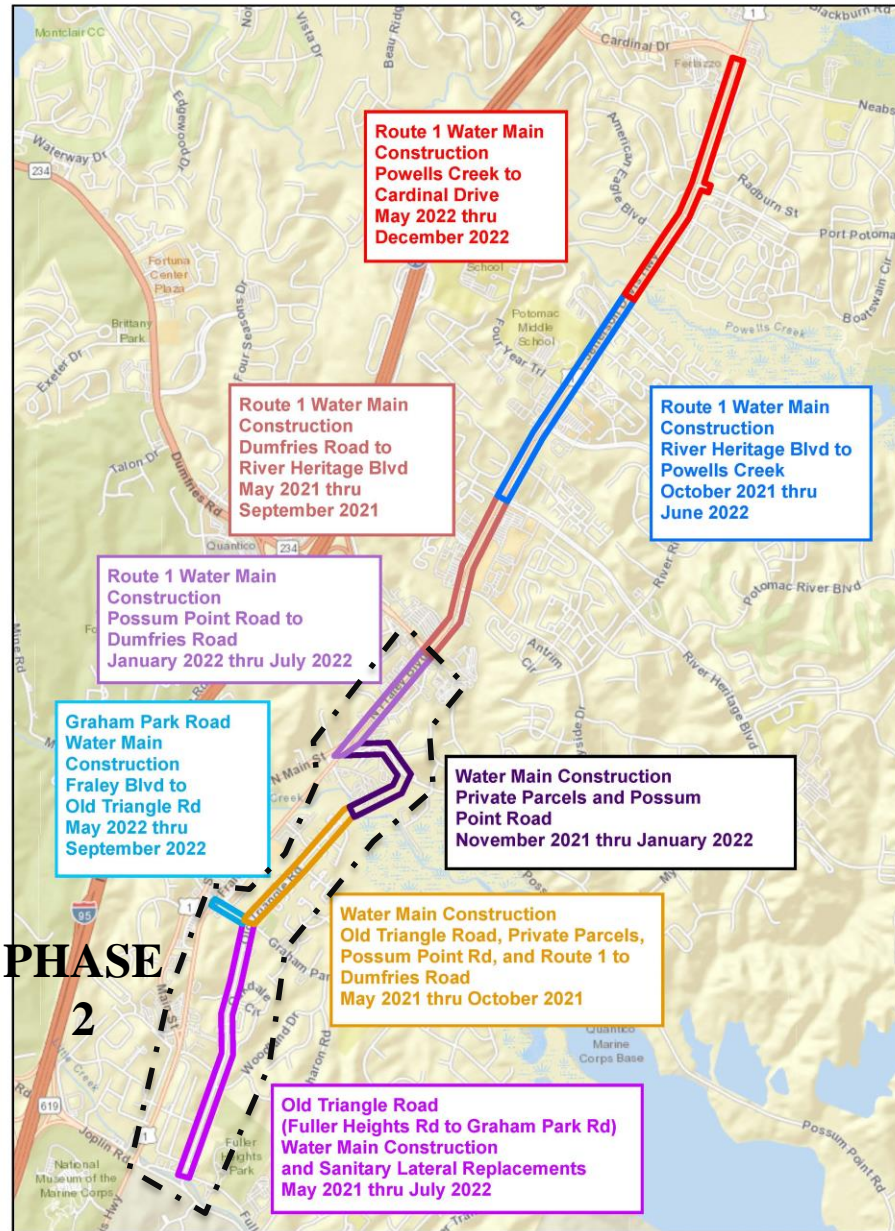
- Install 8,750 feet of 24-inch, 5,500 feet of 16-inch and 3,350 feet of 6-inch ductile iron pipe water mains
- The new water mains will:
 - Increase water transmission from Route 234 to Fuller Heights Road
 - Improve system reliability
 - Meet customer water demand
 - Replace aging distribution system in the Dumfries / Triangle Area
- Construction Schedule:
 - May 2021 - July 2022



Route 1, Phase 2 Customer Impacts

- ◆ Direct impact to residential customers along Old Triangle Road (yellow box)
- ◆ Property Rights Agreements (easements) with affected commercial properties and HOAs
- ◆ Work primarily within VDOT Right-of-Way and Town of Dumfries Right-of-Way
 - ◆ Traffic impact, lane closures, night work
- ◆ Mostly daytime work
- ◆ Nighttime work per agreement with some commercial properties and on Route 1

