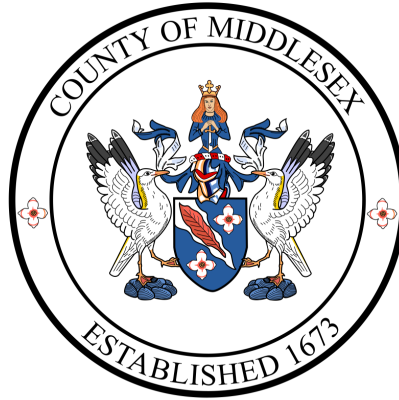


INVITATION TO BID MWA2026-01



Middlesex Water Authority Dove Haven Water Main Replacement

Deltaville, VA 23043

Issued June 15, 2026

**Responses due by
July 2, 2026 at 2:00 P.M**

Reply to:

Middlesex Water Authority
Chip England
44 Oaks Landing Road
PO Box 1268
Saluda, Va. 23149

Email: c.english@co.middlesex.va.us

IFB Number: Invitation to Bid MWA2026-01
Title: Middlesex Water Authority
Dove Haven Water Main Replacement

Issue Date: June 15, 2026

Proposal Due Date: July 2, 2026 at 2:00 P.M

The Middlesex Water Authority (MWA) invites bids\ from qualified firms (Offerors) to perform the Dove Haven Water Main Replacement. Bids will be received by Thursday, July 2, 2026 at 2:00 pm prevailing time. Bids received after the announced time and date for receipt will remain unopened. Bid documents are available on the County's website at www.co.middlesex.va.us under the Business Tab.

Please provide **your bid form** to the address below. Please clearly mark your bid as **ITB MWA2026-01 (Dove Haven Water Main Replacement)**

If using the United States Postal Service

Middlesex Water Authority
Attention Chip England
PO Box 1268
Saluda, Virginia 23149

For methods that will not use a PO Box

Middlesex Water Authority
Attention Chip England
44 Oaks Landing Road
Saluda, Virginia 23149

In lieu of submitting paper bids, bidders may email a bid, in PDF form only, to c.England@co.middlesex.va.us. The official date and time used in receipt of responses is the timestamp associated when emails are received. Type "ITB MWA2026-01 Dove Haven Water Main Replacement" in the subject line. Ensure electronic delivery by verifying you receive an acceptance receipt.

SPECIFICATIONS
Invitation to Bid MWA2026-01

PROJECT: Middlesex Water Authority
Dove Haven Water Main Replacement

PLACE: Deltaville, VA 23043

SUBMIT RESPONSES TO:

Chip England, Executive Director
Middlesex Water Authority
P.O. Box 1268
44 Oaks Landing Road
Saluda, VA 23149

OR

In lieu of submitting paper bids, bidders may email a bid, in PDF form only, to c.England@co.middlesex.va.us. The official date and time used in receipt of responses is the timestamp associated when emails are received. Type the ITB number and name in the subject line- **“ITB MWA2026-01 Dove Haven Water Main Replacement.”** Please ensure electronic delivery by verifying you receive an acceptance receipt.

BID DUE DATE: Thursday July 2, 2026 @ 2:00 P.M.

Sealed bids will be received through the Bid Due Date and time as stated above, in the Middlesex Water Authority Offices. Envelopes are to be marked **“ITB MWA2026-01 Dove Haven Water Main Replacement.”** Bid opening will take place in the Middlesex Water Authority office located at 44 Oaks Landing Road, Saluda, Virginia.

I. **SCOPE OF WORK**

- A. The Middlesex Water Authority (MWA) was established in 2014 and consists of a water system that runs from two wells located off Urbanna Road to the eastern edge of Deltaville and Stingray Point. Collectively, the two wells have a source capacity of 1,152,000 gpd supplying the water system which currently has a 383,526 gpd permitted capacity. The system serves properties along Urbanna Road, General Puller Highway, and numerous properties located along secondary and private roads in the Deltaville area. Currently, MWA serves approximately 740 customers.
- B. The Middlesex Water Authority, (MWA), is seeking qualified contractors to construct the Dove Haven Water Main Replacement project.

C. The scope of work bid specifications and plans are included in Appendix A.

II **ADDITIONAL INFORMATION**

- A. Work is primarily to be done between the hours of 8:00 A.M. - 4:30 P.M, please advise of any special considerations you may have.
- B. Work is to be done within existing public rights-of-way and utility easements. Any required VDOT permits or other permits associated with the work are the responsibility of the Contractor.
- C. The Contractor shall ensure that its staff is drug free. No alcohol or drug use shall be permitted on County property. Smoking is not allowed in County buildings. Staff employed by the Contractor shall not work in any County building while under the influence of non-prescribed drugs and only if consistent with the usage restrictions of prescribed drugs.
- D. Questions are to be submitted via email to c.England@co.middlesex.va.us, no later than 4:30 PM, June 24, 2026.

III **BID INFORMATION**

A. INDEMNIFICATION/HOLD HARMLESS

The bidder (s) awarded shall indemnify, defend and hold the MWA, and all of its respective officers, agents and employees harmless against any and all claims, actions, demands, losses, liabilities, and damages of whatsoever kind or nature, whether prosecuted by Awarded Bidder(s) or by third parties, resulting from any act, action, or omission (except if caused by the willful misconduct of MWA and its agents), including but not limited to personal injuries including death, property damage or any other loss to the extent arising out of, incidental to or in any way connected to the awarded bidder(s) activities on or its use and occupation of the Site. The provisions of this Article shall survive the Term of this Contract as such provisions may relate to Awarded Bidder's obligation to indemnify, defend and hold harmless the State of Virginia, the MWA, and all of their respective officers, agents and employees from and against any claim or demand that arose during the time this Contract was in force and effect.

B. INSURANCE

The Contractor shall maintain and provide evidence of having worker's compensation insurance at the time of signing the contract.

The Contractor acknowledges that he is an independent contractor, and not an agent or employee of the MWA. The Contractor further agrees to indemnify and hold harmless the MWA, its officers, agents, officials and employees free from any loss, claim, demand, liability, cost or suit of whatsoever nature arising out of or in any way related to the work to be performed by the Contractor herein. The Contractor shall procure, and shall maintain throughout the life of the Contract, Workers Compensation and Commercial General Liability Insurance, and shall provide the County with proof of same. These insurances shall be in the following amounts:

General Aggregate	\$2,000,000.00
Each Occurrence	\$1,000,000.00
Personal & Adv. Injury	\$1,000,000.00
Each Occurrence	\$1,000,000.00

C. PRESERVATION OF PROPERTY

The Awarded Bidder(s) shall preserve and protect from damage all public and private property located in the offices and buildings as noted, excepting natural wear and tear of surfaces and equipment occurring as a result of the lawful use thereof by the Awarded Bidder(s) for the purposes contracted. Whenever such property is damaged due to the activities of the Awarded Bidder(s), it shall be immediately restored to a condition similar or equal to the condition that existed before such damage or injury occurred. Repair or restoration of the damaged property shall be accomplished at the Awarded Bidder’s sole expense and in a manner acceptable to the owner thereof.

The Awarded Bidder(s) shall at all times conduct their operations in such a manner and in such sequence as to ensure the least practicable interference with employees and the public visiting the County buildings.

D. TIMELINE

To be considered, bids must be received by the due date noted below and on the Invitation to Bid. Bids received after the specified time will be returned unopened. The tentative timeline is as follows:

June 15, 2026	Bid advertised and posted
June 24, 2026	Deadline for submitted questions / clarifications by potential bidders – ALL questions must be submitted, via email to a.ricardi@co.middlesex.va.us
June 25, 2026	Answers provided to any questions/clarifications
July 2, 2026 2PM	Bids due MWA Office
July 6 – July 10	Bids reviewed and references checked
July 16, 2026	Bid awarded by MWA Board of Directors
July 20, 2026	Expected date for Issuance of Notice to Proceed
September 30, 2026	Expected completion date

E. BID SIGNATURE REQUIRED

All bids must be signed by a representative with the authority to bind the company with his/her signature.

F. PRICES ARE FIRM

Bid prices will be assumed firm for 90 days after the opening of the bids unless otherwise stated by MWA or the bidder.

G. CHANGE ORDER

Any changes to an existing purchase order or contract must be approved in advance in writing through the Office of the MWA Executive Director. MWA will not assume any responsibility for the cost of changes without prior approval.

H. AWARD OF BID

Award shall be made to the lowest responsive and responsible bidder.

BID FORM (FOUR PAGES)
Please complete all sections

In lieu of submitting paper proposals, bidders may email a proposal, in PDF form only, to c.England@co.middlesex.va.us. The official date and time used in receipt of responses is the timestamp associated when emails are received. Type the IFB number and name in the subject line. Please ensure electronic delivery by verifying you receive an acceptance receipt.

Part A Company Narrative

Either below, or on a separate cover letter, identify:

Your company's name and relevant experience.

Company's legal name	
Number of years the company has been in business under its present business name.	
Name of staff assigned to this project.	
Any other relevant information about your company.	

Part B Bid

Identify the price to complete the renovation in the box below.

PRICING The bidder has carefully examined the annexed form of specifications and instructions to bidders and hereby declares that they will furnish the construction services called for in the manner prescribed in the specifications and instructions to bidders for the following price: The bid shall include applicable fees, permits, and taxes.

Dove Haven Water Main Replacement

\$ _____ And _____/100 Dollars

MWA reserves the right to reject any and all submissions, in whole or in part, and to waive any non-conformance in proposals or any irregularities received, whenever such rejection or waiver is in the best interest of MWA. The MWA will be the sole judge of which proposal will be in its best interest and its decision will be final.

The MWA reserves the right to award to multiple vendors or split the award.

Part C - References

Either below or on a separate page, identify three (3) current or recent client references, either commercial or governmental, that your company is servicing, has serviced, or has provided similar goods or services.

Part D – Acknowledgement and Signatures

Acknowledgment of Addenda (if applicable)

Addenda 1 Signature _____

Addenda 2 Signature _____

In compliance and subject to the documents therein specified, all of which are incorporated herein by reference, the undersigned bidder proposes to furnish all labor and perform all work necessary to carry out and complete this project. The contractor below certifies a thorough understanding of the project work. I certify that the firm name given below is the true and complete name of the Bidder and that the Bidder is legally qualified to perform all Work included in the scope of the Contract.

Bidder _____
(Name of Firm)

By _____
(Signature)

(Typed/Printed Name)

(Title)

FEIN/SSN _____ (or attach W-9)

Business Address:

Telephone # _____

Responses due by
July 2, 2026 at 2:00 P.M

**Responses due by
July 2, 2026 at 2:00 P.M**

Reply to:

Middlesex Water Authority
Chip England
44 Oaks Landing Road
PO Box 1268
Saluda, Va. 23149

Appendix A Bid Specifications

Dove Haven Water Main Replacement

This project is to be constructed in accordance with the following Specifications:

SPECIFICATIONS:

1. The Virginia Department of Transportation Road and Bridge Specifications dated 2020, including all subsequent revisions, Supplemental Specifications, and Special Provisions thereto.
2. The Virginia Department of Transportation's Road and Bridge Standards, dated 2016, including all subsequent revisions, Supplemental Specifications, and Special Provisions thereto.
3. The latest editions of the National Manual on Uniform Traffic Control Devices (MUTCD) and the Virginia Manual on Uniform Traffic Control Devices (Virginia MUTCD).
4. Virginia Work Area Protection Manual – Version 11.0

BID ITEM NO. 1 — WATER MAIN INSTALLATION AND APPURTENANCES — LUMP SUM

Measurement and Payment

Furnish and install the proposed water main improvements complete in place, including approximately **350 LF of 2.5-inch Type K hard copper water main** and **550 LF of 2-inch HDPE DR 11 water main**, connections to existing main and meters, water services, curb stop and box, fittings, transition couplings, flushing hydrant/blow-off, tracing wire, warning tape, bedding, excavation, backfill, testing, disinfection, flushing, and all related appurtenances.