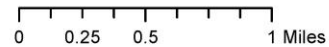




**PHASE
2**

**SA-2022 -
SCHEDULE SEGMENTS -
Route 1 Water Main**

Per Contractor's Preliminary Schedule



Information Resources

Route 1 Water Main

Web Page: <https://www.pwcsa.org/rt1-water-main>

Email: Rt1WaterMain@pwcsa.org

Dumfries Force Main

Web Page: <https://www.pwcsa.org/dumfries-force-main>

Email: DumfriesForceMain@pwcsa.org

Montclair/Four Seasons Water System Improvements

- ◆ Service Authority Project Manager
 - ◆ David R. Scott, PhD, PMP
- ◆ Program Management Consultant
 - ◆ Chris Remme – Arcadis
- ◆ Design-Builder
 - ◆ ACE/KCI

Montclair/Four Seasons Site Layout



Booster Pumping Station

Temporary Access Road

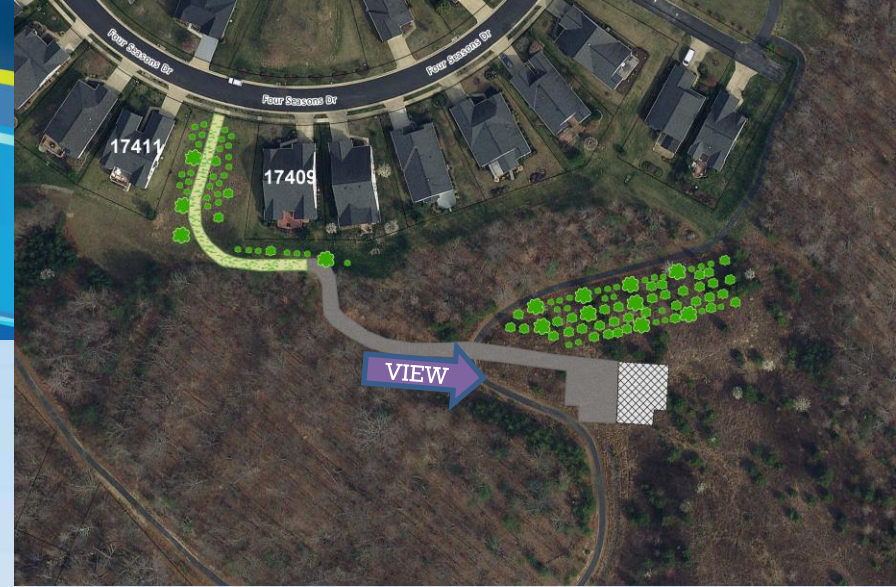
Supply Main

Discharge Main

Montclair/Four Seasons Site Layout



Architectural Rendering



Montclair/Four Seasons Booster Pumping Station

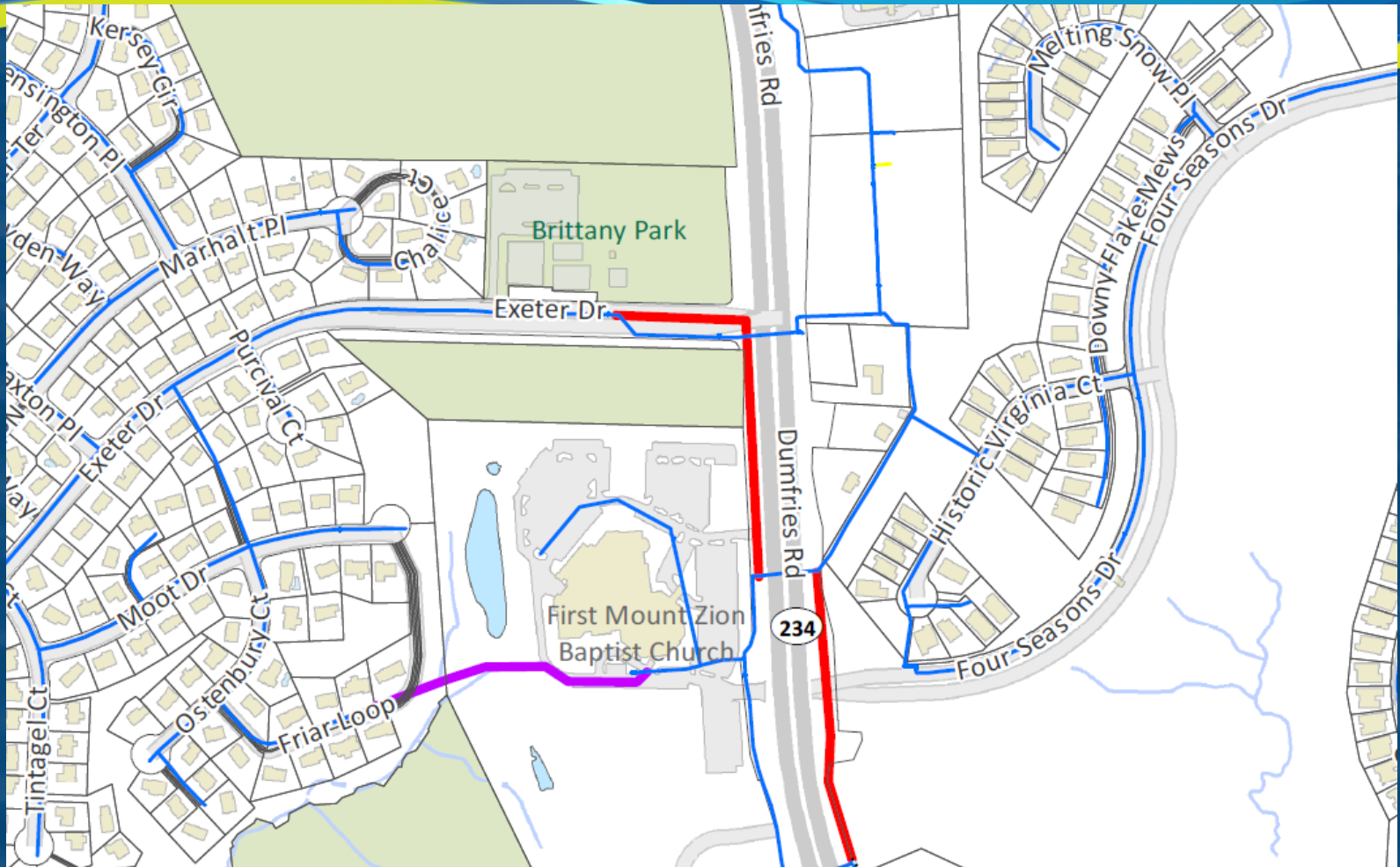
Montclair/Four Seasons Water System Improvements

- Preliminary Stage Design
 - Summer 2020 - Spring 2021
- Final Design and Construction
 - Fall 2021 - Spring 2023
- Project email:
 - Montclair_DB@pwcsa.org
- Project web page:
 - www.pwcsa.org/montclair-db-project

Montclair Pressure Zone Project

- ◆ Service Authority Project Manager
 - ◆ Alex Silver
- ◆ Designer
 - ◆ The Engineering Groupe, Inc.
- ◆ Contractor
 - ◆ A&M Concrete Corporation

Montclair Pressure Zone Overview



Service Authority Commitments

- ◆ Restore property affected by SA construction to original or better condition
- ◆ Maintain road access at all times
- ◆ Maintain access to emergency services, trash, mail, etc.
- ◆ Continuously communicate and work with the community concerning project status
- ◆ Respond quickly to residents' concerns
- ◆ Work with the community to define parking and access constraints
- ◆ Require daily clean-up by the Contractor
- ◆ Service Authority Inspector on site daily and as necessary

Project Information Resources

◆ Route 1 Water Main

- ◆ Web Page: <https://www.pwcsa.org/rt1-water-main>
- ◆ Email: Rt1WaterMain@pwcsa.org

◆ Dumfries Force Main

- ◆ Web Page: <https://www.pwcsa.org/dumfries-force-main>
- ◆ Email: DumfriesForceMain@pwcsa.org

◆ Montclair/Four Seasons Project

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Questions



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