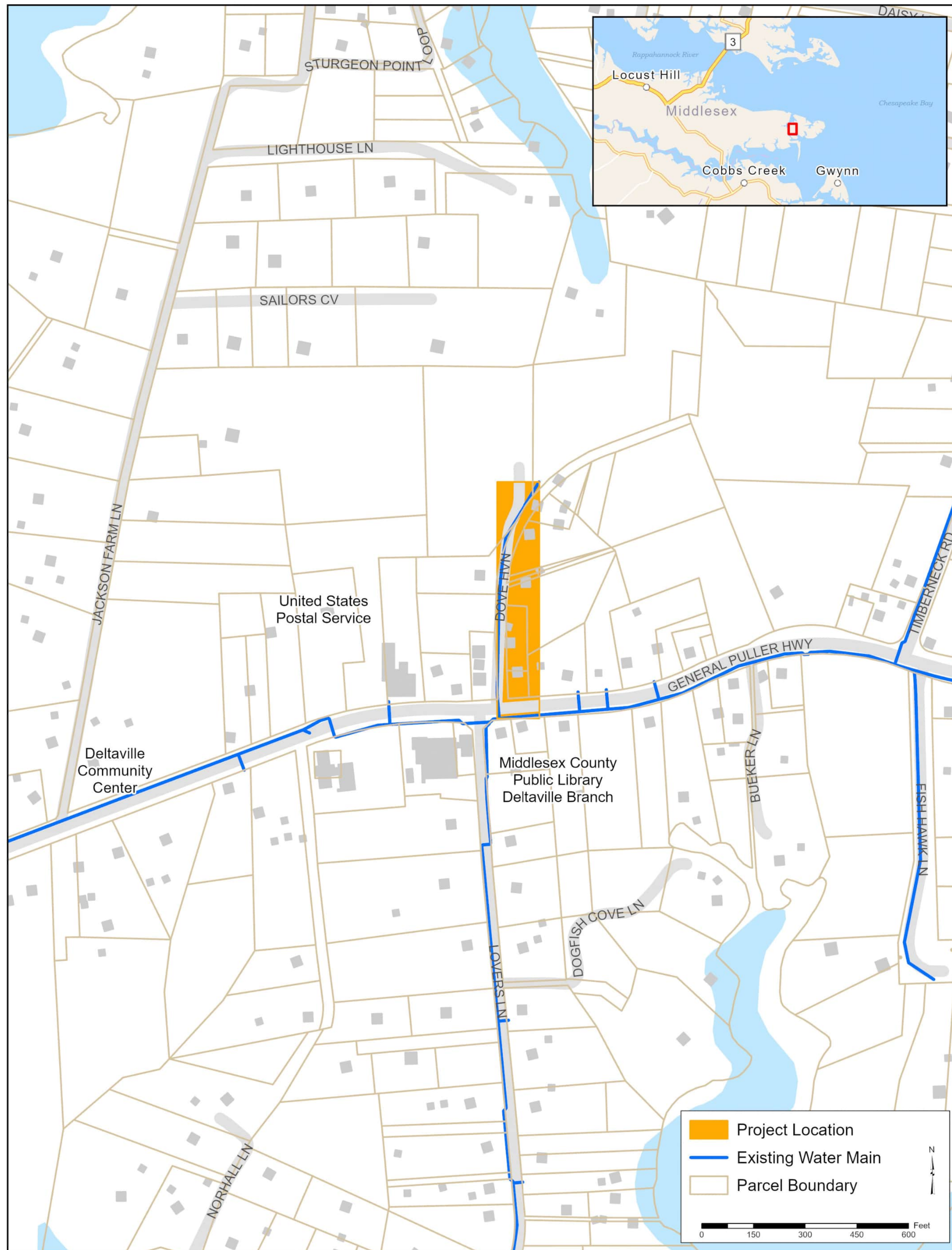
Work shall also include abandonment and/or removal of existing water main and services as shown, coordination with the Owner/Operator for shutdowns and tie-ins, utility locating/test holes, shop drawings, record information, and restoration of disturbed sidewalk, pavement, grass, and other surfaces.

This item will be measured as **one lump sum** for the completed and accepted work.

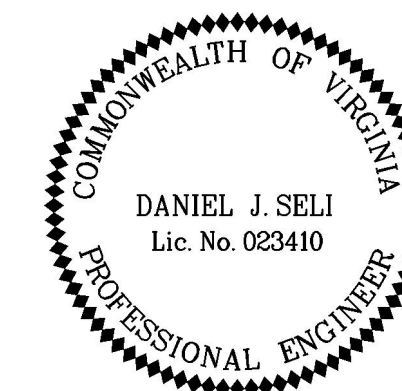
Payment will be made at the **contract lump sum price** and shall be full compensation for all labor, materials, equipment, testing, coordination, restoration, and incidentals necessary to complete the water main installation and appurtenant work shown on the Plans and required by the Specifications. No separate payment will be made for incidental items.

Middlesex Water Authority

Dove Haven Water Main Replacement



INDEX OF UTILITY SHEETS	
SHEET NO.	DESCRIPTION
1	COVER SHEET, PROJECT LOCATION MAP, SHEET INDEX & QUANTITIES
2	GENERAL NOTES
3	NOTES (GENERAL & WATER)
4	PLAN SHEET
5	WATER CONSTRUCTION DETAILS



Daniel J Selj
2026.06.11 12:53:01 -04'00'

FINAL PLANS

NO.	DATE	BY	REVISIONS

GRAPHIC SCALES



Whitman, Requardt & Associates, LLP
9030 Stony Pint Parkway, Suite 220, Richmond, Virginia 23235

Plans represent minimum design requirements only. Utility locations are shown based on available GIS data and field measurements obtained after a Miss Utility request; actual field conditions may vary."

SCALE:	
HORIZ:	
VERT:	
DATE:	JUNE 2026
DESIGNED:	RKW
DRAWN:	WEH
CHECKED:	BHC
PROJECT NO.:	

MIDDLESEX WATER AUTHORITY 44 Oakes Landing Rd, Saluda VA 23149
DOVE HAVEN WATER MAIN REPLACEMENT
COVER SHEET

SHEET	1
OF	5

GENERAL CONSTRUCTION NOTES

- G1. THE CONTRACTOR SHALL FURNISH SHOP DRAWINGS TO THE ENGINEER PRIOR TO THE CONSTRUCTION AND/OR INSTALLATION OF ANY MIDDLESEX WATER AUTHORITY (MWA) FACILITIES AND RELATED ITEMS. ANY ITEMS INSTALLED PRIOR TO APPROVAL OF SHOP DRAWINGS IS AT THE CONTRACTOR'S RISK AND IS SUBJECT TO REMOVAL AND CORRECT INSTALLATION AT THE CONTRACTOR'S EXPENSE.
- G2. THE LOCATION, DEPTHS AND SIZES OF EXISTING UTILITIES SHOWN ON THE UTILITY ADJUSTMENT PLANS ARE SHOWN BASED ON AVAILABLE GIS DATA AND FIELD MEASUREMENTS OBTAINED AFTER A MISS UTILITY REQUEST. THE CONTRACTOR SHALL FIELD VERIFY LOCATION, ELEVATION, TYPE AND SIZE OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO EXCAVATION OR ORDERING MATERIALS FOR THIS PROJECT. THE LOCATION OF EXISTING FACILITIES ALONG THE PROPOSED WORK ARE NOT NECESSARILY SHOWN ON THE PLANS, AND IF SHOWN, THE LOCATION, DEPTH, AND DIMENSION OF SUCH FACILITY IS APPROXIMATE. THE CONTRACTOR SHALL DIG THE NECESSARY TEST HOLES FOR THE PURPOSE OF LOCATING EXISTING UNDERGROUND FACILITIES. SUCH EXCAVATION SHALL NOT BE UNDERTAKEN WITHOUT 48 HOURS PRIOR NOTICE TO THE OWNER OF THE EXISTING FACILITY.
- G3. ALL VALVES ON THE EXISTING WATER SYSTEM SHALL BE OPERATED BY MWA. CONTACT R.P. FINCH, THE OPERATOR, AT TELEPHONE NUMBER (757) 603-5244 TO HAVE MWA FORCES OPERATE ALL VALVES.
- G4. ALL PROPOSED WATER MAINS SHALL HAVE A MINIMUM COVER OF 36 INCHES FROM THE FINAL GRADE TO THE TOP OF THE PIPE OR AS OTHERWISE DIRECTED BY THE ENGINEER. THIS 36 INCHES WILL BE BELOW THE EDGE OF PAVEMENT OR EXISTING GROUND, WHICHEVER IS LOWER. ALL WATER LINES, VALVES, AND APPURTENANCES SHALL BE CONSTRUCTED TO A DEPTH THAT WILL PROVIDE ADEQUATE PROTECTION AGAINST FREEZING AND THAWING. NEW INSTALLATION OF WATER LINES ADJACENT TO ROADWAYS SHALL HAVE A MINIMUM OF 36 INCHES OF COVER FROM EXISTING/PROPOSED EDGE OF PAVEMENT. GREATER DEPTHS SHALL BE REQUIRED WHERE STREET GRADES WILL POSSIBLY BE LOWERED IN THE FUTURE. CLEARANCE SHALL BE PROVIDED FOR ENLARGEMENT OF UNDERSIZED DRAINAGE STRUCTURES. ANY DEVELOPMENT WHICH TAKES PLACE OVER AN EXISTING WATER MAIN SHALL BE REQUIRED TO MAINTAIN THE WATER MAIN AT A MAXIMUM DEPTH OF 10' BELOW FINISHED GRADE. WHERE THE DEPTH EXCEEDS 10' THE WATER MAIN SHALL BE RAISED TO THE STANDARD MINIMUM DEPTH OF 36". VALVES ARE TO BE LOCATED SO THAT THEY ARE AT A MINIMUM DEPTH WHENEVER POSSIBLE. ALL WATER MAINS MUST HAVE A MINIMUM TEMPORARY COVER DURING CONSTRUCTION OF 2 FEET (24 INCHES).

GENERAL CONSTRUCTION NOTES (continued)

- G5. ALL WATER MAINS SHALL BE INSTALLED BY CUT SHEETS. CUT SHEETS SHALL PROVIDE LINE AND GRADE HUBS AT 50-FOOT INTERVALS TO ACCURATELY ENSURE PROPER LOCATION OF WATER MAIN AND APPURTENANCES TO INCLUDE FINISHED GRADE CENTERLINE STAKES FITTINGS. CUT SHEETS SHALL BE PROVIDED BY THE CONTRACTOR TO THE INSPECTOR WELL IN ADVANCE AND PRIOR TO CONSTRUCTION, TO ASSURE ADEQUATE REVIEW AND APPROVAL, SO THAT NO DELAY IN UTILITY INSTALLATION WILL OCCUR.
- G6. THE CONTRACTOR SHALL RECORD AND PROVIDE TO THE ENGINEER ACTUAL GROUND AND TOP OF PIPE ELEVATIONS AT ALL FITTINGS, VALVES, BLOW-OFFS, AIR RELEASE VALVES, CONNECTION POINTS, AND AT ALL CHANGES IN ALIGNMENT NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL ALSO PROVIDE ACTUAL STATIONS AND OFFSETS OF ALL FITTINGS, VALVES, BLOW-OFFS, AIR RELEASE VALVES, CONNECTION POINTS, AND ALIGNMENT CHANGES, TIED TO THE CONSTRUCTION CENTERLINE OR OTHER APPROVED PROJECT CONTROL, WITHIN FIVE (5) DAYS OF COMPLETION OF THE WATER MAIN INSTALLATION. PIPE JOINT DEFLECTION SHALL NOT EXCEED 50% OF THE MANUFACTURER'S RECOMMENDATIONS.
- G7. CONTRACTOR IS TO PROVIDE AT LEAST A SEVEN (7) DAY NOTICE TO MWA FOR COMPLETING A FINAL "WALK THROUGH."
- G8. ABANDONMENT:
 - A. ALL IN-LINE VALVES ON ABANDONED WATER MAINS SHALL BE CLOSED. THE CONTRACTOR SHALL REMOVE THE TOP VALVE BOX SECTION AND BACKFILL WITH SAND OR OTHER APPROVED MATERIAL. ALL ABANDONED PIPE WITH OPEN ENDS SHALL BE PLUGGED WITH CONCRETE AND MADE WATERTIGHT, IN ACCORDANCE WITH CURRENT VDOT STANDARDS. PIPE ABANDONMENT SHALL BE IN ACCORDANCE WITH SECTION 520.03 OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS, LATEST REVISION.
 - B. ALL WATER SERVICES SHALL BE PROPERLY ABANDONED AT THE MAIN. FOR WATER, TURN OFF THE CORPORATION STOP AND CRIMP THE ENDS. REMOVE THE SERVICE LINE.
 - C. THE ENDS OF ALL MAINS TO REMAIN ACTIVE SHALL BE CAPPED OR PLUGGED AND THRUST BLOCKED.
- G9. SYSTEM TIE-INS AND CONNECTIONS:
 - A. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER, FOR APPROVAL BY MWA, A SEQUENCE OF UTILITY CONSTRUCTION. THE SEQUENCE OF CONSTRUCTION SHALL CONSIST OF A PRELIMINARY LIST OF DATES FOR UTILITY TIE-INS, CONNECTIONS AND SHUTDOWNS. THE CONTRACTOR SHALL ALSO PROVIDE AT THIS TIME THE ANTICIPATED SHUTDOWN TIME REQUIRED AND THE ANTICIPATED TIME OF DAY SCHEDULED FOR TIE-INS, CONNECTIONS AND SHUTDOWNS.
 - B. THE CONTRACTOR SHALL GIVE 48 HOURS NOTICE TO THE ENGINEER AND MWA FOR EACH CONNECTION AND/OR ADJUSTMENT TO EXISTING FACILITIES OWNED BY MWA.

GENERAL CONSTRUCTION NOTES (continued)

- C. ALL WATER LINE TIE-INS TO THE EXISTING DISTRIBUTION SYSTEM INCLUDING VERTICAL AND HORIZONTAL RELOCATIONS SHALL BE COORDINATED BY THE MWA OPERATOR. NORMAL TIE-INS SHALL BE SCHEDULED TUESDAY THRU THURSDAY FROM 9:00 A.M. TO 4:00 P.M. TIE-INS MAY BE PERMITTED OUTSIDE OF THIS NORMAL TIME AND/OR DURING NIGHTTIME HOURS, ONLY AFTER A JUSTIFIED REQUEST IN WRITING HAS BEEN SUBMITTED AND APPROVED BY MWA.
- D. TIE-INS WILL NOT BE ALLOWED THE DAY BEFORE OR THE DAY OF ANY MIDDLESEX COUNTY OBSERVED HOLIDAY. THE UTILITY INSPECTOR WILL DETERMINE THE AVAILABLE TIE-IN DATE, IN COOPERATION WITH THE OPERATOR. SCHEDULING OF TIE-INS IS AT THE DISCRETION OF THE OPERATOR.
- E. THE ENGINEER AND MWA RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO PERFORM TIE-INS OUTSIDE OF THE NORMAL WORKING HOURS DETAILED ABOVE IN THE INTEREST OF PUBLIC SAFETY OR CUSTOMER SERVICE. NO CLAIM FOR ADDITIONAL COMPENSATION SHALL BE MADE BY THE CONTRACTOR WHEN SUCH OCCASIONS OCCUR.
- F. PROPER PREPARATION INCLUDING FIELD VERIFICATION OF THE PLANS SHALL BE ACCOMPLISHED TO MINIMIZE SHUTDOWN TIME AND PREVENT THE TIE-IN FROM EXCEEDING SCHEDULED SHUTDOWN TIME. SUFFICIENT PERSONNEL, EQUIPMENT AND MATERIALS SHALL BE ON SITE PRIOR TO THE WATER BEING SHUT OFF. WHERE APPLICABLE, EXCAVATION AND PREASSEMBLING OF FITTINGS SHALL BE PERFORMED. IF, IN THE OPINION OF THE ENGINEER AND INSPECTOR, SUFFICIENT RESOURCES ARE NOT AVAILABLE, THE TIE-IN WILL BE CANCELLED AND RESCHEDULED.
- G. TIE-INS INVOLVING FITTINGS SHALL INCLUDE PROVISIONS FOR TEMPORARY BLOCKING UNTIL CONCRETE BLOCKING HAS CURED.
- H. ALL PIPE AND FITTINGS USED FOR A TIE-IN ARE TO BE SWABBED WITH A 1% CHLORINE SOLUTION PRIOR TO CONNECTION.
- I. IMMEDIATELY AFTER A TIE-IN HAS BEEN MADE, ALL VALVES USED DURING THE SHUTDOWN SHALL BE VERIFIED FULLY OPEN BY THE INSPECTOR.
- J. PRIOR TO CUTTING INTO ANY WATER MAIN, THE CONTRACTOR SHALL HAVE AT THE SITE ALL FITTINGS, VALVES, PIPE AND SHALL HAVE VERIFIED IN THE PRESENCE OF THE ENGINEER AND/OR THE OPERATOR THROUGH FIELD MEASUREMENTS THAT ALL PIPING, FITTINGS AND VALVES WILL ALIGN AND FIT PROPERLY WITH THE EXISTING FACILITIES. FURTHER, ALL NEWLY CONSTRUCTED PIPE AND APPURTENANCES SHALL HAVE PASSED ALL NECESSARY TESTS IN THE PRESENCE OF THE OPERATOR AND SHALL BE CAPABLE OF CONVEYING POTABLE WATER. CONNECTION TO EXISTING LINES SHALL BE MADE ONLY AFTER THE PROPOSED LINE IS INSTALLED, TESTED AND APPROVED BY THE OPERATOR.

GENERAL CONSTRUCTION NOTES (continued)

- K. MWA WILL EXERCISE AND OPERATE VALVES IN PREPARATION FOR TIE INS. MWA CANNOT GUARANTEE THAT ALL VALVES WILL SEAT COMPLETELY. IT IS POSSIBLE THAT WATER WILL FLOW PAST THE VALVE SEAT. THE CONTRACTOR WILL NEED TO BE PREPARED PRIOR TO THE SHUTDOWN BY PROPERLY EXCAVATING AND RESTRAINING THE TIE IN. THE CONTRACTOR WILL NEED TO HAVE THE PROPER TOOLS AND EQUIPMENT AVAILABLE.
- G10. THE WORKING PRESSURE OF THE EXISTING WATER DISTRIBUTION SYSTEM IS NOMINALLY (70 PSI). THE NEW WATER MAIN SHALL BE HYDROSTATICALLY TESTED TO 1.5 TIMES THE WORKING PRESSURE OR (150 PSI), WHICHEVER IS GREATER, MEASURED AT THE HIGH POINT OF THE SYSTEM.
- G11. BACKFLOW PREVENTION:
 - BACKFLOW PREVENTION: THE NEW WATER MAIN SHALL BE KEPT ISOLATED FROM THE ACTIVE DISTRIBUTION SYSTEM BY PHYSICAL SEPARATION UNTIL HYDROSTATIC AND BACTERIOLOGICAL TESTING HAS BEEN COMPLETED AND APPROVED AND THE DISINFECTANT WATER FLUSHED OUT. WATER REQUIRED FOR HYDROSTATIC TESTING DISINFECTIONS AND FLUSHING SHALL BE SUPPLIED THROUGH A TEMPORARY APPARATUS. THE FLUSHING APPARATUS SHALL CONSIST OF A GATE VALVE AND TWO CHECK VALVES WITH APPROPRIATE REDUCERS AND A CONNECTION FOR ADDING DISINFECTION SOLUTIONS.
 - NOTES: 1. IF CONTRACTOR CANNOT DISINFECT AND FLUSH WATERLINE AS DESCRIBED ABOVE, CONTRACTOR SHALL DEVELOP AND SUBMIT AND ALTERNATE PLAN FOR REVIEW AND APPROVAL BY MWA.
- G12. EXCAVATION: THE CONTRACTOR SHALL PLUG OR CAP NEWLY LAID WATER MAIN AT THE END OF EACH DAY. PLUG OR CAP SHALL PROVIDE A WATERTIGHT SEAL. PLYWOOD OR PLASTIC IS NOT ACCEPTABLE.
- G13. FLUSHING:
 - A. THE MAIN SHALL BE FLUSHED IN THREE STAGES:
 - (1) PRIOR TO DISINFECTING BY CHLORINATION,
 - (2) FLUSHING OF THE CHLORINATED WATER,
 - (3) AND AFTER FINAL TIE-IN.
 - B. COORDINATE WITH THE ENGINEER AND THE OPERATOR FOR ALL FLUSHING ACTIVITIES. FLUSHING SHALL BE AT A VELOCITY NOT LESS THAN 3 FEET PER SECOND. ADEQUATE PROVISIONS SHALL BE MADE BY THE CONTRACTOR FOR DRAINAGE OR FLUSHING OF WATER, SO THAT NO PHYSICAL OR ENVIRONMENTAL DAMAGE RESULTS. ALL CHLORINATED WATER SHALL BE DECHLORINATED PRIOR TO DISCHARGE.

FINAL PLANS

NO.	DATE	BY	REVISIONS

GRAPHIC SCALES



Plans represent minimum design requirements only. Utility locations are shown based on available GIS data and field measurements obtained after a Miss Utility request; actual field conditions may vary.



SCALE:
 HORIZ: _____
 VERT: _____
 DATE: JUNE 2026
 DESIGNED: RKW
 DRAWN: WEH
 CHECKED: BHC
 PROJECT NO: _____

MIDDLESEX WATER AUTHORITY
 44 Oakes Landing Rd, Saluda VA 23149

DOVE HAVEN

GENERAL NOTES

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 5

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GENERAL CONSTRUCTION NOTES (continued)

GENERAL CONSTRUCTION NOTES (continued)

GENERAL CONSTRUCTION NOTES (continued)

WATER MATERIAL & CONSTRUCTION NOTES (Continued)

G14. DISINFECTING, TESTING AND FLUSHING:

A. METHOD OF CHLORINE APPLICATIONS:

- 1) THE CONTRACTOR WILL FURNISH THE PERSONNEL AND EQUIPMENT FOR DETERMINING CHLORINE SOLUTION STRENGTHS AND RESIDUALS.
- 2) CONTRACTOR SHALL USE THE CONTINUOUS FEED METHOD FOR THE DISINFECTING OF ALL WATER MAINS. WATER FROM THE EXISTING DISTRIBUTION SYSTEM OR OTHER APPROVED SOURCES OF SUPPLY SHALL BE MADE TO FLOW AT A CONSTANT, MEASURED RATE INTO THE NEWLY LAID PIPELINE. THE WATER SHALL RECEIVE A DOSE OF CHLORINE SOLUTION, ALSO FED AT A CONSTANT, MEASURED RATE. NO PILLS ARE TO BE USED IN THE PIPE. THE CHLORINE SOLUTION IS TO BE MADE BY DILUTING A 12% SODIUM HYPOCHLORITE SOLUTION AND WATER OR A 5% BLEACH SOLUTION AND WATER. THE SOLUTION IS NOT TO BE MADE BY USING GRANULAR CALCIUM HYPOCHLORITE. THE TWO RATES SHALL BE PROPORTIONED SO THAT THE CHLORINE CONCENTRATION IN THE WATER IN THE PIPE IS MAINTAINED AT A MINIMUM OF 50 MILLIGRAMS PER LITER AVAILABLE CHLORINE. TO ASSURE THAT THIS CONCENTRATION IS MAINTAINED, THE CHLORINE RESIDUAL SHALL BE MEASURED AT INTERVALS NOT EXCEEDING 2000 FEET IN ACCORDANCE WITH THE PROCEDURES OUTLINED HEREIN.

- B. AFTER THE APPLICATION RETENTION PERIOD, THE HEAVILY CHLORINATED WATER SHALL BE FLUSHED FROM THE MAIN UNTIL THE CHLORINE RESIDUAL OF THE WATER IN THE LINE TO BE TESTED IS EQUAL TO THE CHLORINE RESIDUAL IN THE EXISTING WATER LINE. ALL CHLORINATED WATER SHALL BE DECHLORINATED PRIOR TO DISCHARGE. AT THAT TIME, THE NEW SYSTEM SHALL BE VALVED OFF AND BACTERIOLOGICAL TESTING SHALL BEGIN AS INDICATED IN NOTE G15.

G15. BACTERIOLOGIC TESTS:

- A. IF TOTAL CHLORINE IS 1.5 MG/L OR LESS, BEGIN BACTERIOLOGICAL TESTING 24-HOURS AFTER FINAL FLUSH. HOWEVER, IF TOTAL CHLORINE IS GREATER THAN 1.5 MG/L, WAIT FIVE (5) DAYS OR UNTIL THE RESIDUAL DROPS TO 1.5 MG/L OR LESS, WHICHEVER IS SOONER.
- B. TEST FOR TOTAL COLIFORM/E. COLI FOR 2 CONSECUTIVE DAYS. BOTH SAMPLES MUST BE LESS THAN 1 COLONY/100 ML.
- C. TEST FOR HETEROTROPHIC PLATE COUNTS ON SECOND DAY. TEST SAMPLE MUST BE LESS THAN 500 COLONIES/ML.
- D. A MINIMUM OF TWO SAMPLES SHALL BE COLLECTED AT LEAST 24 HOURS APART AT INTERVALS DETERMINED BY THE ENGINEER AND TESTED BY A LABORATORY.

- E. SAMPLES FOR TOTAL COLIFORM/E. COLI ANALYSIS SHALL BE COLLECTED IN APPROVED STERILE BOTTLES OR BAGS TREATED WITH SODIUM THIOSULFATE PROVIDED BY THE LABORATORY. IF THE LABORATORY RESULTS INDICATE THE PRESENCE OF COLIFORM BACTERIA, THE SAMPLES ARE UNSATISFACTORY, AND DISINFECTION SHALL BE REPEATED AS PRESCRIBED ABOVE UNTIL THE SAMPLES ARE SATISFACTORY. CLEANING, DISINFECTION, AND TESTING SHALL BE UNDER THE DIRECTION OF THE INSPECTOR BUT REMAINS THE RESPONSIBILITY OF THE CONTRACTOR. WATER FOR THESE OPERATIONS WILL BE FURNISHED BY THE OWNER, BUT THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COST ASSOCIATED WITH THE LOADING, HAULING, AND DISCHARGING OF THE HEAVILY CHLORINATED WATER.

- F. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COSTS ASSOCIATED WITH BACTERIOLOGICAL TESTS.

- G16. CONNECT NEW MAIN TO EXISTING SYSTEM. ALL CONNECTING PIPE AND FITTINGS SHALL BE CLEAN AND FREE OF DEBRIS AND SHALL BE SWABBED OR SPRAYED WITH A 1% HYPOCHLORITE SOLUTION BEFORE INSTALLATION. CONNECTIONS TO EXISTING MAINS MUST BE DONE WITHIN 10 WORKING DAYS OF THE SUCCESSFUL COMPLETION OF ALL BACTERIOLOGICAL TESTS; OTHERWISE, THE DISINFECTION PROCESS SHALL BE REPEATED.

- G17. THE CONTRACTOR WILL PROVIDE ADVANCE NOTICE TO AFFECTED RESIDENTS PRIOR TO PLANNED WATER SERVICE INTERRUPTIONS OR TEMPORARY ACCESS RESTRICTIONS.

- G18. THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES, STRUCTURE, MAILBOXES, FENCES, LANDSCAPING, AND OTHER IMPROVEMENTS DURING CONSTRUCTION. ANY DAMAGED ITEMS SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.

- G19. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENCES AND DRIVEWAYS DURING CONSTRUCTION TO THE MAXIMUM EXTENT PRACTICABLE. EMERGENCY VEHICLE ACCESS SHALL BE MAINTAINED AT ALL TIMES.

- G20. ALL PAVED AND GRAVEL ROADWAY AND DRIVEWAY AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION. RESTORATION SHALL INCLUDE REPLACEMENT OF AGGREGATE MATERIAL MATCHING THE EXISTING ROADWAY SECTION AND COMPACTION IN ACCORDANCE WITH APPLICABLE VDOT SPECIFICATIONS.

- G21. IF SIDEWALKS ARE DISTURBED OR IMPACTED BY CONSTRUCTION, THE AFFECTED SIDEWALK SHALL BE REMOVED AND REPLACED FULL WIDTH BETWEEN EXISTING JOINTS. REPLACEMENT SIDEWALK SHALL MATCH THE EXISTING SIDEWALK THICKNESS, FINISH, AND CROSS SLOPE.

- G22. THE TOTAL LAND DISTURBANCE ASSOCIATED WITH THIS PROJECT IS LESS THAN 10,000 SQUARE FEET; THEREFORE, A FORMAL EROSION AND SEDIMENT CONTROL PLAN IS NOT REQUIRED.

- G23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE VDOT LAND USE PERMIT, ALL ASSOCIATED COSTS, AND COORDINATING ALL WORK WITHIN VDOT RIGHT-OF-WAY WITH VDOT PRIOR TO CONSTRUCTION.

WATER MATERIAL & CONSTRUCTION NOTES

- W1. UTILITY BEDDING AND PROTECTION FOR OPEN CUT WATER MAINS SHALL BE AS SHOWN IN VDOT STANDARD "UB-1 TYPE 1". SAND BEDDING AND INITIAL BACKFILL SHALL BE PROVIDED FOR ANY DISTURBED SOIL WITHIN 1 FOOT OF THE PIPE IN ALL DIRECTIONS.
- W2. 2" AND 2.5" COPPER WATER MAINS AND FITTINGS SHALL BE SEAMLESS TYPE "K" HARD COPPER TUBING IN ACCORDANCE WITH ASTM-B88. ALL COPPER PIPE JOINTS SHALL BE BRAZED USING LEAD-FREE BRAZING ALLOYS CONFORMING TO AWS A5.8. BRAZING MATERIALS IN CONTACT WITH POTABLE WATER SHALL COMPLY WITH NSF 61. BRAZING SHALL BE PERFORMED IN ACCORDANCE WITH AWS B2.2 AND THE COPPER TUBE HANDBOOK. BRAZE-JOINT FITTINGS SHALL CONFORM TO ASME B16.50.
- W3. PROVIDE 2" CURB STOP, BRASS, FULL PORT, BALL VALVE TYPE, IN ACCORDANCE WITH AWWA C800, SUITABLE FOR DIRECT BURIAL POTABLE WATER SERVICE.

- W4. PROVIDE CAST IRON CURB STOP BOX WITH ERIE STYLE LID SUITABLE FOR 2" CURB STOP INSTALLATION.
- W5. BRASS TRANSITION FITTINGS SUITABLE FOR CONNECTION BETWEEN 2" COPPER TUBING AND PLASTIC PIPE, INCLUDING STAINLESS STEEL STIFFENERS WHERE REQUIRED.
- W6. ALL BRASS PIPE, FITTINGS, VALVES, AND APPURTENANCES SHALL BE NO-LEAD AND SHALL COMPLY WITH NSF 61 FOR POTABLE WATER SYSTEM COMPONENTS.
- W7. 3/4" WATER SERVICE LINES SHALL BE SEAMLESS TYPE "K" SOFT COPPER TUBING IN ACCORDANCE WITH ASTM-B88. FITTINGS FOR 3/4" AND 1" MAY BE COMPRESSION TYPE. CORPORATION STOPS SHALL BE MANUFACTURED BY MUELLER CO., MODEL #H-15008; MCDONALD MODEL, #74701-T OR FORD MODEL #F-1000-3G. SERVICE SADDLES ARE REQUIRED FOR CORPORATION STOPS AND SHALL BE BRONZE WITH DOUBLE STAINLESS STEEL STRAPS.
- W8. 2-INCH HDPE PIPE INSTALLED BY HORIZONTAL DIRECTIONAL DRILL SHALL CONFORM TO AWWA C906 AND ASTM F714. INSTALLATION SHALL FOLLOW PPI TR-46, "GUIDELINES FOR USE OF MINI-HORIZONTAL DIRECTIONAL DRILLING FOR PLACEMENT OF HDPE PIPE".
- W9. ALL HDPE PIPE JOINTS SHALL BE HEAT FUSED BY QUALIFIED PERSONNEL IN ACCORDANCE WITH ASTM F2620 AND THE PIPE MANUFACTURER'S RECOMMENDATIONS.
- W10. MINIMUM BENDING RADIUS, PULLBACK FORCES, AND INSTALLATION PROCEDURES FOR HDD INSTALLATIONS SHALL CONFORM TO THE PIPE MANUFACTURER'S RECOMMENDATIONS.
- W11. WARNING TAPE SHALL BE INSTALLED 18" BELOW THE SURFACE AND DIRECTLY ABOVE OPENCUT NEW COPPER WATER LINE. WARNING TAPE SHALL BE POLYETHYLENE TAPE WITH METALLIC CORE, 2" IN WIDTH, WITH THE CONTINUOUS MESSAGE "CAUTION - WATERLINE BURIED BELOW". WARNING TAPE SHALL BE CAT #2 WAT AS MANUFACTURED BY SETON NAME PLATE CORP. OR APPROVED EQUAL.
- W12. A 14 GAUGE COPPER TRACING WIRE RATED FOR HORIZONTAL DIRECTIONAL DRILL INSTALLATION SHALL BE INSTALLED AND TAPED DIRECTLY TO THE TOP OF ALL WATERLINE PIPE IN A MANNER THAT RESULTS IN A CONTINUOUS TRACE. WIRE SHALL BE WRAPPED AROUND BLOW-OFFS AND CORPORATION STOPS. TRACING WIRE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PAY ITEM.

FINAL PLANS


NO.	DATE	BY	REVISIONS

GRAPHIC SCALES



Whitman, Requardt & Associates, LLP
9030 Stony Pint Parkway, Suite 220, Richmond, Virginia 23235

Plans represent minimum design requirements only. Utility locations are shown based on available GIS data and field measurements obtained after a Miss Utility request; actual field conditions may vary."



Daniel J Seli
2026.06.11 12:54:34 -04'00

SCALE:
HORIZ: _____
VERT: _____
DATE: **JUNE 2026**
DESIGNED: **RKW**
DRAWN: **WEH**
CHECKED: **BHC**
PROJECT NO: _____

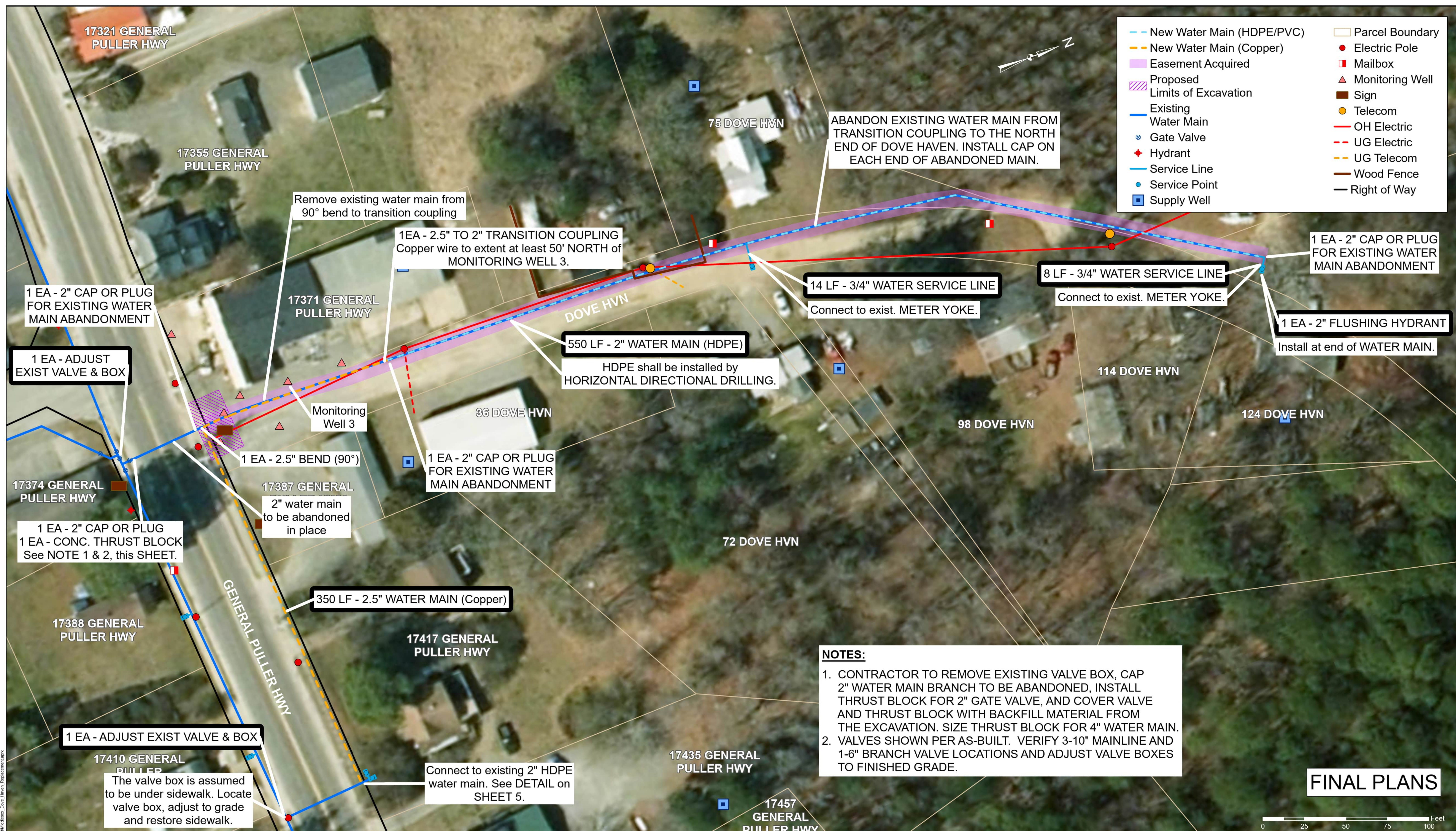
MIDDLESEX WATER AUTHORITY
44 Oakes Landing Rd, Saluda VA 23149

DOVE HAVEN

NOTES (GENERAL AND WATER)

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OF
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Path: \\H0464-007\GIS\MapInfo\MapInfo\Draw\Draw\Registration\Registration.aprx



- New Water Main (HDPE/PVC)
- New Water Main (Copper)
- Easement Acquired
- Proposed Limits of Excavation
- Existing Water Main
- Gate Valve
- ♦ Hydrant
- Service Line
- Service Point
- Supply Well
- Parcel Boundary
- Electric Pole
- Mailbox
- ▲ Monitoring Well
- Sign
- Telecom
- OH Electric
- UG Electric
- UG Telecom
- Wood Fence
- Right of Way

NOTES:

- CONTRACTOR TO REMOVE EXISTING VALVE BOX, CAP 2" WATER MAIN BRANCH TO BE ABANDONED, INSTALL THRUST BLOCK FOR 2" GATE VALVE, AND COVER VALVE AND THRUST BLOCK WITH BACKFILL MATERIAL FROM THE EXCAVATION. SIZE THRUST BLOCK FOR 4" WATER MAIN.
- VALVES SHOWN PER AS-BUILT. VERIFY 3-10" MAINLINE AND 1-6" BRANCH VALVE LOCATIONS AND ADJUST VALVE BOXES TO FINISHED GRADE.

FINAL PLANS



NO.	DATE	BY	REVISIONS

GRAPHIC SCALES

1 inch equals 25 feet

Whitman, Requardt & Associates, LLP
9030 Stony Pint Parkway, Suite 220, Richmond, Virginia 23235

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Daniel J Seli
2026.06.11 12:54:59 -04'00'

SCALE:
HORIZ: 1" = 25'
VERT: _____
DATE: JUNE 2026
DESIGNED: RKW
DRAWN: WEH
CHECKED: BHC
PROJECT NO: _____

MIDDLESEX WATER AUTHORITY
44 Oakes Landing Rd, Saluda VA 23149

DOVE HAVEN

PLAN SHEET

SHEET
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